☐ **4.** Administer prescribed vasopressors.

31. A client is to receive epoetin injections. What laboratory value should the nurse assess before giving the injection?

☐ **1.** Hematocrit.
☐ **2.** Partial thromboplastin time.
☐ **3.** Hemoglobin concentration.
☐ **4.** Prothrombin time.

32. When beginning IV erythropoietin therapy, the nurse should do which of the following? Select all that apply.

☐ **1.** Check the hemoglobin levels before administering subsequent doses.
☐ **2.** Shake the vial thoroughly to mix the concentrated white, milky solution.
☐ **3.** Keep the multidose vial refrigerated between scheduled twice-a-day doses.
☐ **4.** Administer the medication through the IV line without other medications.
☐ **5.** Adjust the initial doses according to the client's changes in blood pressure.
☐ **6.** Instruct the client to avoid driving and performing hazardous activity during the initial treatment.

33. A client is afraid of receiving vitamin B_{12} injections because of potential toxic reactions. Which is the nurse's **best** response to relieve these fears?

☐ **1.** "Vitamin B_{12} will cause ringing in the ears before a toxic level is reached."
☐ **2.** "Vitamin B_{12} may cause a very mild rash initially."
☐ **3.** "Vitamin B_{12} cause mild nausea but nothing toxic."
☐ **4.** "Vitamin B_{12} is generally free of toxicity because it is water soluble."

34. A client with microcytic anemia is having trouble selecting food from the hospital menu. Which food is **best** for the nurse to suggest for satisfying the client's nutritional needs?

☐ **1.** Egg yolks.
☐ **2.** Brown rice.
☐ **3.** Vegetables.
☐ **4.** Tea.

35. A client with macrocytic anemia has a burn on the foot and reports watching television while lying on a heating pad. Which action should be the nurse's **first** response?

☐ **1.** Assess for potential abuse.
☐ **2.** Check for diminished sensations.
☐ **3.** Document the findings.

☐ **4.** Clean and dress the area.

36. Which of the following is a late symptom of polycythemia vera?

☐ **1.** Headache.
☐ **2.** Dizziness.
☐ **3.** Pruritus.
☐ **4.** Shortness of breath.

37. The nurse is teaching a client with polycythemia vera about potential complications from this disease. Which manifestations should the nurse include in the client's teaching plan? Select all that apply.

☐ **1.** Hearing loss.
☐ **2.** Visual disturbance.
☐ **3.** Headache.
☐ **4.** Orthopnea.
☐ **5.** Gout.
☐ **6.** Weight loss.

38. When a client is diagnosed with aplastic anemia, the nurse should assess the client for changes in which of the following physiologic functions?

☐ **1.** Bleeding tendencies.
☐ **2.** Intake and output.
☐ **3.** Peripheral sensation.
☐ **4.** Bowel function.

The Client with Platelet Disorders

39. A health care provider prescribes 0.5 mg of protamine sulfate for a client who is showing signs of bleeding after receiving a 100-unit dose of heparin. The nurse should expect the effects of the protamine sulfate to be noted in which of the following time frames?

☐ **1.** 5 minutes.
☐ **2.** 10 minutes.
☐ **3.** 20 minutes.
☐ **4.** 30 minutes.

40. The nurse is to administer subcutaneous heparin to an older adult. What facts should the nurse keep in mind when administering this dose? Select all that apply.

☐ **1.** It should be administered in the anterior area of the iliac crest.
☐ **2.** The onset is immediate.
☐ **3.** Use a 27G, 5/8″ (1.6-cm) needle.
☐ **4.** Cephalosporin potentiates the effects of heparin.
☐ **5.** Double check the dose with another nurse.

41. The nurse should instruct the client with a platelet count of 31,000/μL (31×10^9/L) to:

☐ **1.** Pad sharp surfaces to avoid minor trauma when walking.
☐ **2.** Assess for spontaneous petechiae in the extremities.
☐ **3.** Keep the room darkened.
☐ **4.** Check for blood in the urine.

42. A client with a history of systemic lupus erythematosus was admitted with a severe viral respiratory tract infection and diffuse petechiae. Based on these data, it is **most** important that the nurse further evaluate the client's recent:

☐ **1.** Quality and quantity of food intake.
☐ **2.** Type and amount of fluid intake.
☐ **3.** Weakness, fatigue, and ability to get around.
☐ **4.** Length and amount of menstrual flow.

43. When a client with thrombocytopenia has a severe headache, the nurse interprets that this may indicate which of the following?

☐ **1.** Stress of the disease.
☐ **2.** Cerebral bleeding.

☐ **3.** Migraine headache.
☐ **4.** Sinus congestion.

44. The nurse evaluates that the client correctly understands how to report signs and symptoms of bleeding when the client makes which of the following statements?
☐ **1.** “Petechiae are large, red skin bruises.”
☐ **2.** “Ecchymoses are large, purple skin bruises.”
☐ **3.** “Purpura is an open cut on the skin.”
☐ **4.** “Abrasions are small pinpoint red dots on the skin.”

45. The nurse should instruct the client with a platelet count of less than 150,000/μL (150×10^9/L) to avoid which of the following activities?
☐ **1.** Ambulation.
☐ **2.** Valsalva's maneuver.
☐ **3.** Visiting with children.
☐ **4.** Semi-Fowler's position.

46. A client who is taking acetylsalicylic acid (ASA) caplets develops prolonged bleeding from a superficial skin injury on the forearm. The nurse should tell the client to do which of the following **first**?
☐ **1.** Place the forearm under a running stream of lukewarm water.
☐ **2.** Pat the injury with a dry washcloth.
☐ **3.** Wrap the entire forearm from the wrist to the elbow.
☐ **4.** Apply an ice pack for 20 minutes.

47. A client's bone marrow report reveals normal stem cells and precursors of platelets (megakaryocytes) in the presence of decreased circulating platelets. The nurse recognizes a knowledge deficit when the client makes which of the following statements?
☐ **1.** “I need to stop flossing and throw away my hard toothbrush.”
☐ **2.** “I am glad that my report turned out normal.”
☐ **3.** “Now I know why I have all these bruises.”
☐ **4.** “I shouldn't jump off that last step anymore.”

48. The nurse should assess a client with thrombocytopenia who has developed a hemorrhage for which of the following?
☐ **1.** Tachycardia.
☐ **2.** Bradycardia.
☐ **3.** Decreased $PaCO_2$.
☐ **4.** Narrowed pulse pressure.

49. The client with idiopathic thrombocytopenic purpura (ITP) asks the

nurse why it is necessary to take steroids. Which is the nurse's **best** response?

☐ **1.** Steroids destroy the antibodies and prolong the life of platelets.
☐ **2.** Steroids neutralize the antigens and prolong the life of platelets.
☐ **3.** Steroids increase phagocytosis and increase the life of platelets.
☐ **4.** Steroids alter the spleen's recognition of platelets and increase the life of platelets.

50. A client is to be discharged on prednisone. Which of the following statements indicates that the client understands important concepts about the medication therapy?

☐ **1.** "I need to take the medicine in divided doses at morning and bedtime."
☐ **2.** "I am to take 40 mg of prednisone for 2 months and then stop."
☐ **3.** "I need to wear or carry identification that I am taking prednisone."
☐ **4.** "Prednisone will give me extra protection from colds and flu."

51. When teaching the client older than age 50 who is receiving long-term prednisone therapy, the nurse should recommend which of the following?

☐ **1.** Take the prednisone with food.
☐ **2.** Take over-the-counter drugs as needed.
☐ **3.** Exercise three to four times a week.
☐ **4.** Eat foods that are low in potassium.

52. The nurse is preparing a teaching plan about increased exercise for a female client who is receiving long-term corticosteroid therapy. What type of exercise is **most** appropriate for this client?

☐ **1.** Floor exercises.
☐ **2.** Stretching.
☐ **3.** Running.
☐ **4.** Walking.

53. The nurse is teaching a female client with a history of acquired thrombocytopenia about how to prevent and control hemorrhage. Which statement indicates that the client needs further instruction?

☐ **1.** "I can apply direct pressure over small cuts for at least 5 to 10 minutes to stop a venous bleed."
☐ **2.** "I can count the number of tissues saturated to detect blood loss during a nosebleed."
☐ **3.** "I can take hormones to decrease blood loss during menses."
☐ **4.** "I can count the number of sanitary napkins to detect excess blood loss during menses."

54. A client has been on long-term prednisone therapy. The nurse should instruct the client to consume a diet high in which of the following? Select all

that apply.

☐ **1.** Carbohydrate.
☐ **2.** Protein.
☐ **3.** Trans fat.
☐ **4.** Potassium.
☐ **5.** Calcium.
☐ **6.** Vitamin D.

55. Platelets should **not** be administered under which of the following conditions?

☐ **1.** The platelet bag is cold.
☐ **2.** The platelets are 2 days old.
☐ **3.** The platelet bag is at room temperature.
☐ **4.** The platelets are 12 hours old.

56. The nurse is preparing to administer platelets. The nurse should:

☐ **1.** Check the ABO compatibility.
☐ **2.** Administer the platelets slowly.
☐ **3.** Gently rotate the bag.
☐ **4.** Use a whole blood tubing set.

57. Which of the following indicates that a client has achieved the goal of correctly demonstrating deep breathing for an upcoming splenectomy? The client:

☐ **1.** Breathes in through the nose and out through the mouth.
☐ **2.** Breathes in through the mouth and out through the nose.
☐ **3.** Uses diaphragmatic breathing in the lying, sitting, and standing positions.
☐ **4.** Takes a deep breath in through the nose, holds it for 5 seconds, and blows out through pursed lips.

58. A client is scheduled for an elective splenectomy. Immediately before the client goes to surgery, the nurse should determine that the client has:

☐ **1.** Voided completely.
☐ **2.** Signed the consent.
☐ **3.** Vital signs recorded.
☐ **4.** Name band on wrist.

59. When receiving a client from the postanesthesia care unit after a splenectomy, which should the nurse assess next after obtaining vital signs?

☐ **1.** Nasogastric drainage.
☐ **2.** Urinary catheter.
☐ **3.** Dressing.
☐ **4.** Need for pain medication.

60. The client's family asks why the client who had a splenectomy has a nasogastric (NG) tube. An NG tube is used to:

☐ **1.** Move the stomach away from where the spleen was removed.
☐ **2.** Irrigate the operative site.
☐ **3.** Decrease abdominal distention.
☐ **4.** Assess for the gastric pH as peristalsis returns.

61. A client who had a splenectomy is being discharged. Of the following discharge instructions, which is **most** specific to the client's surgical procedure?

☐ **1.** Do not drive.
☐ **2.** Alternate rest and activity.
☐ **3.** Make an appointment for the staples to be removed.
☐ **4.** Report early signs of infection.

62. What is the earliest clinical manifestation in a client with acute disseminated intravascular coagulation (DIC)?

☐ **1.** Severe shortness of breath.
☐ **2.** Bleeding without history or cause.
☐ **3.** Orthopnea.
☐ **4.** Hematuria.

63. Which of the following is contraindicated for a client diagnosed with disseminated intravascular coagulation (DIC)?

☐ **1.** Treating the underlying cause.
☐ **2.** Administering heparin.
☐ **3.** Administering warfarin sodium (Coumadin).
☐ **4.** Replacing depleted blood products.

64. A client with disseminated intravascular coagulation develops clinical manifestations of microvascular thrombosis. The nurse should assess the client for:

☐ **1.** Hemoptysis.
☐ **2.** Focal ischemia.
☐ **3.** Petechiae.
☐ **4.** Hematuria.

65. Which of the following is an assessment finding associated with internal bleeding with disseminated intravascular coagulation?

☐ **1.** Bradycardia.
☐ **2.** Hypertension.
☐ **3.** Increasing abdominal girth.
☐ **4.** Petechiae.

The Client with White Blood Cell Disorders

66. A young adult is diagnosed with infectious mononucleosis. The white blood cell (WBC) count is 19,000/μL (19×10^9/L). The client has a streptococcal throat infection, enlarged spleen, and aching muscles. Which of the following instructions should the nurse include in discharge planning with the client? Select all that apply.

☐ **1.** Stay on bed rest until the temperature is normal.
☐ **2.** Gargle with warm saline while the throat is irritated.
☐ **3.** Increase intake of fluids until the infection subsides.
☐ **4.** Wear a mask if others are present.
☐ **5.** Avoid contact sports while the spleen is enlarged.

67. The daily white blood cell (WBC) count in a client with aplastic anemia drops overnight from 3,900 to 2,900/μL (3.9 to 2.9 × 10^9/L). Which is the appropriate nursing intervention?

☐ **1.** Continue monitoring the client.
☐ **2.** Call the laboratory to verify the report.
☐ **3.** Document the finding.
☐ **4.** Call the physician and request that the client be placed in reverse isolation.

68. A client who had an exploratory laparotomy 3 days ago has a white blood cell (WBC) differential with a shift to the left. The nurse instructs unlicensed personnel to report which clinical manifestation?

☐ **1.** Swelling around the incision.
☐ **2.** Redness around the incision.
☐ **3.** Elevated temperature.
☐ **4.** Purulent wound drainage.

69. The nurse is developing a care plan for a client with leukemia. The plan should include which of the following? Select all that apply.

☐ **1.** Monitor temperature and report elevation.
☐ **2.** Recognize signs and symptoms of infection.
☐ **3.** Avoid crowds.
☐ **4.** Maintain integrity of skin and mucous membranes.
☐ **5.** Take a baby aspirin each day.

70. A client with neutropenia has an absolute neutrophil count (ANC) of 900 (0.9×10^9/L). What is the client's risk of infection?

☐ **1.** Normal risk.
☐ **2.** Moderate risk.
☐ **3.** High risk.
☐ **4.** Extremely high risk.

71. Which factor in addition to the degree of neutropenia should the nurse assess in determining the client's risk of infection?

☐ **1.** Length of time neutropenia has existed.
☐ **2.** Health status before neutropenia.
☐ **3.** Body build and weight.
☐ **4.** Resistance to infection in childhood.

72. Which nursing action is important in preventing crosscontamination?

☐ **1.** Change gloves immediately after use.
☐ **2.** Stand 2 feet (61 cm) from the client.
☐ **3.** Speak minimally when in the room.
☐ **4.** Wear long-sleeved shirts.

73. The nurse should teach the client with neutropenia and the family to avoid which of the following?

☐ **1.** Using suppositories or enemas.
☐ **2.** Using a high-efficiency particulate air (HEPA) filter mask.
☐ **3.** Performing perianal care after every bowel movement.
☐ **4.** Performing oral care after every meal.

74. The nurse should remind family members who are visiting a client with granulocytopenia to:

☐ **1.** Visit only if they do not have a cold.
☐ **2.** Wash their hands.
☐ **3.** Leave the children at home.
☐ **4.** Avoid kissing the client on the lips.

75. The nurse should remind the unlicensed personnel that which of the following is the **most** important goal in the care of the neutropenic client in isolation?

☐ **1.** Listening to the client's feelings of concern.
☐ **2.** Completing the client's care in a nonhurried manner.
☐ **3.** Completing all of the client's care at one time.
☐ **4.** Instructing the client to dispose of the tissue used after blowing the nose.

76. A nurse is obtaining consent for a bone marrow aspiration. What should

the nurse do? Select all that apply.

☐ **1.** Witness the client signing the consent form.
☐ **2.** Evaluate that the client understands the procedure.
☐ **3.** Explain the risks of the procedure to the client.
☐ **4.** Verify that the client is signing the consent form of his or her own free will.
☐ **5.** Determine that the client understands postprocedure care.

77. A client is about to undergo bone marrow aspiration of the sternum. Which of the following statements should the nurse include to provide information to the client about what the client will feel during the procedure?

☐ **1.** "You may feel a warm solution being wiped over your entire front from your neck down to your navel and out to your shoulders."
☐ **2.** "You will not feel the local anesthetic being applied because it will be sprayed on."
☐ **3.** "You will feel a pulling type of discomfort for a few seconds."
☐ **4.** "After the needle is removed, you will feel a bandage being applied around your chest."

78. Twenty-four hours after a bone marrow aspiration, the nurse evaluates which of the following as an appropriate client outcome?

☐ **1.** The client maintains bed rest.
☐ **2.** There is redness and swelling at the aspiration site.
☐ **3.** The client requests morphine sulfate for pain.
☐ **4.** There is no bleeding at the aspiration site.

79. A client states, "I don't want any more tests. Who cares what kind of leukemia I have? I just want to be treated now." Which is the nurse's **best** response?

☐ **1.** "I'm sure you are frustrated and want to be well now."
☐ **2.** "Your treatment can be more effective if it is based on more specific information about your disease."
☐ **3.** "Now, you know the tests are necessary and that you are just upset right now."
☐ **4.** "I understand how you feel."

80. During the induction stage for treatment of leukemia, the nurse should remove which items that the family has brought into the room?

☐ **1.** A Bible.
☐ **2.** A picture.
☐ **3.** A sachet of lavender.
☐ **4.** A hairbrush.

81. The nurse identifies deficient knowledge when the client undergoing induction therapy for leukemia makes which of the following statements?

☐ **1.** “I will pace my activities with rest periods.”
☐ **2.** “I can't wait to get home to my cat!”
☐ **3.** “I will use warm saline gargle instead of brushing my teeth.”
☐ **4.** “I must report a temperature of 100°F (37.7°C).”

82. A client with acute myeloid leukemia (AML) reports overhearing one of the other clients say that AML had a very poor prognosis. The client has understood that the client's physician informed the client that his physician told him that he has a good prognosis. Which is the nurse's **best** response?

☐ **1.** “You must have misunderstood. Who did you hear that from?”
☐ **2.** “AML does have a very poor prognosis for poorly differentiated cells.”
☐ **3.** “AML is the most common nonlymphocytic leukemia.”
☐ **4.** “Your doctor stated your prognosis based on the differentiation of your cells.”

83. The goal of nursing care for a client with acute myeloid leukemia (AML) is to prevent:

☐ **1.** Cardiac arrhythmias.
☐ **2.** Liver failure.
☐ **3.** Renal failure.
☐ **4.** Hemorrhage.

84. The nurse is assessing a client with chronic myeloid leukemia (CML). The nurse should assess the client for:

☐ **1.** Lymphadenopathy.
☐ **2.** Hyperplasia of the gum.
☐ **3.** Bone pain from expansion of marrow.
☐ **4.** Shortness of breath.

85. Which of the following individuals is **most** at risk for acquiring acute lymphocytic leukemia (ALL)? The client who is:

☐ **1.** 4 to 12 years.
☐ **2.** 20 to 30 years.
☐ **3.** 40 to 50 years.
☐ **4.** 60 to 70 years.

86. The client with acute lymphocytic leukemia (ALL) is at risk for infection. The nurse should:

☐ **1.** Place the client in a private room.
☐ **2.** Have the client wear a mask.
☐ **3.** Have staff wear gowns and gloves.

☐ **4.** Restrict visitors.

87. In assessing a client in the early stage of chronic lymphocytic leukemia (CLL), the nurse should determine if the client has:

☐ **1.** Enlarged, painless lymph nodes.
☐ **2.** Headache.
☐ **3.** Hyperplasia of the gums.
☐ **4.** Unintentional weight loss.

88. The nurse is planning care with a client with acute leukemia who has mucositis. The nurse should advise the client that after every meal and every 4 hours while awake the client should use:

☐ **1.** Lemon-glycerin swabs.
☐ **2.** A commercial mouthwash.
☐ **3.** A saline solution.
☐ **4.** A commercial toothpaste and brush

89. The client with acute leukemia and the health care team establish mutual client outcomes of improved tidal volume and activity tolerance. Which measure would be **least** likely to promote outcome achievement?

☐ **1.** Ambulating in the hallway.
☐ **2.** Sitting up in a chair.
☐ **3.** Lying in bed and taking deep breaths.
☐ **4.** Using a stationary bicycle in the room.

90. The nurse is evaluating the client's learning about combination chemotherapy. Which of the following statements by the client about reasons for using combination chemotherapy indicates the need for **further** explanation?

☐ **1.** “Combination chemotherapy is used to interrupt cell growth cycle at different points.”
☐ **2.** “Combination chemotherapy is used to destroy cancer cells and treat side effects simultaneously.”
☐ **3.** “Combination chemotherapy is used to decrease resistance.”
☐ **4.** “Combination chemotherapy is used to minimize the toxicity from using high doses of a single agent.”

91. In providing care to the client with leukemia who has developed thrombocytopenia, the nurse assesses the most common sites for bleeding. Which of the following is **not** a common site?

☐ **1.** Biliary system.
☐ **2.** Gastrointestinal tract.
☐ **3.** Brain and meninges.
☐ **4.** Pulmonary system.

92. The nurse's **best** explanation for why the severely neutropenic client is placed in reverse isolation is that reverse isolation helps prevent the spread of organisms:

☐ **1.** To the client from sources outside the client's environment.
☐ **2.** From the client to health care personnel, visitors, and other clients.
☐ **3.** By using special techniques to dispose of contaminated materials.
☐ **4.** By using special techniques to handle the client's linens and personal items.

The Client with Lymphoma

93. Which of the following clinical manifestations does the nurse **most** likely observe in a client with Hodgkin's disease?

☐ **1.** Difficulty swallowing.
☐ **2.** Painless, enlarged cervical lymph nodes.
☐ **3.** Difficulty breathing.
☐ **4.** A feeling of fullness over the liver.

94. A client with a suspected diagnosis of Hodgkin's disease is to have a lymph node biopsy. The nurse should make sure that personnel involved with the procedure do which of the following when obtaining the lymph node biopsy specimen for histologic examination for this client?

☐ **1.** Maintain sterile technique.
☐ **2.** Use a mask, gloves, and a gown when assisting with the procedure.
☐ **3.** Send the specimen to the laboratory when someone is available to take it.
☐ **4.** Ensure that all instruments used are placed in a sealed and labeled container.

95. The client with Hodgkin's disease undergoes an excisional cervical lymph node biopsy under local anesthesia. After the procedure, which does the nurse assess **first**?

☐ **1.** Vital signs.
☐ **2.** The incision.
☐ **3.** The airway.
☐ **4.** Neurologic signs.

96. When assessing the client with Hodgkin's disease, the nurse should observe the client for which of the following findings?

☐ **1.** Herpes zoster infections.
☐ **2.** Discolored teeth.
☐ **3.** Hemorrhage.
☐ **4.** Hypercellular immunity.

97. The client with Hodgkin's disease develops B symptoms. These manifestations indicate which of the following?

☐ **1.** The client has a low-grade fever (temperature lower than 100°F [37.8°C]).
☐ **2.** The client has a weight loss of 5% or less of body weight.
☐ **3.** The client has night sweats.

☐ **4.** The client probably has not progressed to an advanced stage.

98. The nurse is developing a discharge plan about home care with a client who has lymphoma. The nurse should emphasize which of the following?

☐ **1.** Use analgesics as needed.
☐ **2.** Take a shower with perfumed shower gel.
☐ **3.** Wear a mask when outside of the home.
☐ **4.** Take an antipyretic every morning.

99. The client asks the nurse to explain what it means that his Hodgkin's disease is diagnosed at stage 1A. Which of the following describes the involvement of the disease?

☐ **1.** Involvement of a single lymph node.
☐ **2.** Involvement of two or more lymph nodes on the same side of the diaphragm.
☐ **3.** Involvement of lymph node regions on both sides of the diaphragm.
☐ **4.** Diffuse disease of one or more extralymphatic organs.

100. A client is undergoing a bone marrow aspiration and biopsy. What is the **best** way for the nurse to help the client and two upset family members handle anxiety during the procedure?

☐ **1.** Allow the client's family to stay as long as possible.
☐ **2.** Stay with the client without speaking.
☐ **3.** Encourage the client to take slow, deep breaths to relax.
☐ **4.** Allow the client time to express feelings.

101. The nurse explains to the client with Hodgkin's disease that a bone marrow biopsy will be taken after the aspiration. What should the nurse explain about the biopsy?

☐ **1.** “Your biopsy will be performed before the aspiration because enough tissue may be obtained so that you won't have to go through the aspiration.”
☐ **2.** “You will feel a pressure sensation when the biopsy is taken but should not feel actual pain; if you do, tell the doctor so that you can be given extra numbing medicine.”
☐ **3.** “You may hear a crunch as the needle passes through the bone, but when the biopsy is taken, you will feel a suction-type pain that will last for just a moment.”
☐ **4.** “You will be shaved and cleaned with an antiseptic agent, after which the doctor will inject a needle without making an incision to aspirate out the bone marrow.”

102. A client with advanced Hodgkin's disease is admitted to hospice

because death is imminent. The goal of nursing care at this time is to:

☐ **1.** Reduce the client's fear of pain.
☐ **2.** Support the client's wish to discontinue further therapy.
☐ **3.** Prevent feelings of isolation.
☐ **4.** Help the client overcome feelings of social inadequacy.

103. The client is a survivor of non-Hodgkin's lymphoma. Which of the following statements indicates the client needs additional information?

☐ **1.** “Regular screening is very important for me.”
☐ **2.** “The survivor rate is directly proportional to the incidence of second malignancy.”
☐ **3.** “The survivor rate is indirectly proportional to the incidence of second malignancy.”
☐ **4.** “It is important for survivors to know the stage of the disease and their current treatment plan.”

The Client Who Is in Shock

104. Which of the following is the **most** important goal of nursing care for a client who is in shock?

☐ **1.** Manage fluid overload.
☐ **2.** Manage increased cardiac output.
☐ **3.** Manage inadequate tissue perfusion.
☐ **4.** Manage vasoconstriction of vascular beds.

105. Which of the following indicates hypovolemic shock in a client who has had a 15% blood loss?

☐ **1.** Pulse rate less than 60 bpm.
☐ **2.** Respiratory rate of 4 breaths/min.
☐ **3.** Pupils unequally dilated.
☐ **4.** Systolic blood pressure less than 90 mm Hg.

106. Which of the following findings is the **best** indication that fluid replacement for the client in hypovolemic shock is adequate?

☐ **1.** Urine output greater than 30 mL/h.
☐ **2.** Systolic blood pressure greater than 110 mm Hg.
☐ **3.** Diastolic blood pressure greater than 90 mm Hg.
☐ **4.** Respiratory rate of 20 breaths/min.

107. Which of the following is a risk factor for hypovolemic shock?

☐ **1.** Hemorrhage.
☐ **2.** Antigen-antibody reaction.
☐ **3.** Gram-negative bacteria.
☐ **4.** Vasodilation.

108. Which is a priority assessment for the client in shock who is receiving an IV infusion of packed red blood cells and normal saline solution?

☐ **1.** Fluid balance.
☐ **2.** Anaphylactic reaction.
☐ **3.** Pain.
☐ **4.** Altered level of consciousness.

109. The client who does not respond adequately to fluid replacement has a prescription for an IV infusion of dopamine hydrochloride at 5 mcg/kg/min. To determine that the drug is having the desired effect, the nurse should assess the client for:

☐ **1.** Increased renal and mesenteric blood flow.
☐ **2.** Increased cardiac output.
☐ **3.** Vasoconstriction.
☐ **4.** Reduced preload and afterload.

110. A client is receiving dopamine hydrochloride for treatment of shock. The nurse should:
☐ **1.** Administer pain medication concurrently.
☐ **2.** Monitor blood pressure continuously.
☐ **3.** Evaluate arterial blood gases at least every 2 hours.
☐ **4.** Monitor for signs of infection.

111. A client who has been taking warfarin has been admitted with severe acute rectal bleeding and the following laboratory results: International Normalized Ratio (INR), 8; hemoglobin, 11 g/dL (110 g/L); and hematocrit, 33% (0.33). In which order should the nurse implement the following physician prescriptions?

1. Give 1 unit fresh frozen plasma (FFP).
2. Administer vitamin K 2.5 mg by mouth.
3. Schedule client for sigmoidoscopy.
4. Administer IV dextrose 5% in 0.45% normal saline solution.

112. When assessing a client for early septic shock, the nurse should assess the client for which of the following?
☐ **1.** Cool, clammy skin.
☐ **2.** Warm, flushed skin.
☐ **3.** Increased blood pressure.

☐ **4.** Hemorrhage.

113. A client with toxic shock has been receiving ceftriaxone sodium (Rocephin), 1 g every 12 hours. In addition to culture and sensitivity studies, which other laboratory findings should the nurse monitor?

☐ **1.** Serum creatinine.
☐ **2.** Spinal fluid analysis.
☐ **3.** Arterial blood gases.
☐ **4.** Serum osmolality.

114. Which nursing intervention is **most** important in preventing septic shock?

☐ **1.** Administering IV fluid replacement therapy as prescribed.
☐ **2.** Obtaining vital signs every 4 hours for all clients.
☐ **3.** Monitoring red blood cell counts for elevation.
☐ **4.** Maintaining asepsis of indwelling urinary catheters.

115. Which of the following is an indication of a complication of septic shock?

☐ **1.** Anaphylaxis.
☐ **2.** Acute respiratory distress syndrome (ARDS).
☐ **3.** Chronic obstructive pulmonary disease (COPD).
☐ **4.** Mitral valve prolapse.

Managing Care Quality and Safety

116. A nurse has two middle-aged clients who have a prescription to receive a blood transfusion of packed red blood cells at the same time. The first client's blood pressure dropped from the preoperative value of 120/80 mm Hg to a postoperative value of 100/50. The second client is hospitalized because he developed dehydration and anemia following pneumonia. After checking the patency of their IV lines and vital signs, what should the nurse do **next**?

☐ **1.** Call for both clients' blood transfusions at the same time.
☐ **2.** Ask another nurse to verify the compatibility of both units at the same time.
☐ **3.** Call for and hang the first client's blood transfusion.
☐ **4.** Ask another nurse to call for and hang the blood for the second client.

117. When a blood transfusion is terminated following a reaction, the nurse must do which of the following? Select all that apply.

☐ **1.** Send freshly collected urine samples to the laboratory.
☐ **2.** Return the remainder of the blood component unit to the blood bank.
☐ **3.** Return the intravenous administration set to the blood bank.
☐ **4.** Alert Risk Management about the incident.
☐ **5.** Report the incident to the Infection Control Manager.

118. The nurse is administering a medication to a client with myeloid leukemia and does not know the use, dose, or side effects. To obtain the most up-to-date information about this drug, the nurse should:

☐ **1.** Check the Physician's Drug Reference (PDR) at the nurses' station.
☐ **2.** Obtain a pharmacology textbook from the hospital library.
☐ **3.** Consult the drug guide provided by the hospital on the computer or nurses' internet accessible device
☐ **4.** Review information at the drug manufacturer's website.

119. The charge nurse on a hematology/oncology unit is reviewing the policy for using abbreviations with the staff. The charge nurse should emphasize which of the following about why dangerous abbreviations need to be eliminated? Select all that apply.

☐ **1.** To ensure efficient and accurate communication.
☐ **2.** To prevent medication errors.
☐ **3.** To ensure client safety.
☐ **4.** To make it easier for clients to understand the medication prescriptions.

☐ **5.** To make data entry into a computerized health record easier.

Answers, Rationales, and Test-Taking Strategies

The answers and rationales for each question follow below, along with keys ( *) to the client need (CN) and cognitive level (CL) for each question. As you check your answers, use the* ***Content Mastery and Test-Taking Skill Self-Analysis*** *worksheet (tear-out worksheet in back of book) to identify the reason(s) for not answering the questions correctly. For additional information about test-taking skills and strategies for answering questions, refer to pages 10–21 and pages 31–32 in Part 1 of this book.*

The Client with Red Blood Cell Disorders

1.

3. Verify the client has signed an informed consent.
1. Position the client in a side-lying position.
2. Clean the skin with an antiseptic solution.
4. Apply ice to the biopsy site.

First, the nurse must verify that the client has voluntarily signed a consent form before the procedure begins, and check that the client understands the procedure. The nurse then positions the client in a side-lying, or *lateral decubitus,* position with the affected side up. Then the nurse should clean the skin site and surrounding area with an antiseptic solution such as Betadine before the health care provider numbs the site and collects the specimen. When the procedure is finished, the nurse must apply ice to the biopsy site to reduce pain.

 CN: Management of care; CL: Synthesize

2. 1, 2, 5. Nausea and vomiting are common adverse effects of oral iron

preparations. The nurse should first ask the client why the client does not want to take the oral medication, and then suggest ways to decrease the nausea and vomiting. Ginger may help minimize the nausea and the client can try this remedy and evaluate its effectiveness. Iron should be taken on an empty stomach but can be taken with orange juice. The client can evaluate if this helps the nausea. Stool softeners should not be used in clients with iron deficiency anemia. Instead, constipation can be prevented by following a high-fiber diet. Administering iron intramuscularly is done only if other approaches are not effective.

 CN: Health promotion and maintenance; CL: Synthesize

3. 1. This client is likely experiencing fatigue and should increase her periods of rest. The fatigue may be caused by anemia from depletion of red blood cells due to the chemotherapy. Asking the client to limit her activities may cause the client to become withdrawn. The information given does not support limiting activity. Increasing fluid intake will not reduce the fatigue. The information does not indicate that the client is immunosuppressed and should avoid contact with others.

 CN: Physiological adaptation; CL: Synthesize

4. 1, 2, 3. Using designated donors does not decrease the risk of contracting infectious diseases, such as the Epstein-Barr virus, HIV, or CMV. Hepatitis A is transmitted by the oral-fecal route, not the blood route; however, hepatitis B and C can be contracted from a designated donor. Malaria is transmitted by mosquitoes.

 CN: Safety and infection control; CL: Apply

5. 4. A routine serology study to confirm compatibility between a blood donor and recipient takes about 1 hour. In an emergency, O negative RBCs can be safely administered to most clients, which is why a person with O-negative blood is called a *universal donor.* The other types of RBCs may cause an adverse reaction.

 CN: Safety and infection control; CL: Apply

6. 1. One of the microcytic, hypochromic anemias is iron deficiency anemia. A rich source of iron is needed in the diet, and eggs are high in iron. Other foods high in iron include organ and muscle (dark) meats; shellfish, shrimp, and tuna; enriched, whole-grain, and fortified cereals and breads; legumes, nuts, dried fruits, and beans; oatmeal; and sweet potatoes. Dark green, leafy vegetables and citrus fruits are good sources of vitamin C. Cheese is a good source of calcium.

CN: Reduction of risk potential; CL: Apply

7. 3. Good sources of vitamin B_{12} include meats and dairy products. Whole grains are a good source of thiamine. Green, leafy vegetables are good sources of niacin, folate, and carotenoids (precursors of vitamin A). Broccoli and Brussels sprouts are good sources of ascorbic acid (vitamin C).

CN: Reduction of risk potential; CL: Apply

8. 4. Normal range of folic acid is 1.8 to 9 ng/mL (4.1 to 20.4 nmol/L), and normal range of vitamin B_{12} is 200 to 900 pg/mL (147.6 to 664 pmol/L). A low folic acid level in the presence of a normal vitamin B_{12} level is indicative of a primary folic acid deficiency anemia. Factors that affect the absorption of folic acid are drugs such as methotrexate, oral contraceptives, antiseizure drugs, and alcohol. The total bilirubin, serum creatinine, and hemoglobin values are within normal limits.

CN: Physiological adaptation; CL: Analyze

9. 2. The defining characteristic of pernicious anemia, a megaloblastic anemia, is lack of the intrinsic factor, which results from atrophy of the stomach wall. Without the intrinsic factor, vitamin B_{12} cannot be absorbed in the small intestine and folic acid needs vitamin B_{12} for deoxyribonucleic acid synthesis of RBCs. The gastric analysis is done to determine the primary cause of the anemia. An elevated excretion of the injected radioactive vitamin B_{12}, which is protocol for the first and second stages of the Schilling test, indicates that the client has the intrinsic factor and can absorb vitamin B_{12} in the intestinal tract. A sedimentation rate of 16 mm/h is normal for both men and women and is a nonspecific test to detect the presence of inflammation; it is not specific to anemias. An RBC value within the normal range does not indicate an anemia.

CN: Physiological adaptation; CL: Synthesize

10. 2. Clients with aplastic anemia are severely immunocompromised and at risk for infection and possible death related to bone marrow suppression and pancytopenia. Strict aseptic technique and reverse isolation are important measures to prevent infection. Although diet, reduced stress, and rest are valued in supporting health, the potentially fatal consequence of an acute infection places it as a priority for teaching the client about health maintenance. Animal meat and dark green leafy vegetables, good sources of vitamin B_{12} and folic acid, should be included in the daily diet. Yoga and meditation are good complementary therapies to reduce stress. Eight hours of rest and naps are good

for spacing and pacing activity and rest.

CN: Reduction of risk potential; CL: Synthesize

11. 4. Vitamin B_{12} combines with intrinsic factor in the stomach and is then carried to the ileum, where it is absorbed into the bloodstream. In this situation, vitamin B_{12} cannot be absorbed regardless of the amount of oral intake of sources of vitamin B_{12}, such as animal protein or vitamin B_{12} tablets. Vitamin B_{12} needs to be injected every month because the ileum has been surgically removed. Replacement of fluids and electrolytes is important when the client has continuous multiple loose stools on a daily basis. Warm salt water is used to soothe sore mucous membranes. Crohn's disease and a small-bowel resection may cause several loose stools a day.

CN: Physiological adaptation; CL: Analyze

12. 3. Coffee and tea increase gastrointestinal motility and inhibit the absorption of nonheme iron. Clients are instructed to add dried fruits to dishes at every meal because dried fruits are a nonheme or nonanimal iron source. Cooking in iron cookware, especially acid-based foods such as tomatoes, adds iron to the diet. Clients are instructed to add a rich supply of vitamin C to every meal because the absorption of iron is increased when food with vitamin C or ascorbic acid is consumed.

CN: Reduction of risk potential; CL: Evaluate

13. 1. It is difficult to determine activity intolerance without objectively comparing activities from one time frame to another. Because iron deficiency anemia can occur gradually and individual endurance varies, the nurse can best assess the client's activity tolerance by asking the client to compare activities 6 months ago and at present. Asking a client how long a problem has existed is a very open-ended question that allows for too much subjectivity for any definition of the client's activity tolerance. Also, the client may not even identify that a “problem” exists. Asking the client whether he is staying abreast of usual activities addresses whether the tasks were completed, not the tolerance of the client while the tasks were being completed or the resulting condition of the client after the tasks were completed. Asking the client if he is more tired now than usual does not address his activity tolerance. Tiredness is a subjective evaluation and again can be distorted by factors such as the gradual onset of the anemia or the endurance of the individual.

CN: Reduction of risk potential; CL: Analyze

14. 4, 6. A client with pernicious anemia has lost the ability to absorb

vitamin B_{12} either because of the lack of an acidic gastric environment or the lack of the intrinsic factor. Vitamin B_{12} must be administered by a deep intramuscular route. The ventrogluteal and dorsogluteal locations are the most acceptable sites for a deep intramuscular injection. The other sites are not acceptable.

CN: Pharmacological and parenteral therapies; CL: Apply

15. 2. To promote comfort when injecting at the ventrogluteal site, the position of choice is with the client lying on the abdomen with toes pointed inward. This positioning promotes muscle relaxation, which decreases the discomfort of making an injection into a tense muscle. Lying on the side with legs extended will not provide the greatest muscle relaxation. Leaning over the edge of a table with the hips flexed and standing upright with the feet apart will increase muscular tension.

CN: Physiological adaptation; CL: Apply

16. 1, 2, 3, 4. The nurse should ask the client about symptoms related to pernicious anemia because the client had the stomach stapled 2 years ago and shows no history of supplemental vitamin B_{12}. Numbness and tingling relate to a loss of intrinsic factor from the gastric stapling. Intrinsic factor is necessary for absorption of vitamin B_{12}. The nurse should suspect pernicious anemia if the client is not taking supplemental vitamin B_{12}. Other signs and symptoms of pernicious anemia include cognitive problems and depression. The nurse also should ask about the client's support at home in case the fall was not an accident. Pernicious anemia is not related to dietary intake of iron.

CN: Reduction of risk potential; CL: Analyze

17. 1. The nurse should prepare to start an intake and output record because the client is exhibiting clinical manifestations of anemia with jaundice and is demonstrating a fluid imbalance. The client does not need to be on bed rest at this point. The client is not contagious and does not need to be placed in contact isolation. The changes in the color of the skin and urine are related to the jaundice and will not be affected by sunlight.

CN: Physiological adaptation; CL: Synthesize

18. 1. Drug-induced hemolytic anemia is acquired, antibody-mediated, RBC destruction precipitated by medications, such as cephalosporins, sulfa drugs, rifampin, methyldopa, procainamide, quinidine, and thiazides. Purpura is a condition with various manifestations characterized by hemorrhages into the skin, mucous membranes, internal organs, and other tissues. Infectious emboli

are clumps of bacteria present in blood or lymph. Ecchymoses are skin discolorations due to extravasations of blood into the skin or mucous membranes.

CN: Reduction of risk potential; CL: Analyze

19. 2. Urinary vitamin B_{12} levels are measured after the ingestion of radioactive vitamin B_{12}. A 24- to 48-hour urine specimen is collected after administration of an oral dose of radioactively tagged vitamin B_{12} and an injection of nonradioactive vitamin B_{12}. In a healthy state of absorption, excess vitamin B_{12} is excreted in the urine; in a malabsorptive state or when the intrinsic factor is missing, vitamin B_{12} is excreted in the feces. Methylcellulose is a bulk-forming agent. Laxatives interfere with the absorption of vitamin B_{12}. The client is NPO 8 to 12 hours before the test but is not NPO during the test. A stool collection is not a part of the Schilling test. If stool contaminates the urine collection, the results will be altered.

CN: Pharmacological and parenteral therapies; CL: Analyze

20. 3. This client has clinical manifestations of thalassemia major, a disease found in descendants from the Mediterranean Sea area whose mother and father both possess a gene for thalassemia (ie, the client is homozygous for the gene). The severe hemolytic anemia causes sequestration of red blood cells in the spleen and liver, which leads to engorgement of the organs and chronic bone marrow hyperplasia. Rest will decrease the demands on the heart due to the diminished hemoglobin level, a physiologic concern. The nurse should follow the time schedule of the area in which the client is now living. The nurse can help the client prescribe preferred foods and listen to concerns, but the main priority is to decrease oxygen demands.

CN: Physiological adaptation; CL: Synthesize

21. 2. Most clients with pernicious anemia have deficient production of intrinsic factor in the stomach. Intrinsic factor attaches to the vitamin in the stomach and forms a complex that allows the vitamin to be absorbed in the small intestine. The stomach is producing enough acid, there is not an excessive excretion of the vitamin, and there is not a rapid production of red blood cells in this condition.

CN: Physiological adaptation; CL: Synthesize

22. 2. This client presented with the typical signs of glucose-6-phosphate dehydrogenase (G6PD)–deficiency anemia. Ten percent of Blacks inherit an X-

linked recessive disorder of the G6PD enzyme in the red blood cell (RBC). When cells with decreased levels of G6PD are exposed to certain drugs, such as sulfonamides, acetylsalicylic acid, thiazide diuretics, and vitamin K, the RBC may hemolyze and anemia and jaundice may occur. The reaction is self-limited as soon as the causative agent is withheld. No further treatment is necessary except counseling to prevent acute incidence by avoiding exposure to specific drugs. There is no need for increased folic acid, restricted activity in hot weather, or blood transfusions.

 CN: Physiological adaptation; CL: Evaluate

23. 2. The normal physiologic response to activity is an increased metabolic rate over the resting basal rate. The decrease in respiratory rate indicates that the client is not strong enough to complete the mechanical cycle of respiration needed for gas exchange. The postactivity pulse is expected to increase immediately after activity but by no more than 50 bpm if it is strenuous activity. The diastolic blood pressure is expected to rise but by no more than 15 mm Hg. The pulse returns to within 6 bpm of the resting pulse after 3 minutes of rest.

 CN: Physiological adaptation; CL: Evaluate

24. 3. The nurse should continue to monitor the client because this value reflects a normal physiologic response. The physician does not need to be called, and oxygen does not need to be started based on these laboratory findings. Immediately after surgery, the client's hematocrit reflects a falsely high value related to the body's compensatory response to the stress of sudden loss of fluids and blood. Activation of the intrinsic pathway and the renin-angiotensin cycle via antidiuretic hormone produces vasoconstriction and retention of fluid for the first 1 to 2 days postoperatively. By the second to third day, this response decreases and the client's hematocrit level is more reflective of the amount of RBCs in the plasma. Fresh bleeding is a less likely occurrence on the third postoperative day but is not impossible; however, the nurse should have expected to see a decrease in the RBC count and hemoglobin value accompanying the hematocrit.

 CN: Physiological adaptation; CL: Synthesize

25. 4. The most likely time for a blood transfusion reaction to occur is during the first 15 minutes or first 50 mL of the infusion. If a blood transfusion reaction does occur, it is imperative to keep an established IV line so that medication can be administered to prevent or treat cardiovascular collapse in case of anaphylaxis. PRBCs should be administered through a 19-gauge or larger needle; a peripherally inserted central catheter line is not recommended, in order

to avoid a slow flow. RBCs will hemolyze in dextrose or lactated Ringer's solution and should be infused with only normal saline solution.

CN: Pharmacological and parenteral therapies; CL: Synthesize

26. 1, 2, 4. The nurse should teach the client to drink plenty of fluids to avoid becoming dehydrated. The client should avoid being in high altitudes, such as mountains above 5,000 feet (1,524 m), where there is less oxygen in the air, which may precipitate a sickle cell crisis. The nurse should alert young women with sickle cell anemia that pregnancy increases the risk of a crisis. People who are homozygous for HbS have sickle cell anemia; the heterozygous form is the sickle cell carrier trait. A client with sickle cell anemia may fly on commercial airlines; the airplane is pressurized and has an adequate oxygen level.

CN: Health promotion and maintenance; CL: Synthesize

27. 2. The nurse should teach the client and family that individuals who are heterozygous for hemochromatosis rarely develop the disease. Men and women are equally at risk for hemochromatosis, but men are diagnosed earlier because women do not usually have manifestations until menopause. Hemochromatosis is the most common genetic disorder in Canada and the United States. Individuals who are homozygous for hemochromatosis received a defective gene from each parent. Those with homozygous genes may develop the disease.

CN: Health promotion and maintenance; CL: Synthesize

28.

3. Stop the transfusion.
4. Keep the IV open with normal saline infusion.
1. Notify the attending physician and blood bank.
2. Complete the appropriate Transfusion Reaction Form(s).

When the client is having a blood transfusion reaction, the nurse should first stop the transfusion and then keep the IV open with normal saline infusion. Next, the nurse should notify the physician and blood bank, then complete the required form(s) regarding the transfusion reaction.

CN: Physiological adaptation; CL: Synthesize

29. 2, 3, 5. The American Association of Blood Banks and Canadian Blood Services recommend that two qualified people, such as two registered nurses, compare the name and number on the identification bracelet with the tag on the blood bag. Verifying that the two units are the same is not a recommendation. Rather, the verification is always with the client, not with bags of blood. A unit of blood should infuse in 4 hours or less to avoid the risk of septicemia since no preservatives are used. When a blood transfusion reaction occurs, the blood transfusion should be stopped immediately, but the IV line should be kept open so that emergency medications and fluids can be administered.

The unit of PRBCs should be inspected for contamination by looking for leaks, abnormal color, clots, and excessive air bubbles. When a unit of PRBCs is being transfused, vital signs are assessed before the transfusion begins, after the first 15 minutes, and then every hour until 1 hour after the transfusion has been completed. When PRBCs are being administered, a 20-gauge or larger needle is needed to avoid destroying the red blood cells (RBCs) passing through the lumen and to allow for maximal flow rate.

CN: Pharmacological and parenteral therapies; CL: Synthesize

30. 2. ABO- and Rh-incompatible blood causes an antigen-antibody reaction that produces hemolysis or agglutination of red blood cells (RBCs). At the first indication of any sign/symptom of reaction, the blood transfusion is stopped. Blood and urine samples are obtained from the client and sent to the lab along with the remaining untransfused blood. Hemoglobin in the urine and blood samples taken at the time of the reaction provides evidence of a hemolytic blood transfusion reaction. Antihistamine, aspirin, diuretics, and vasopressors may be administered with different types of transfusion reactions.

CN: Reduction of risk potential; CL: Synthesize

31. 1. Epoetin is a recombinant DNA form of erythropoietin, which stimulates the production of red blood cells (RBCs) and therefore causes the hematocrit to rise. The elevation in hematocrit causes an elevation in the blood pressure; therefore, the blood pressure is a vital sign that should be checked. The partial thromboplastin time, hemoglobin level, and prothrombin time are not monitored for this drug.

CN: Pharmacological and parenteral therapies; CL: Analyze

32. 4, 5, 6. Erythropoietin is administered to decrease the need for blood transfusions by stimulating red blood cell (RBC) production. The medication

should be administered through the IV line without other medications to avoid a reaction. The hematocrit, a simple measurement of the percentage of RBCs in the total blood volume, is used to monitor this therapy. When initiating IV erythropoietin therapy, the nurse should monitor the hematocrit level so that it rises no more than four points in any 2-week period. In addition, the initial doses of erythropoietin are adjusted according to the client's changes in blood pressure. The nurse should tell the client to avoid driving and performing hazardous activity during the initial treatment due to possible dizziness and headaches secondary to the adverse effect of hypertension. The hematocrit, not the hemoglobin level, is used for monitoring the effectiveness of therapy. The vial of erythropoietin should not be shaken because it may be biologically inactive. The solution should not be used if it is discolored. The nurse should not re-enter the vial once it has been entered; it is a one-time use vial. All remaining erythropoietin should be discarded since it does not contain preservatives.

 CN: Pharmacological and parenteral therapies; CL: Synthesize

33. 4. Vitamin B_{12} is a water-soluble vitamin. When water-soluble vitamins are taken in excess of the body's needs, they are filtered through the kidneys and excreted. Vitamin B_{12} is considered to be nontoxic. Adverse reactions that have occurred are believed to be related to impurities or to the preservative in B_{12} preparations. Ringing in the ears, rash, and nausea are not considered to be related to vitamin B_{12} administration.

 CN: Pharmacological and parenteral therapies; CL: Synthesize

34. 2. Brown rice is a source of iron from plant sources (nonheme iron). Other sources of nonheme iron are whole-grain cereals and breads, dark green vegetables, legumes, nuts, dried fruits (apricots, raisins, dates), oatmeal, and sweet potatoes. Egg yolks have iron but it is not as well absorbed as iron from other sources. Vegetables are a good source of vitamins that may facilitate iron absorption. Tea contains tannin, which combines with nonheme iron, preventing its absorption.

 CN: Physiological adaptation; CL: Apply

35. 2. Macrocytic anemias can result from deficiencies in vitamin B_{12} or ascorbic acid. Only vitamin B_{12} deficiency causes diminished sensations of peripheral nerve endings. The nurse should assess for peripheral neuropathy and instruct the client in self-care activities for diminished sensation to heat and pain (eg, using a heating pad at a lower heat setting, making frequent checks to protect against skin trauma). The burn could be related to abuse, but this

conclusion would require more supporting data. The findings should be documented, but the nurse would want to address the client's sensations first. The decision of how to treat the burn should be determined by the physician.

 CN: Reduction of risk potential; CL: Synthesize

36. 3. Pruritus is a late symptom that results from abnormal histamine metabolism. Headache and dizziness are early symptoms from engorged veins. Shortness of breath is an early symptom from congested mucous membranes and ineffective gas exchange.

 CN: Physiological adaptation; CL: Analyze

37. 2, 3, 4, 5. Polycythemia vera, a condition in which too many red blood cells (RBCs) are produced in the blood serum, can lead to an increase in the hematocrit and hypervolemia, hyperviscosity, and hypertension. Subsequently, the client can experience dizziness, tinnitus, visual disturbances, headaches, or a feeling of fullness in the head. The client may also experience cardiovascular symptoms such as heart failure (shortness of breath and orthopnea) and increased clotting time or symptoms of an increased uric acid level such as painful, swollen joints (usually the big toe). Hearing loss and weight loss are not manifestations associated with polycythemia vera.

 CN: Reduction of risk potential; CL: Create

38. 1. Aplastic anemia decreases the bone marrow production of red blood cells (RBCs), white blood cells, and platelets. The client is at risk for bruising and bleeding tendencies. A change in the client's intake and output is important, but assessment for the potential for bleeding takes priority. Change in the peripheral nervous system is a priority problem specific to clients with vitamin B_{12} deficiency. Change in bowel function is not associated with aplastic anemia.

 CN: Physiological adaptation; CL: Synthesize

The Client with Platelet Disorders

39. 3. A dose of 0.5 mg of protamine sulfate reverses a 100-unit dose of heparin within 20 minutes. The nurse should administer protamine sulfate by IV push slowly to avoid adverse effects, such as hypotension, dyspnea, bradycardia, and anaphylaxis.

 CN: Pharmacological and parenteral therapies; CL: Evaluate

40. 1, 3, 4, 5. Older adults may have little subcutaneous tissue, so the area around the anterior iliac crest is a suitable site for these clients. The nurse should use a 27G, 5/8″ (1.6-cm) needle. Cephalosporin and penicillin potentiate the

effects of heparin. Two nurses should check the dose because a dose error could cause hemorrhage. The onset of heparin is not immediate when given subcutaneously.

 CN: Pharmacological and parenteral therapies; CL: Apply

41. 1. A client with a platelet count of 30,000 to 50,000/µL (30 to 50 × 10^9/L) is susceptible to bruising with minor trauma. Padding areas that the client might bump, scratch, or hit may help prevent minor trauma. A platelet count of 15,000 to 30,000/µL (15 to 30 × 10^9/L) may result in spontaneous petechiae and bruising, especially on the extremities. Padding measures would still be used, but the focus would be on assessing for new spontaneous petechiae. Keeping the room dark does not help the client with a low platelet count. With a count below 20,000/µL (20 × 10^9/L), the client is at risk for spontaneous bleeding from the mucous membranes and intracranial bleeding.

 CN: Reduction of risk potential; CL: Synthesize

42. 4. A recent viral infection in a female client between the ages of 20 and 30 with a history of systemic lupus erythematosus and an insidious onset of diffuse petechiae are hallmarks of idiopathic thrombocytopenic purpura. It is important to ask whether the client's recent menses have been lengthened or are heavier. Determining her ability to clot can help determine her risk of increased bleeding tendency until a platelet count is drawn. Petechiae are not caused by poor nutrition. Because of poor food and fluid intake or weakness and fatigue, the client may have gotten bruises from falling or bumping into things, but not petechiae.

 CN: Reduction of risk potential; CL: Analyze

43. 2. When the platelet count is very low, red blood cells (RBCs) leak out of the blood vessels and into the tissue. If the blood pressure is elevated and the platelet count falls to less than 15,000/µL (15 × 10^9/L), internal bleeding in the brain can occur. A severe headache occurs from meningeal irritation when blood leaks out of the cerebral vasculature. When a client has thrombocytopenia, the nurse should always assess for cerebral bleeding by checking vital signs and performing neurologic checks. Headaches can be caused by stress, migraines, and sinus congestion. However, the concern here is the risk of internal bleeding into the brain.

 CN: Health promotion and maintenance; CL: Analyze

44. 2. Large, purplish skin lesions caused by hemorrhage are called ecchymoses. Small, flat, red pinpoint lesions are petechiae. Numerous petechiae

result in a reddish, bruised appearance called purpura. An abrasion is a wound caused by scraping.

CN: Health promotion and maintenance; CL: Evaluate

45. 2. When the platelet count is less than 150,000/μL (150×10^9/L), prolonged bleeding can occur from trauma, injury, or straining such as with Valsalva's maneuver. Clients should avoid any activity that causes straining to evacuate the bowel. Clients can ambulate, but pointed or sharp surfaces should be padded. Clients can visit with their families but should avoid any scratches, bumps, or scrapes. Clients can sit in a semi-Fowler's position but should change positions to promote circulation and check for petechiae.

CN: Health promotion and maintenance; CL: Synthesize

46. 4. Aspirin has an antiplatelet effect, and bleeding time can consequently be prolonged. Intermittent use of ice packs to the site may stop the bleeding; ice causes blood vessels to vasoconstrict. Use of lukewarm water, patting the injury, and wrapping the entire forearm do not promote vasoconstriction to stop bleeding.

CN: Pharmacological and parenteral therapies; CL: Synthesize

47. 2. The client who states that the test results are normal has only heard that the bone marrow is functioning. The etiology is in the destruction of circulating platelets. Further tests must be completed to determine the cause (eg, a coating of the platelets with antibodies that are seen as foreign bodies). The bone marrow result does rule out other potential diagnoses such as anemia, leukemia, or myeloproliferative disorders that involve bone marrow depression. The client needs to stop flossing and throw away his hard toothbrush, which can lead to bleeding of the gums. The destruction of the circulating platelets accounts for the easy bruising and the need to protect oneself from further bruising. The client should not jump or increase exertion of joints, which may lead to bleeding in the joints and joint pain.

CN: Reduction of risk potential; CL: Evaluate

48. 1. The nurse observes tachycardia in the hemorrhaging client because the heart beats faster to compensate for decreased circulating volume and decreased numbers of oxygen-carrying red blood cells (RBCs). The degree of cardiopulmonary distress and anemia will be related to the amount of hemorrhage that occurred and the period of time over which it occurred. Bradycardia is a late symptom of hemorrhage; it occurs after the client is no longer able to compromise and is debilitating further into shock. If bradycardia

is left untreated, the client will die from cardiovascular collapse. Decreased $Paco_2$ is a late symptom of hemorrhage, after transport of oxygen to the tissue has been affected. A narrowed pulse pressure is not an early sign of hemorrhage.

 CN: Physiological adaptation; CL: Analyze

49. 4. ITP is treated with steroids to suppress the splenic macrophages from phagocytizing the antibody-coated platelets, which are recognized as foreign bodies, so that the platelets live longer. The steroids also suppress the binding of the autoimmune antibody to the platelet surface. Steroids do not destroy the antibodies on the platelets, neutralize antigens, or increase phagocytosis.

 CN: Pharmacological and parenteral therapies; CL: Apply

50. 3. The client needs to wear or carry information containing the name of the drug, dosage, physician and contact information, and emergency instructions because additional corticosteroid drug therapy would be needed during emergency situations. Prednisone should be taken in the morning because it can cause insomnia and because exogenous corticosteroid suppression of the adrenal cortex is less when it is administered in the morning. Prednisone must never be stopped suddenly. It must be tapered off to allow for the adrenal cortex to recover from drug-induced atrophy so that it can resume its function. Prednisone suppresses the immune response and masks infections. It does not provide extra protection against infection.

 CN: Pharmacological and parenteral therapies; CL: Evaluate

51. 1. Nausea, vomiting, and peptic ulcers are gastrointestinal adverse effects of prednisone, so it is recommended that clients take the prednisone with food. In some instances, the client may be advised to take a prescribed antacid prophylactically. The client should never take over-the-counter drugs without notifying the physician who prescribed the prednisone. The client should ask the physician about the amount and kind of exercise because of the need to establish baseline physical values before starting an exercise program and because of the increased potential for comorbidity with increasing age. The client should eat foods that are high in potassium to prevent hypokalemia.

 CN: Pharmacological and parenteral therapies; CL: Synthesize

52. 4. The best exercise for females who are on long-term corticosteroid therapy is a low-impact, weightbearing exercise such as walking or weight lifting. Floor exercises do not provide for the weightbearing. Stretching is appropriate but does not offer sufficient weightbearing. Running provides for weightbearing but is hard on the joints and may cause bleeding.

CN: Pharmacological and parenteral therapies; CL: Synthesize

53. 2. The client needs further teaching if she thinks that the number of tissues saturated represents all of the blood lost during a nosebleed. During a nosebleed, a significant amount of blood can be swallowed and go undetected. It is important that clients with severe thrombocytopenia do not take a nosebleed lightly. Clients with thrombocytopenia can apply pressure for 5 to 10 minutes over a small, superficial cut. Clients with thrombocytopenia can take hormones to suppress menses and control menstrual blood loss. Clients can also count the number of saturated sanitary napkins to approximate blood loss during menses. Some authorities estimate that a completely soaked sanitary napkin holds 50 mL.

CN: Reduction of risk potential; CL: Evaluate

54. 2, 4, 5, 6. Adverse effects of prednisone are weight gain, retention of sodium and fluids with hypertension and cushingoid features, a low serum albumin level, suppressed inflammatory processes with masked symptoms, and osteoporosis. A diet high in protein, potassium, calcium, and vitamin D is recommended. Carbohydrate would elevate glucose and further compromise a client's immune status. Trans fat does not counteract the adverse effects of steroids such as prednisone.

CN: Pharmacological and parenteral therapies; CL: Synthesize

55. 1. Platelets cannot survive cold temperatures. The platelets should be stored at room temperature and last for no more than 5 days.

CN: Pharmacological and parenteral therapies; CL: Synthesize

56. 3. The bag containing platelets needs to be gently rotated to prevent clumping. ABO compatibility is not a necessary requirement, but human leukocyte antigen (HLA) matching of lymphocytes may be completed to avoid development of anti-HLA antibodies when multiple platelet transfusions are necessary. Platelets should be administered as fast as can be tolerated by the client to avoid aggregation. Most institutions use tubing especially for platelets instead of tubing for blood and blood products.

CN: Pharmacological and parenteral therapies; CL: Synthesize

57. 4. The correct technique for deep breathing postoperatively to avoid atelectasis and pneumonia is to take in a deep breath through the nose, hold it for 5 seconds, then blow it out through pursed lips. The goal is to fully expand and empty the lungs for pulmonary hygiene.

CN: Reduction of risk potential; CL: Evaluate

58. 3. An elective surgical procedure is scheduled in advance so that all preparations can be completed ahead of time. The vital signs are the final check that must be completed before the client leaves the room so that continuity of care and assessment is provided for. The first assessment that will be completed in the preoperative holding area or operating room will be the client's vital signs. The client should have emptied the bladder before receiving preoperative medications so that the bladder is empty when it is time for transport into the operating room. The client should have signed the consent before the transport time so that if there were any questions or concerns there was time to meet with the surgeon. Also, the consent form must be signed before any sedative medications are given. The client's name band should be placed as soon as the client arrives in the perioperative setting, and it remains in place through discharge.

 CN: Physiological adaptation; CL: Analyze

59. 3. After a splenectomy, the client is at high risk for hypovolemia and hemorrhage. The dressing should be checked often; if drainage is present, a circle should be drawn around the drainage and the time noted to help determine how fast bleeding is occurring. The nasogastric tube should be connected, but this can wait until the dressing has been checked. A urinary catheter is not needed. The last pain medication administration and the client's current pain level should be communicated in the exchange report. Checking for hemorrhage is a greater priority than assessing pain level.

 CN: Physiological adaptation; CL: Analyze

60. 3. A splenectomy may involve manipulation of the upper abdominal organs, such as diaphragm, stomach, liver, spleen, and small intestines. Manipulation of these organs and resulting inflammation lead to a slowed peristalsis. An NG tube is placed to decrease abdominal distention in the immediate postoperative phase. The stomach does not need to be manipulated away from the spleen postoperatively, nor would an NG tube accomplish this. The NG tube drains gastric contents and air in the stomach; it is not in the operative site, and therefore cannot be used to irrigate it. The gastric juices are not checked as an indicator that peristalsis has returned; instead, bowel sounds are auscultated in all four quadrants to indicate the return of peristalsis.

 CN: Physiological adaptation; CL: Apply

61. 4. Clients who have had a splenectomy are especially prone to infection. The reduction of immunoglobulin M leaves the client especially at risk for immunologic deficiency infections. All clients who have had major abdominal

surgery usually receive discharge instructions not to drive because the stomach muscles are not strong enough to brake hard or quickly after the abdominal muscles have been separated. All clients need to pace activity and rest when going home after major surgery. Rest and sleep allow the growth hormone to repair the tissue, and activity allows the energy and strength to build endurance and muscle strength. An appointment is usually made to see the surgeon in the office 1 week after discharge for follow-up and to remove sutures or staples if this has not already been done.

 CN: Reduction of risk potential; CL: Synthesize

62. 2. There is no well-defined sequence for acute DIC other than that the client starts bleeding without a history or cause and does not stop bleeding. Later signs may include severe shortness of breath, hypotension, pallor, petechiae, hematoma, orthopnea, hematuria, vision changes, and joint pain.

 CN: Physiological adaptation; CL: Analyze

63. 3. DIC has not been found to respond to oral anticoagulants such as warfarin sodium (Coumadin). Treatments for DIC are controversial but include treating the underlying cause, administering heparin, and replacing depleted blood products.

 CN: Pharmacological and parenteral therapies; CL: Synthesize

64. 2. Clinical manifestations of microvascular thrombosis are those that represent a blockage of blood flow and oxygenation to the tissue that results in eventual death of the organ. Examples of microvascular thrombosis include acute respiratory distress syndrome, focal ischemia, superficial gangrene, oliguria, azotemia, cortical necrosis, acute ulceration, delirium, and coma. Hemoptysis, petechiae, and hematuria are signs of hemorrhage.

 CN: Physiological adaptation; CL: Analyze

65. 3. As blood collects in the peritoneal cavity, it causes dilation and distention, which is reflected in increased abdominal girth. The client would be tachycardic and hypotensive. Petechiae reflect bleeding in the skin.

 CN: Physiological adaptation; CL: Analyze

The Client with White Blood Cell Disorders

66. 1, 2, 3, 5. The nurse should teach this client to stay on bed rest as long as there is a fever, gargle with warm saline, and increase oral fluids to prevent dehydration from the elevated temperature. The client with an enlarged spleen should avoid contact sports due to the increased risk of injury due to the

enlargement. The client does not need to wear a mask, but should observe handwashing procedures.

CN: Basic care and comfort; CL: Create

67. 4. The client will need a prescription from the physician to be placed in reverse (protective) isolation because the normal defenses are ineffective and place the client at risk for infection (leukopenia, less than 5,000 cells/μL [5 × 10^9/L]). The faster the decrease in WBCs, the greater the bone marrow suppression, and the more susceptible the client is to infection from not only pathogenic but nonpathogenic organisms. The client will continue to be monitored, the laboratory may be called, and the report will be placed on the chart, but protection of the client must be instituted immediately.

CN: Physiological adaptation; CL: Synthesize

68. 3. A shift to the left means that more immature than mature WBCs are at the site of inflammation or infection. Immature WBCs are less effective at phagocytosis and do not produce classic signs of inflammation, such as pus, redness, swelling, or heat. Fever is the only sign; therefore, it is a significant sign of infection in a client with immature or depressed WBCs.

CN: Physiological adaptation; CL: Analyze

69. 1, 2, 3, 4. Nursing care of a client with leukemia includes managing and preventing infection, maintaining integrity of skin and mucous membranes, instituting measures to prevent bleeding, and monitoring for bleeding. Aspirin is an anticoagulant; bleeding tendencies, such as petechiae, ecchymosis, epistaxis, gingival bleeding, and retinal hemorrhages are likely due to thrombocytopenia.

CN: Reduction of risk potential; CL: Create

70. 2. A client is at moderate risk when the ANC is less than 1,000 (1 × 10^9/L). The ANC decreases proportionate to the increased risk for infection. Normal risk for infection is when the ANC is 1,500 (1.5 × 10^9/L) or greater. High risk for infection is when the ANC is less than 500 (0.5 × 10^9/L). An ANC of 100 (0.1 × 10^9/L) or less is life threatening.

CN: Physiological adaptation; CL: Analyze

71. 1. The one factor that may be more important than the degree of neutropenia in determining the risk for infection is the duration of the neutropenia.

CN: Physiological adaptation; CL: Analyze

72. 1. Bedside rails, call bells, drug-administration controls operated by the

client, and other surface areas are frequently touched by caregivers with used gloves. Changing gloves immediately after use protects the client from contamination by organisms. Cross-contamination is a break in technique of serious consequence to the severely compromised client. Standing 2 feet (61 cm) from the client, speaking minimally, and wearing long-sleeved shirts are not required in standard interventions for risk of infection.

 CN: Safety and infection control; CL: Synthesize

73. 1. The neutropenic client is at risk for infection, especially bacterial infection of the respiratory and gastrointestinal tracts. Breaks in the mucous membranes, such as those that could be caused by the insertion of a suppository or enema tube, would be a break in the first line of the body's defense and a direct port of entry for infection. The client with neutropenia is encouraged to wear a HEPA filter mask and to use an incentive spirometer for pulmonary hygiene. The client needs to know the importance of completing meticulous total body hygiene daily, including perianal care after every bowel movement, to decrease the flora at normal body orifices. The client also needs to know the importance of performing oral care after every meal and every 4 hours while the client is awake to decrease the bacterial buildup in the oropharynx.

 CN: Health promotion and maintenance; CL: Synthesize

74. 2. Washing hands before, during, and after care has a significant effect in reducing infections. It is advisable to avoid introducing a cold or children's germs and to avoid kissing on the lips, but the primary prevention technique is hand washing.

 CN: Health promotion and maintenance; CL: Synthesize

75. 4. The most common source of infection and microbial colonization in neutropenic clients is their own nonpathogenic normal flora. Attention to personal hygiene, such as oral, pulmonary, urinary, and rectal care, is essential. It is important to acknowledge the client's concerns and fears and to provide organized, nonhurried, caring care, but it is more important to teach the client how to prevent an infection that could be life-threatening.

 CN: Health promotion and maintenance; CL: Synthesize

76. 1, 2, 4, 5. The nurse can serve as a witness for consent for procedures. The nurse also ascertains whether the client has an understanding that is consistent with the procedure listed on the form, determines that the client is signing the consent of his or her own free will, and determines that the client understands postprocedure care. The nurse's role does not include explaining the

risks of the procedure; that responsibility belongs to the person who is to perform the procedure, such as the physician.

CN: Management of care; CL: Synthesize

77. 3. As the bone marrow is being aspirated, the client will feel a suction or pulling type of sensation or discomfort that lasts a few seconds. A systemic premedication may be given to decrease this discomfort. A small area over the sternum is cleaned with an antiseptic. It is unnecessary to paint the entire anterior chest. The local anesthetic is injected through the subcutaneous tissue to numb the tissue for the larger-bore needle that is used for aspiration and biopsy. After the needle is removed, pressure is held over the aspiration site for 5 to 10 minutes to achieve hemostasis. A small dressing is applied; a large pressure dressing, such as an Ace bandage, would restrict the expansion of the lungs and is not used.

CN: Psychosocial adaptation; CL: Apply

78. 4. After a bone marrow aspiration, the puncture site should be checked every 10 to 15 minutes for bleeding. For a short period after the procedure, bed rest may be prescribed. Signs of infection, such as redness and swelling, are not anticipated at the aspiration site. A mild analgesic may be prescribed. If the client continues to need the morphine for longer than 24 hours, the nurse should suspect that internal bleeding or increased pressure at the puncture site may be the cause of the pain and should consult the physician.

CN: Physiological adaptation; CL: Evaluate

79. 2. The nurse is an advocate for the client with leukemia who can be empowered with knowledge of the treatment. Immunologic, cytogenic, morphologic, histochemical, and other means are used to identify cell subtypes and stages of leukemia cell development for very specific and optimal treatment. The nurse should not label the client's feeling, such as frustration or emotional; only the client can identify her own feelings. Chastising the client is not helpful. It disavows the client's emotional state and responses to her diagnosis and involved treatment. Unless nurses have had leukemia, they cannot possibly know how the client feels even though they may be trying to offer her empathy.

CN: Psychosocial adaptation; CL: Synthesize

80. 3. The induction phase of chemotherapy is an aggressive treatment to kill leukemia cells. The client is severely immunocompromised and severely at risk for infection. Flowers, herbs, and plants should be avoided during this time. The client's Bible, pictures, and other personal belongings can be cleaned before

being brought into the room to prevent client contact with pathogenic and nonpathogenic organisms.

CN: Safety and infection control; CL: Synthesize

81. 2. The nurse identifies that the client does not understand that contact with animals must be avoided because they carry infection and the induction therapy will destroy the client's white blood cells (WBCs). The induction therapy will cause anemia, and the client will experience fatigue and will have to pace activities with rest periods. Platelet production will be decreased, and the client will be at risk for bleeding tendencies; oral hygiene will have to be provided by using a warm saline gargle instead of brushing the teeth and gums. The client will be at risk for infection owing to the decrease in WBC production and should report a temperature of 100°F (37.8°C) or higher.

CN: Safety and infection control; CL: Evaluate

82. 4. The statement "Your doctor stated your prognosis based on the differentiation of your cells" addresses the client's situation on an individual basis. The nurse is clarifying that clients have different prognoses—even though they may have the same type of leukemia—because of the cell differentiation. Stating that the client misunderstood is inappropriate for an advocate of the client and serves no useful purpose. The other statements are true but do not address this client's individual concern.

CN: Psychosocial adaptation; CL: Synthesize

83. 4. Bleeding and infection are the major complications and causes of death for clients with AML. Bleeding is related to the degree of thrombocytopenia, and infection is related to the degree of neutropenia. Cardiac arrhythmias rarely occur as a result of AML. Liver or renal failure may occur, but neither is a major cause of death in AML.

CN: Reduction of risk potential; CL: Synthesize

84. 4. Although the clinical manifestations of CML vary, clients usually have confusion and shortness of breath related to decreased capillary perfusion to the brain and lungs. Lymphadenopathy is rare in CML. Hyperplasia of the gum and bone pain are clinical manifestations of AML.

CN: Reduction of risk potential; CL: Analyze

85. 1. The peak incidence of ALL is at 4 years of age. ALL is uncommon after 15 years of age. The median age at incidence of CML is 40 to 50 years. The peak incidence of AML occurs at 60 years of age. Two-thirds of cases of chronic lymphocytic leukemia occur in clients older than 60 years of age.

CN: Physiological adaptation; CL: Analyze

86. 1. Clients with ALL are at risk for infection due to granulocytopenia. The nurse should place the client in a private room. Strict hand-washing procedures should be enforced and will be the most effective way to prevent infection. It is not necessary to have the client wear a mask. The client is not contagious and the staff does not need to wear gloves. The client can have visitors; however, they should be screened for infection and use hand-washing procedures.

CN: Physiological adaptation; CL: Synthesize

87. 4. Clients with CLL develop unintentional weight loss; fever and drenching night sweats; enlarged, painful lymph nodes, spleen, and liver; decreased reaction to skin sensitivity tests (anergy); and susceptibility to viral infections. Enlarged, painless lymph nodes are a clinical manifestation of Hodgkin's lymphoma. A headache would not be one of the early signs and symptoms expected in CLL because CLL does not cross the blood-brain barrier and would not irritate the meninges. Hyperplasia of the gums is a clinical manifestation of AML.

CN: Physiological adaptation; CL: Analyze

88. 3. Simple rinses with saline or a baking soda and water solution are effective and moisten the oral mucosa. Commercial mouthwashes and lemon-glycerin swabs contain glycerin and alcohol, which are drying to the mucosa and should be avoided. Brushing after each meal is recommended, but every 4 hours may be too traumatic. During acute leukemia, the neutrophil and platelet counts are often low and a soft-bristle toothbrush, instead of the client's usual brush, should be used to prevent bleeding gums.

CN: Reduction of risk potential; CL: Synthesize

89. 3. The client with acute leukemia experiences fatigue and deconditioning. Lying in bed and taking deep breaths will not help achieve the goals. The client must get out of bed to increase activity tolerance and improve tidal volume. Ambulating in the hall (using a HEPA filter mask if neutropenic) is a sensible activity and helps improve conditioning. Sitting up in a chair facilitates lung expansion. Using a stationary bicycle in the room allows the client to increase activity as tolerated.

CN: Reduction of risk potential; CL: Synthesize

90. 2. Combination chemotherapy does not mean two groups of drugs, one to kill the cancer cells and one to treat the adverse effects of the chemotherapy. Combination chemotherapy means that multiple drugs are given to interrupt the

cell growth cycle at different points, decrease resistance to a chemotherapy agent, and minimize the toxicity associated with use of a high dose of a single agent (ie, by using multiple agents with different toxicities).

 CN: Pharmacological and parenteral therapies; CL: Evaluate

91. 1. The biliary system is not especially prone to hemorrhage. Thrombocytopenia (a low platelet count) leaves the client at risk for a potentially life-threatening spontaneous hemorrhage in the gastrointestinal, respiratory, and intracranial cavities.

 CN: Physiological adaptation; CL: Analyze

92. 1. The primary purpose of reverse isolation is to reduce transmission of organisms to the client from sources outside the client's environment.

 CN: Safety and infection control; CL: Apply

The Client with Lymphoma

93. 2. Painless and enlarged cervical lymph nodes, tachycardia, weight loss, weakness and fatigue, and night sweats are signs of Hodgkin's disease. Difficulty swallowing and breathing may occur, but only with mediastinal node involvement. Hepatomegaly is a late-stage manifestation.

 CN: Physiological adaptation; CL: Analyze

94. 1. The nurse must ensure that sterile technique is used when a biopsy is obtained because the client is at high risk for infection. In most cases, a lymph node biopsy is sent immediately to the laboratory once it is placed in a specific solution in a closed container. It is not necessary to wear a gown and mask when obtaining the specimen. It is not necessary to use special handling procedures for the instruments used.

 CN: Management of care; CL: Apply

95. 3. Assessing for an open airway is always first. The procedure involves the neck; the anesthesia may have affected the swallowing reflex, or the inflammation may have closed in on the airway, leading to ineffective air exchange. Once a patent airway is confirmed and an effective breathing pattern established, the circulation is checked. Vital signs and the incision are assessed as soon as possible, but only after it is established that the airway is patent and the client is breathing normally. A neurologic assessment is completed as soon as possible after other important assessments.

 CN: Physiological adaptation; CL: Synthesize

96. 1. Herpes zoster infections are common in clients with Hodgkin's disease. Discoloring of the teeth is not related to Hodgkin's disease but rather to the ingestion of iron supplements or some antibiotics such as tetracycline. Mild anemia is common in Hodgkin's disease, but the platelet count is not affected until the tumor has invaded the bone marrow. A cellular immunity defect occurs in Hodgkin's disease in which there is little or no reaction to skin sensitivity tests. This is called anergy.

 CN: Physiological adaptation; CL: Analyze

97. 3. A temperature higher than 100.4°F (38°C), profuse night sweats, and an unintentional weight loss of 10% of body weight represent the cluster of clinical manifestations known as the B symptoms. Forty percent of clients with Hodgkin's disease have B symptoms, and B symptoms are more common in advanced stages of the disease.

 CN: Physiological adaptation; CL: Analyze

98. 1. Analgesics are used as needed to relieve painful encroachment of enlarged lymph nodes. Perfumed shower gel will increase pruritus. Wearing a mask does not protect the client from infection if pathogens are not spread by airborne droplets. Antipyretics should be used to treat fever symptomatically after infection is ruled out.

 CN: Health promotion and maintenance; CL: Create

99. 1. In the staging process, the designations A and B signify that symptoms were or were not present when Hodgkin's disease was found, respectively. The Roman numerals I through IV indicate the extent and location of involvement of the disease. Stage I indicates involvement of a single lymph node; stage II, two or more lymph nodes on the same side of the diaphragm; stage III, lymph node regions on both sides of the diaphragm; and stage IV, diffuse disease of one or more extralymphatic organs.

 CN: Physiological adaptation; CL: Apply

100. 3. Encouraging the client to take slow, deep breaths during uncomfortable parts of procedures is the best method of decreasing the stress response of tightening and tensing the muscles. Slow, deep breathing affects the level of carbon dioxide in the brain to increase the client's sense of well-being. Allowing the client's family to stay may be appropriate if the family has a calming effect on the client, but this family is upset and may contribute to the client's stress. Silence can be therapeutic, but when the client is faced with a potentially life-threatening diagnosis and a new, invasive procedure, taking deep

breaths will be more effective in reducing the stress response. Expressing feelings is important, but deep breathing will promote relaxation; the nurse can encourage the client to express feelings when the procedure is completed.

 CN: Psychosocial adaptation; CL: Synthesize

101. 2. A biopsy needle is inserted through a separate incision in the anesthetized area. The client will feel a pressure sensation when the biopsy is taken but should not feel actual pain. The client should be instructed to inform the physician if pain is felt so that more anesthetic agent can be administered to keep the client comfortable. The biopsy is performed after the aspiration and from a slightly different site so that the tissue is not disturbed by either test. The client will feel a suction-type pain for a moment when the aspiration is being performed, not the biopsy. A small incision is made for the biopsy to accommodate the larger-bore needle. This may require a stitch.

 CN: Psychosocial adaptation; CL: Synthesize

102. 3. Terminally ill clients most often describe feelings of isolation because they tend to be ignored, they are often left out of conversations (especially those dealing with the future), and they sense the attitudes of discomfort that many people feel in their presence. Helpful nursing measures include taking the time to be with the client, offering opportunities to talk about feelings, and answering questions honestly.

 CN: Psychosocial adaptation; CL: Synthesize

103. 2. It is incorrect that the survivor rate is directly proportional to the incidence of second malignancy. The survivor rate is indirectly proportional to the incidence of second malignancy, and regular screening is very important to detect a second malignancy, especially acute myeloid leukemia or myelodysplastic syndrome. Survivors should know the stage of the disease and their current treatment plan so that they can remain active participants in their health care.

 CN: Physiological adaptation; CL: Evaluate

The Client Who Is in Shock

104. 3. Nursing interventions and collaborative management are focused on correcting and maintaining adequate tissue perfusion. Inadequate tissue perfusion may be caused by hemorrhage, as in hypovolemic shock; by decreased cardiac output, as in cardiogenic shock; or by massive vasodilation of the vascular bed, as in neurogenic, anaphylactic, and septic shock. Fluid deficit, not fluid overload, occurs in shock.

CN: Physiological adaptation; CL: Synthesize

105. 4. Typical signs and symptoms of hypovolemic shock include systolic blood pressure less than 90 mm Hg, narrowing pulse pressure, tachycardia, tachypnea, cool and clammy skin, decreased urine output, and mental status changes, such as irritability or anxiety. Unequal dilation of the pupils is related to central nervous system injury or possibly to a previous history of eye injury.

CN: Physiological adaptation; CL: Analyze

106. 1. Urine output provides the most sensitive indication of the client's response to therapy for hypovolemic shock. Urine output should be consistently greater than 35 mL/h. Blood pressure is a more accurate reflection of the adequacy of vasoconstriction than of tissue perfusion. Respiratory rate is not a sensitive indicator of fluid balance in the client recovering from hypovolemic shock.

CN: Pharmacological and parenteral therapies; CL: Evaluate

107. 1. Causes of hypovolemic shock include external fluid loss, such as hemorrhage; internal fluid shifting, such as ascites and severe edema; and dehydration. Massive vasodilation is the initial phase of vasogenic or distributive shock, which can be further subdivided into three types of shock: septic, neurogenic, and anaphylactic. A severe antigen-antibody reaction occurs in anaphylactic shock. Gram-negative bacterial infection is the most common cause of septic shock. Loss of sympathetic tone (vasodilation) occurs in neurogenic shock.

CN: Physiological adaptation; CL: Analyze

108. 2. The client who is receiving a blood product requires astute assessment for signs and symptoms of allergic reaction and anaphylaxis, including pruritus (itching), urticaria (hives), facial or glottal edema, and shortness of breath. If such a reaction occurs, the nurse should stop the transfusion immediately, but leave the IV line intact, and notify the physician. Usually, an antihistamine such as diphenhydramine hydrochloride (Benadryl) is administered. Epinephrine and corticosteroids may be administered in severe reactions. Fluid balance is not an immediate concern during the blood administration. The administration should not cause pain unless it is extravasating out of the vein, in which case the IV administration should be stopped. Administration of a unit of blood should not affect the level of consciousness.

CN: Pharmacological and parenteral therapies; CL: Analyze

109. 2. At medium doses (4 to 8 mcg/kg/min), dopamine hydrochloride slightly increases the heart rate and improves contractility to increase cardiac output and improve tissue perfusion. When given at low doses (0.5 to 3.0 mcg/kg/min), dopamine increases renal and mesenteric blood flow. At high doses (8 to 10 mcg/kg/min), dopamine produces vasoconstriction, which is an undesirable effect. Dopamine is not given to affect preload and afterload.

CN: Pharmacological and parenteral therapies; CL: Evaluate

110. 2. The client who is receiving dopamine hydrochloride requires continuous blood pressure monitoring with an invasive or noninvasive device. The nurse may titrate the IV infusion to maintain a systolic blood pressure of 90 mm Hg. Administration of a pain medication concurrently with dopamine hydrochloride, which is a potent sympathomimetic with dose-related alpha-adrenergic agonist, beta 1-selective adrenergic agonist, and dopaminergic blocking effects, is not an essential nursing action for a client who is in shock with already low hemodynamic values. Arterial blood gas concentrations should be monitored according to the client's respiratory status and acid-base balance status and are not directly related to the dopamine hydrochloride dosage. Monitoring for signs of infection is not related to the nursing action for the client receiving dopamine hydrochloride.

CN: Pharmacological and parenteral therapies; CL: Synthesize

111.

4. Administer IV dextrose 5% in 0.45% normal saline solution.

1. Give 1 unit fresh frozen plasma (FFP)

2. Administer vitamin K 2.5 mg by mouth.

3. Schedule client for sigmoidoscopy.

Analysis of the client's laboratory results indicate that an INR of 8 is increased beyond therapeutic ranges. The client is also experiencing severe acute rectal bleeding and has a hemoglobin level in the low range of normal and a hematocrit reflecting fluid volume loss. The nurse should first establish an IV line and administer the dextrose in saline. Next the nurse should administer the

FFP. FFP contains concentrated clotting factors and provides an immediate reversal of the prolonged INR. Vitamin K 2.5 mg PO should be given next because it reverses the warfarin by returning the PT to normal values. However, the reversal process occurs over 1 to 2 hours. Last, the nurse can schedule the client for the sigmoidoscopy.

CN: Pharmacological and parenteral therapies; CL: Synthesize

112. 2. Warm, flushed skin from a high cardiac output with vasodilation occurs in warm shock or the hyperdynamic phase (first phase) of septic shock. Other signs and symptoms of early septic shock include fever with restlessness and confusion; normal or decreased blood pressure with tachypnea and tachycardia; increased or normal urine output; and nausea and vomiting or diarrhea. Cool, clammy skin occurs in the hypodynamic or cold phase (later phase). Hemorrhage is not a factor in septic shock.

CN: Physiological adaptation; CL: Analyze

113. 1. The nurse monitors the blood levels of antibiotics, white blood cells, serum creatinine, and blood urea nitrogen because of the decreased perfusion to the kidneys, which are responsible for filtering out the Rocephin. It is possible that the clearance of the antibiotic has been decreased enough to cause toxicity. Increased levels of these laboratory values should be reported to the physician immediately. A spinal fluid analysis is done to examine cerebral spinal fluid, but there is no indication of central nervous system involvement in this case. Arterial blood gases are used to determine actual blood gas levels and assess acid-base balance. Serum osmolality is used to monitor fluid and electrolyte balance.

CN: Pharmacological and parenteral therapies; CL: Analyze

114. 4. Maintaining asepsis of indwelling urinary catheters is essential to prevent infection. Preventing septic shock is a major focus of nursing care because the mortality rate for septic shock is as high as 90% in some populations. Very young and elderly clients (those younger than age 2 or older than age 65) are at increased risk for septic shock. Administering IV fluid replacement therapy, obtaining vital signs every 4 hours on all clients, and monitoring red blood cell counts for elevation do not pertain to septic shock prevention.

CN: Safety and infection control; CL: Synthesize

115. 2. ARDS is a complication associated with septic shock. ARDS causes respiratory failure and may lead to death, even after the client has recovered from shock. Anaphylaxis is a type of distributive or vasogenic shock. COPD is a

functional category of pulmonary disease that consists of persistent obstruction of bronchial airflow and involves chronic bronchitis and chronic emphysema. Mitral valve prolapse is a condition in which the mitral valve is pushed back too far during ventricular contraction.

CN: Physiological adaptation; CL: Analyze

Managing Care Quality and Safety

116. 3. When two clients are to receive blood at the same time, the nurse should call for and hang the clients' transfusions separately to avoid error. The nurse should call for and hang the first client's blood first because this client has experienced a change in blood pressure over a short period of time. The nurse should next call and hang the second client's blood transfusion as there is no indication that this client is unstable at this time. The nurse should not call for both units of transfusions at the same time due to the increased risk of misidentification. The nurse should not verify compatibility of both units at the same time due to the increased risk of misidentification. It is not necessary to involve two nurses because the second client can wait until the nurse has time to hang the blood.

CN: Management of care; CL: Synthesize

117. 1, 2, 3, 4. If a blood transfusion is terminated, the nurse must send a freshly collected blood sample to the blood bank and a urine sample to the laboratory; the nurse must send the blood component unit with the attached administration set and completed Transfusion Reaction Form to the blood bank. It is not necessary to inform Infection Control, but the Risk Management department should be notified, since a transfusion reaction may be a significant liability issue.

CN: Reduction of risk potential; CL: Synthesize

118. 3. The most current pharmacology information is found on electronic sources that are frequently updated and can be transmitted to a handheld device or by logging into the internet or hospital's intranet, if available. The PDR and pharmacology textbooks are outdated once published and, therefore, may not have current information. The manufacturer's website has the potential for bias.

CN: Safety and infection control; CL: Apply

119. 1, 2, 3. Abbreviations can be misinterpreted and all health care professionals should avoid the use of easily misunderstood abbreviations. The purpose of avoiding abbreviations is not to make it easier for clients to understand the medication prescriptions or to make data entry easier.

 CN: Safety and infection control; CL: Synthesize

TEST 4: The Client with Respiratory Health Problems

The Client with an Upper Respiratory Tract Infection

1. A nurse is completing the health history for a client who has been taking echinacea for a head cold. The client asks, “Why isn't this helping me feel better?” Which of the following responses by the nurse would be the **most** accurate?

☐ **1.** “There is limited information as to the effectiveness of herbal products.”
☐ **2.** “Antibiotics are the agents needed to treat a head cold.”
☐ **3.** “The head cold should be gone within the month.”
☐ **4.** “Combining herbal products with prescription antiviral medications is sure to help you.”

2. A nurse is teaching a client about taking antihistamines. Which of the following instructions should the nurse include in the teaching plan? Select all that apply.

☐ **1.** Operating machinery and driving may be dangerous while taking antihistamines.
☐ **2.** Continue taking antihistamines even if nasal infection develops.
☐ **3.** The effect of antihistamines is not felt until a day later.
☐ **4.** Do not use alcohol with antihistamines.
☐ **5.** Increase fluid intake to 2,000 mL/day.

3. A client with allergic rhinitis is instructed on the correct technique for using an intranasal inhaler. Which of the following statements would demonstrate to the nurse that the client understands the instructions?

☐ **1.** “I should limit the use of the inhaler to early morning and bedtime use.”
☐ **2.** “It is important to not shake the canister because that can damage the spray device.”
☐ **3.** “I should hold one nostril closed while I insert the spray into the other nostril.”
☐ **4.** “The inhaler tip is inserted into the nostril and pointed toward the inside nostril wall.”

4. Which of the following would be an expected outcome for a client recovering from an upper respiratory tract infection? The client will:

☐ **1.** Maintain a fluid intake of 800 mL every 24 hours.
☐ **2.** Experience chills only once a day.

☐ **3.** Cough productively without chest discomfort.
☐ **4.** Experience less nasal obstruction and discharge.

5. The nurse teaches the client how to instill nose drops. Which of the following techniques is correct?
☐ **1.** The client uses sterile technique when handling the dropper.
☐ **2.** The client blows the nose gently before instilling drops.
☐ **3.** The client uses a new dropper for each instillation.
☐ **4.** The client sits in a semi-Fowler's position with the head tilted forward after administration of the drops.

6. The nurse should include which of the following instructions in the teaching plan for a client with chronic sinusitis?
☐ **1.** Avoid the use of caffeinated beverages.
☐ **2.** Perform postural drainage every day.
☐ **3.** Take hot showers twice daily.
☐ **4.** Report a temperature of 102°F (38.9°C) or higher.

7. A client with allergic rhinitis asks the nurse what to do to decrease the rhinorrhea. Which of the following instructions would be appropriate for the nurse to give the client?
☐ **1.** “Use your nasal decongestant spray regularly to help clear your nasal passages.”
☐ **2.** “Ask the doctor for antibiotics. Antibiotics will help decrease the secretion.”
☐ **3.** “It is important to increase your activity. A daily brisk walk will help promote drainage.”
☐ **4.** “Keep a diary of when your symptoms occur. This can help you identify what precipitates your attacks.”

Guaifenesin 300 mg four times a day has been prescribed as an expectorant. The dosage strength of the liquid is 200 mg/5 mL. How many milliliters should the nurse administer for each dose?

_____ mL.

9. Pseudoephedrine (Sudafed) has been prescribed as a nasal decongestant. Which of the following is a possible adverse effect of this drug?
☐ **1.** Constipation.
☐ **2.** Bradycardia.
☐ **3.** Diplopia.
☐ **4.** Restlessness.

The Client Undergoing Nasal Surgery

10. A health care provider has just inserted nasal packing for a client with epistaxis. The client is taking ramipril (Altace) for hypertension. What should the nurse instruct the client to do?

☐ **1.** Use 81 mg of aspirin daily for relief of discomfort.
☐ **2.** Omit the next dose of ramipril (Altace).
☐ **3.** Remove the packing if there is difficulty swallowing.
☐ **4.** Avoid rigorous aerobic exercise.

11. A client has had surgery for a deviated nasal septum. Which of the following would indicate that bleeding was occurring even if the nasal drip pad remained dry and intact?

☐ **1.** Nausea.
☐ **2.** Repeated swallowing.
☐ **3.** Increased respiratory rate.
☐ **4.** Increased pain.

12. A client who has undergone outpatient nasal surgery is ready for discharge and has nasal packing in place. Which of the following discharge instructions would be appropriate for the client?

☐ **1.** Avoid activities that elicit the Valsalva maneuver.
☐ **2.** Take aspirin to control nasal discomfort.
☐ **3.** Avoid brushing the teeth until the nasal packing is removed.
☐ **4.** Apply heat to the nasal area to control swelling.

13. Which of the following statements should indicate to the nurse that a client has understood the discharge instructions provided after nasal surgery?

☐ **1.** “I should not shower until my packing is removed.”
☐ **2.** “I will take stool softeners and modify my diet to prevent constipation.”
☐ **3.** “Coughing every 2 hours is important to prevent respiratory complications.”
☐ **4.** “It is important to blow my nose each day to remove the dried secretions.”

14. The nurse is planning to give preoperative instructions to a client who will be undergoing rhinoplasty. Which of the following instructions should be included?

☐ **1.** After surgery, nasal packing will be in place for 7 to 10 days.
☐ **2.** Normal saline nose drops will need to be administered preoperatively.

☐ **3.** The results of the surgery will be immediately obvious postoperatively.
☐ **4.** Aspirin-containing medications should not be taken for 2 weeks before surgery.

15. Which of the following assessments is a **priority** immediately after nasal surgery?
☐ **1.** Assessing the client's pain.
☐ **2.** Inspecting for periorbital ecchymosis.
☐ **3.** Assessing respiratory status.
☐ **4.** Measuring intake and output.

16. After nasal surgery, the client expresses concern about how to decrease facial pain and swelling while recovering at home. Which of the following discharge instructions would be **most** effective for decreasing pain and edema?
☐ **1.** Take analgesics every 4 hours around the clock.
☐ **2.** Use corticosteroid nasal spray as needed to control symptoms.
☐ **3.** Use a bedside humidifier while sleeping.
☐ **4.** Apply cold compresses to the area.

17. A client is being discharged with nasal packing in place. The nurse should instruct the client to:
☐ **1.** Perform frequent mouth care.
☐ **2.** Use normal saline nose drops daily.
☐ **3.** Sneeze and cough with mouth closed.
☐ **4.** Gargle every 4 hours with salt water.

18. Which of the following activities should the nurse teach the client to implement after the removal of nasal packing on the 2nd postoperative day?
☐ **1.** Avoid cleaning the nares until swelling has subsided.
☐ **2.** Apply water-soluble jelly to lubricate the nares.
☐ **3.** Keep a nasal drip pad in place to absorb secretions.
☐ **4.** Use a bulb syringe to gently irrigate nares.

19. The nurse is teaching a client how to manage a nosebleed. Which of the following instructions would be appropriate to give the client?
☐ **1.** “Tilt your head backward and pinch your nose.”
☐ **2.** “Lie down flat and place an ice compress over the bridge of the nose.”
☐ **3.** “Blow your nose gently with your neck flexed.”
☐ **4.** “Sit down, lean forward, and pinch the soft portion of your nose.”

20. An elderly client had posterior packing inserted to control a severe nosebleed. After insertion of the packing, the client should be closely monitored for which of the following complications?

☐ **1.** Vertigo.
☐ **2.** Bell's palsy.
☐ **3.** Hypoventilation.
☐ **4.** Loss of gag reflex.

The Client with Cancer of the Larynx

21. Postoperative nursing management of the client following a radical neck dissection for laryngeal cancer requires:

☐ **1.** Complete bed rest minimizing head movement.
☐ **2.** Vital signs once a shift.
☐ **3.** Clear liquid diet started at 48 hours.
☐ **4.** Frequent suctioning of the laryngectomy tube.

22. A client who has had a total laryngectomy appears withdrawn and depressed. The client keeps the curtain drawn, refuses visitors, and indicates a desire to be left alone. Which nursing intervention would **most** likely be therapeutic for the client?

☐ **1.** Discussing the behavior with the spouse to determine the cause.
☐ **2.** Exploring future plans.
☐ **3.** Respecting the need for privacy.
☐ **4.** Encouraging expression of feelings nonverbally and in writing.

23. The nurse is suctioning a client who had a laryngectomy. What is the **maximum** amount of time the nurse should suction the client?

☐ **1.** 10 seconds.
☐ **2.** 15 seconds.
☐ **3.** 25 seconds.
☐ **4.** 30 seconds.

24. When suctioning a tracheostomy tube 3 days following insertion, the nurse should follow which of the following procedures?

☐ **1.** Use a sterile catheter each time the client is suctioned.
☐ **2.** Clean the catheter in sterile water after each use and reuse for no longer than 8 hours.
☐ **3.** Protect the catheter in sterile packaging between suctioning episodes.
☐ **4.** Use a clean catheter with each suctioning, and disinfect it in hydrogen peroxide between uses.

25. The client with a laryngectomy does not want his family to see him. He indicates that he thinks the opening in his throat is disgusting. The nurse should:

☐ **1.** Initiate teaching about the care of a stoma.
☐ **2.** Explain that the stoma will not always look as it does now.
☐ **3.** Inform the client of the benefits of family support at this time.

☐ **4.** Explore why the client believes the stoma is “disgusting.”

26. The nurse is making rounds and observes the client who had a tracheostomy tube inserted 2 days ago (see figure below). The nursing policy manual recommends use of the gauze pad. The nurse should:

☐ **1.** Make sure the gauze pad is dry and the client is in a comfortable position.
☐ **2.** Ask the nursing assistant to tie the tracheostomy tube ties in the back of the client's neck.
☐ **3.** Reposition the gauze pad around the stoma with the open end downward.
☐ **4.** Ask a registered nurse to change the ties and position another gauze pad around the stoma.

27. What areas of education should the nurse provide employees in a factory making products that cause respiratory irritation to reduce the risk of laryngeal cancer? Select all that apply.
☐ **1.** Stopping smoking.
☐ **2.** Using a HEPA filter in the home.
☐ **3.** Limiting alcohol intake.
☐ **4.** Brushing teeth after every meal.
☐ **5.** Avoiding raising the voice to be heard over the noise in the factory.

28. A client has had hoarseness for more than 2 weeks. The nurse should:
☐ **1.** Refer the client to a health care provider for a prescription for an antibiotic.
☐ **2.** Instruct the client to gargle with salt water at home.
☐ **3.** Assess the client for dysphagia.
☐ **4.** Instruct the client to take a throat analgesic.

29. A client has just returned from the postanesthesia care unit after undergoing a laryngectomy. Which of the following interventions should the nurse include in the plan of care?

☐ **1.** Maintain the head of the bed at 30 to 40 degrees.
☐ **2.** Teach the client how to use esophageal speech.
☐ **3.** Initiate small feedings of soft foods.
☐ **4.** Irrigate drainage tubes as needed.

30. Which of the following is an expected outcome for a client recovering from a total laryngectomy? The client will:

☐ **1.** Regain the ability to taste and smell food.
☐ **2.** Demonstrate appropriate care of the gastrostomy tube.
☐ **3.** Communicate feelings about body image changes.
☐ **4.** Demonstrate sterile suctioning technique for stoma care.

31. Which of the following home care instructions would be appropriate for a client with a laryngectomy?

☐ **1.** Perform mouth care every morning and evening.
☐ **2.** Provide adequate humidity in the home.
☐ **3.** Maintain a soft, bland diet.
☐ **4.** Limit physical activity to shoulder and neck exercises.

32. The nurse's assignment consists of four clients. Prioritize in order from **highest** to **lowest** priority in what order the nurse would assess these clients after receiving report.

1. An 85-year-old client with bacterial pneumonia, temperature of 102.2°F (42°C), and shortness of breath.

2. A 60-year-old client with chest tubes who is 2 days postoperative following a thoracotomy for lung cancer and is requesting something for pain.

3. A 35-year-old client with suspected tuberculosis who has a cough.

4. A 56-year-old client with emphysema who has a scheduled dose of a bronchodilator due to be administered, with no report of acute respiratory distress.

The Client with Pneumonia

33. An elderly client admitted with pneumonia and dementia has attempted several times to pull out the IV and Foley catheter. The nurse obtains a prescription for bilateral soft wrist restraints. Which nursing action is **most** appropriate?

☐ **1.** Perform circulation checks to bilateral upper extremities each shift.
☐ **2.** Attach the ties of the restraints to the bedframe.
☐ **3.** Reevaluate the need for restraints and document weekly.
☐ **4.** Ensure the restraint order has been signed by the physician within 72 hours.

34. A 79-year-old client is admitted to the hospital with a diagnosis of bacterial pneumonia. While obtaining the client's health history, the nurse learns that the client has osteoarthritis, follows a vegetarian diet, and is very concerned with cleanliness. Which of the following would **most** likely be a predisposing factor for the diagnosis of pneumonia?

☐ **1.** Age.
☐ **2.** Osteoarthritis.
☐ **3.** Vegetarian diet.
☐ **4.** Daily bathing.

35. Which of the following are significant data to gather from a client who has been diagnosed with pneumonia? Select all that apply.

☐ **1.** Quality of breath sounds.
☐ **2.** Presence of bowel sounds.
☐ **3.** Occurrence of chest pain.
☐ **4.** Amount of peripheral edema.
☐ **5.** Color of nail beds.

36. A client with bacterial pneumonia is to be started on IV antibiotics. Which of the following diagnostic tests must be completed before antibiotic therapy begins?

☐ **1.** Urinalysis.
☐ **2.** Sputum culture.
☐ **3.** Chest radiograph.
☐ **4.** Red blood cell count.

37. When caring for the client who is receiving an aminoglycoside

antibiotic, the nurse should monitor which of the following laboratory values?

☐ **1.** Serum sodium.
☐ **2.** Serum potassium.
☐ **3.** Serum creatinine.
☐ **4.** Serum calcium.

38. Penicillin has been prescribed for a client admitted to the hospital for treatment of pneumonia. Prior to administering the first dose of penicillin, the nurse should ask the client:

☐ **1.** “Do you have a history of seizures?”
☐ **2.** “Do you have any cardiac history?”
☐ **3.** “Have you had any recent infections?”
☐ **4.** “Have you had a previous allergy to penicillin?”

39. A client with pneumonia has a temperature of 102.6°F (39.2°C), is diaphoretic, and has a productive cough. The nurse should include which of the following measures in the plan of care?

☐ **1.** Position changes every 4 hours.
☐ **2.** Nasotracheal suctioning to clear secretions.
☐ **3.** Frequent linen changes.
☐ **4.** Frequent offering of a bedpan.

40. Bed rest is prescribed for a client with pneumonia during the acute phase of the illness. The nurse should determine the effectiveness of bed rest by assessing the client's:

☐ **1.** Decreased cellular demand for oxygen.
☐ **2.** Reduced episodes of coughing.
☐ **3.** Diminished pain when breathing deeply.
☐ **4.** Ability to expectorate secretions more easily.

41. The cyanosis that accompanies bacterial pneumonia is **primarily** caused by which of the following?

☐ **1.** Decreased cardiac output.
☐ **2.** Pleural effusion.
☐ **3.** Inadequate peripheral circulation.
☐ **4.** Decreased oxygenation of the blood.

42. A client with pneumonia is experiencing pleuritic chest pain. The nurse should assess the client for:

☐ **1.** A mild but constant aching in the chest.
☐ **2.** Severe midsternal pain.
☐ **3.** Moderate pain that worsens on inspiration.
☐ **4.** Muscle spasm pain that accompanies coughing.

43. Which of the following measures would **most** likely be successful in reducing pleuritic chest pain in a client with pneumonia?

☐ **1.** Encourage the client to breathe shallowly.
☐ **2.** Have the client practice abdominal breathing.
☐ **3.** Offer the client incentive spirometry.
☐ **4.** Teach the client to splint the rib cage when coughing.

44. The nurse administers two 325 mg aspirin every 4 hours to a client with pneumonia. The nurse should evaluate the outcome of administering the drug by assessing which of the following? Select all that apply.

☐ **1.** Decreased pain when breathing.
☐ **2.** Prolonged clotting time.
☐ **3.** Decreased temperature.
☐ **4.** Decreased respiratory rate.
☐ **5.** Increased ability to expectorate secretions.

45. Which of the following mental status changes may occur when a client with pneumonia is first experiencing hypoxia?

☐ **1.** Coma.
☐ **2.** Apathy.
☐ **3.** Irritability.
☐ **4.** Depression.

46. The client with pneumonia develops mild constipation, and the nurse administers docusate sodium (Colace) as prescribed. This drug works by:

☐ **1.** Softening the stool.
☐ **2.** Lubricating the stool.
☐ **3.** Increasing stool bulk.
☐ **4.** Stimulating peristalsis.

47. The unlicensed assistive personnel (UAP) reports to the registered nurse that a client admitted with pneumonia is very diaphoretic. The nurse reviews the following vital signs in the chart obtained by the UAP. The nurse should do which of the following? Select all that apply.

Vital Signs

Time	8 AM	10 AM	12 PM
Temperature	38.3°C		38.8°C
Pulse	90	104	118
Respirations	16	18	24
Blood Pressure	112/74	110/68	116/78
Spo_2	93%	92%	92%

☐ **1.** Assure the client is maintaining complete bed rest.
☐ **2.** Check the urine output.
☐ **3.** Ask the client to drink more fluids.
☐ **4.** Notify the physician.
☐ **5.** Administer acetaminophen (Tylenol) as prescribed.

48. Which of the following is an expected outcome for an elderly client following treatment for bacterial pneumonia?
☐ **1.** A respiratory rate of 25 to 30 breaths/min.
☐ **2.** The ability to perform activities of daily living without dyspnea.
☐ **3.** A maximum loss of 5 to 10 lb (2.27 to 4.53 kg) of body weight.
☐ **4.** Chest pain that is minimized by splinting the rib cage.

The Client with Tuberculosis

49. A client newly diagnosed with tuberculosis (TB) is being admitted with the prescription for “isolation precautions for tuberculosis.” The nurse should assign the client to which type of room?

☐ **1.** A room at the end of the hall for privacy.
☐ **2.** A private room to implement airborne precautions.
☐ **3.** A room near the nurses' station to ensure confidentiality.
☐ **4.** A room with windows to allow sunlight.

50. Which of the following symptoms is common in clients with active tuberculosis?

☐ **1.** Weight loss.
☐ **2.** Increased appetite.
☐ **3.** Dyspnea on exertion.
☐ **4.** Mental status changes.

The nurse is reviewing the history and physical and physician prescriptions on the chart of a newly admitted client.

History and physical tab

Subjective:	19-year-old reports a constant cough for the past "few weeks" with "dark" sputum for the past few days. Has night sweats, 10-lb (4.5-kg) weight loss in the past month, and "always" being tired. He took one Tylenol about an hour prior to arrival.
Objective:	
BP	120/64
HR	84/reg
Resp	26/unlabored/slight wheezing in right lower lobe posteriorly
O^2 Sat	92%
Temp	99.9°F (37.7°C) oral
Skin	Warm, slightly diaphoretic
Nonproductive cough at this time	
Assessment:	Possible respiratory infection
Physician prescriptions tab	
	Chest x-ray
	Sputum specimen
	Oxygen at 2 L per nasal cannula

The nurse should **first**:

☐ **1.** Initiate airborne precautions.
☐ **2.** Apply oxygen at 2 L per nasal cannula.
☐ **3.** Collect a sputum sample.
☐ **4.** Reassess vital signs.

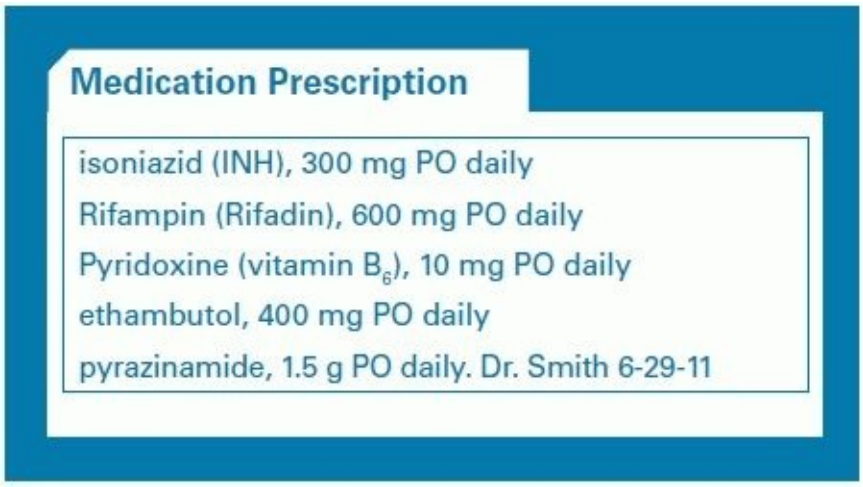
52. A client is receiving streptomycin in the treatment regimen of tuberculosis. The nurse should assess for:

☐ **1.** Decreased serum creatinine.

☐ **2.** Difficulty swallowing.
☐ **3.** Hearing loss.
☐ **4.** IV infiltration.

53. A client is receiving streptomycin for the treatment of tuberculosis. The nurse should assess the client for eighth cranial nerve damage by observing the client for:
☐ **1.** Vertigo.
☐ **2.** Facial paralysis.
☐ **3.** Impaired vision.
☐ **4.** Difficulty swallowing.

54. The nurse is reconciling the prescriptions for a client diagnosed recently with pulmonary tuberculosis who is being admitted to the hospital for a total hip replacement (see medication prescription sheet). The client asks if it is necessary to take all of these medications while in the hospital. The nurse should:



☐ **1.** Request that the health care provider review the prescriptions for a duplication between isoniazid and ethambutol.
☐ **2.** Inform the client that all drugs will be discontinued until the client can eat solid foods.
☐ **3.** Ask the pharmacist to check for drug interactions between the rifampin and isoniazid.
☐ **4.** Tell the client that it is important to continue to take the medications because the combination of drugs prevents bacterial resistance.

55. The nurse should teach clients that the most common route of transmitting tubercle bacilli from person to person is through contaminated:
☐ **1.** Dust particles.
☐ **2.** Droplet nuclei.

☐ **3.** Water.
☐ **4.** Eating utensils.

56. What is the rationale that supports multidrug treatment for clients with tuberculosis?
☐ **1.** Multiple drugs potentiate the drugs' actions.
☐ **2.** Multiple drugs reduce undesirable drug adverse effects.
☐ **3.** Multiple drugs allow reduced drug dosages to be given.
☐ **4.** Multiple drugs reduce development of resistant strains of the bacteria.

57. The client with tuberculosis is to be discharged home with community health nursing follow-up. Of the following nursing interventions, which should have the **highest** priority?
☐ **1.** Offering the client emotional support.
☐ **2.** Teaching the client about the disease and its treatment.
☐ **3.** Coordinating various agency services.
☐ **4.** Assessing the client's environment for sanitation.

58. The nurse is reading the results of a tuberculin skin test (see figure). The nurse should interpret the results as:
☐ **1.** Negative.
☐ **2.** Needing to be repeated.
☐ **3.** Positive.
☐ **4.** False.

59. Which of the following techniques for administering the Mantoux test is correct?
☐ **1.** Hold the needle and syringe almost parallel to the client's skin.
☐ **2.** Pinch the skin when inserting the needle.

☐ **3.** Aspirate before injecting the medication.
☐ **4.** Massage the site after injecting the medication.

60. A client had a Mantoux test result of an 8-mm induration. The test is considered positive when the client:
☐ **1.** Lives in a long-term care facility.
☐ **2.** Has no known risk factors.
☐ **3.** Is immunocompromised.
☐ **4.** Works as a health care provider in a hospital.

61. Which of the following family members exposed to tuberculosis would be at **highest** risk for contracting the disease?
☐ **1.** 45-year-old mother.
☐ **2.** 17-year-old daughter.
☐ **3.** 8-year-old son.
☐ **4.** 76-year-old grandmother.

62. The nurse is teaching a client who has been diagnosed with tuberculosis how to avoid spreading the disease to family members. Which statement(s) indicate(s) that the client has understood the nurse's instructions? Select all that apply.
☐ **1.** “I will need to dispose of my old clothing when I return home.”
☐ **2.** “I should always cover my mouth and nose when sneezing.”
☐ **3.** “It is important that I isolate myself from family when possible.”
☐ **4.** “I should use paper tissues to cough in and dispose of them promptly.”
☐ **5.** “I can use regular plates and utensils whenever I eat.”

63. A client has a positive reaction to the Mantoux test. The nurse interprets this reaction to mean that the client has:
☐ **1.** Active tuberculosis.
☐ **2.** Had contact with *Mycobacterium tuberculosis*.
☐ **3.** Developed a resistance to tubercle bacilli.
☐ **4.** Developed passive immunity to tuberculosis.

64. A client with tuberculosis is taking Isoniazid (INH). To help prevent development of peripheral neuropathies, the nurse should instruct the client to:
☐ **1.** Adhere to a low-cholesterol diet.
☐ **2.** Supplement the diet with pyridoxine (vitamin B_6).
☐ **3.** Get extra rest.
☐ **4.** Avoid excessive sun exposure.

65. The nurse should caution sexually active female clients taking isoniazid (INH) that the drug has which of the following effects?

☐ **1.** Increases the risk of vaginal infection.
☐ **2.** Has mutagenic effects on ova.
☐ **3.** Decreases the effectiveness of hormonal contraceptives.
☐ **4.** Inhibits ovulation.

66. Clients who have had active tuberculosis are at risk for recurrence. Which of the following conditions increases that risk?
☐ **1.** Cool and damp weather.
☐ **2.** Active exercise and exertion.
☐ **3.** Physical and emotional stress.
☐ **4.** Rest and inactivity.

67. In which areas of the United States and Canada is the incidence of tuberculosis highest?
☐ **1.** Rural farming areas.
☐ **2.** Inner-city areas.
☐ **3.** Areas where clean water standards are low.
☐ **4.** Suburban areas with significant industrial pollution.

68. The nurse should include which of the following instructions when developing a teaching plan for a client who is receiving isoniazid and rifampin (Rifamate) for treatment of tuberculosis?
☐ **1.** Take the medication with antacids.
☐ **2.** Double the dosage if a drug dose is missed.
☐ **3.** Increase intake of dairy products.
☐ **4.** Limit alcohol intake.

69. A client who has been diagnosed with tuberculosis has been placed on drug therapy. The medication regimen includes rifampin (Rifadin). Which of the following instructions should the nurse include in the client's teaching plan related to the potential adverse effects of rifampin? Select all that apply.
☐ **1.** Having eye examinations every 6 months.
☐ **2.** Maintaining follow-up monitoring of liver enzymes.
☐ **3.** Decreasing protein intake in the diet.
☐ **4.** Avoiding alcohol intake.
☐ **5.** The urine may have an orange color.

70. The nurse is providing follow-up care to a client with tuberculosis who does not regularly take the prescribed medication. Which nursing action would be **most** appropriate for this client?
☐ **1.** Ask the client's spouse to supervise the daily administration of the medications.
☐ **2.** Visit the client weekly to verify compliance with taking the medication.

☐ **3.** Notify the physician of the client's noncompliance and request a different prescription.
☐ **4.** Remind the client that tuberculosis can be fatal if it is not treated promptly.

The Client with Chronic Obstructive Pulmonary Disease

71. The nurse is instructing a client with chronic obstructive pulmonary disease (COPD) how to do pursed-lip breathing. In which order should the nurse explain the steps to the client?

1. "Breathe in normally through your nose for two counts (while counting to yourself, one, two)."
2. "Relax your neck and shoulder muscles."
3. "Pucker your lips as if you were going to whistle."
4. "Breathe out slowly through pursed lips for four counts (while counting to yourself, one, two, three, four)."

72. The nurse reviews an arterial blood gas report for a client with chronic obstructive pulmonary disease (COPD). The results are: pH 7.35; PCO_2 62 (8.25 kPa); PO_2 70 (9.31 kPa) (34 mmol/L); HCO_3 34. The nurse should **first:**

☐ **1.** Apply a 100% nonrebreather mask.
☐ **2.** Assess the vital signs.
☐ **3.** Reposition the client.
☐ **4.** Prepare for intubation.

73. When developing a discharge plan to manage the care of a client with chronic obstructive pulmonary disease (COPD), the nurse should advise the

client to expect to:

☐ **1.** Develop respiratory infections easily.
☐ **2.** Maintain current status.
☐ **3.** Require less supplemental oxygen.
☐ **4.** Show permanent improvement.

74. The client with chronic obstructive pulmonary disease (COPD) is taking theophylline. The nurse should instruct the client to report which of the following signs of theophylline toxicity? Select all that apply.

☐ **1.** Nausea.
☐ **2.** Vomiting.
☐ **3.** Seizures.
☐ **4.** Insomnia.
☐ **5.** Vision changes.

75. Which of the following indicates that the client with chronic obstructive pulmonary disease (COPD) who has been discharged to home understands the care plan?

☐ **1.** The client promises to do pursed-lip breathing at home.
☐ **2.** The client states actions to reduce pain.
☐ **3.** The client will use oxygen via a nasal cannula at 5 L/min.
☐ **4.** The client agrees to call the physician if dyspnea on exertion increases.

76. Which of the following physical assessment findings are normal for a client with advanced chronic obstructive pulmonary disease (COPD)?

☐ **1.** Increased anteroposterior chest diameter.
☐ **2.** Underdeveloped neck muscles.
☐ **3.** Collapsed neck veins.
☐ **4.** Increased chest excursions with respiration.

77. When instructing clients on how to decrease the risk of chronic obstructive pulmonary disease (COPD), the nurse should emphasize which of the following?

☐ **1.** Participate regularly in aerobic exercises.
☐ **2.** Maintain a high-protein diet.
☐ **3.** Avoid exposure to people with known respiratory infections.
☐ **4.** Abstain from cigarette smoking.

78. Which of the following is an expected outcome of pursed-lip breathing for clients with emphysema?

☐ **1.** To promote oxygen intake.
☐ **2.** To strengthen the diaphragm.
☐ **3.** To strengthen the intercostal muscles.

☐ **4.** To promote carbon dioxide elimination.

79. Which of the following is a priority goal for the client with chronic obstructive pulmonary disease (COPD)?

☐ **1.** Maintaining functional ability.
☐ **2.** Minimizing chest pain.
☐ **3.** Increasing carbon dioxide levels in the blood.
☐ **4.** Treating infectious agents.

80. A client's arterial blood gas values are as follows: pH, 7.31; PaO_2, 80 mm Hg; $PaCO_2$, 65 mm Hg; HCO_3^-, 36 mEq/L. The nurse should assess the client for:

☐ **1.** Cyanosis.
☐ **2.** Flushed skin.
☐ **3.** Irritability.
☐ **4.** Anxiety.

81. When teaching a client with chronic obstructive pulmonary disease to conserve energy, the nurse should teach the client to lift objects:

☐ **1.** While inhaling through an open mouth.
☐ **2.** While exhaling through pursed lips.
☐ **3.** After exhaling but before inhaling.
☐ **4.** While taking a deep breath and holding it.

82. The nurse teaches a client with chronic obstructive pulmonary disease (COPD) to assess for signs and symptoms of right-sided heart failure. Which of the following signs and symptoms should be included in the teaching plan?

☐ **1.** Clubbing of nail beds.
☐ **2.** Hypertension.
☐ **3.** Peripheral edema.
☐ **4.** Increased appetite.

83. The nurse assesses the respiratory status of a client who is experiencing an exacerbation of chronic obstructive pulmonary disease (COPD) secondary to an upper respiratory tract infection. Which of the following findings would be expected?

☐ **1.** Normal breath sounds.
☐ **2.** Prolonged inspiration.
☐ **3.** Normal chest movement.
☐ **4.** Coarse crackles and rhonchi.

84. A client with chronic obstructive pulmonary disease (COPD) is experiencing dyspnea and has a low PaO_2 level. The nurse plans to administer

oxygen as prescribed. Which of the following statements is true concerning oxygen administration to a client with COPD?

☐ **1.** High oxygen concentrations will cause coughing and dyspnea.
☐ **2.** High oxygen concentrations may inhibit the hypoxic stimulus to breathe.
☐ **3.** Increased oxygen use will cause the client to become dependent on the oxygen.
☐ **4.** Administration of oxygen is contraindicated in clients who are using bronchodilators.

85. Which of the following diets would be **most** appropriate for a client with chronic obstructive pulmonary disease (COPD)?

☐ **1.** Low-fat, low-cholesterol diet.
☐ **2.** Bland, soft diet.
☐ **3.** Low-sodium diet.
☐ **4.** High-calorie, high-protein diet.

86. The nurse administers theophylline to a client. When evaluating the effectiveness of this medication, the nurse should assess the client for which of the following?

☐ **1.** Suppression of the client's respiratory infection.
☐ **2.** Decrease in bronchial secretions.
☐ **3.** Less difficulty breathing.
☐ **4.** Thinning of tenacious, purulent sputum.

87. The nurse is planning to teach a client with chronic obstructive pulmonary disease how to cough effectively. Which of the following instructions should be included?

☐ **1.** Take a deep abdominal breath, bend forward, and cough three or four times on exhalation.
☐ **2.** Lie flat on the back, splint the thorax, take two deep breaths, and cough.
☐ **3.** Take several rapid, shallow breaths and then cough forcefully.
☐ **4.** Assume a side-lying position, extend the arm over the head, and alternate deep breathing with coughing.

The Client with Asthma

88. A client uses a metered-dose inhaler (MDI) to aid in management of asthma. Which action indicates to the nurse that the client needs further instruction regarding its use? Select all that apply.

☐ **1.** Activation of the MDI is not coordinated with inspiration.
☐ **2.** The client inspires rapidly when using the MDI.
☐ **3.** The client holds his breath for 3 seconds after inhaling with the MDI.
☐ **4.** The client shakes the MDI after use.
☐ **5.** The client performs puffs in rapid succession.

89. A 34-year-old female with a history of asthma is admitted to the emergency department. The nurse notes that the client is dyspneic, with a respiratory rate of 35 breaths/min, nasal flaring, and use of accessory muscles. Auscultation of the lung fields reveals greatly diminished breath sounds. Based on these findings, which action should the nurse take to initiate care of the client?

☐ **1.** Initiate oxygen therapy as prescribed and reassess the client in 10 minutes.
☐ **2.** Draw blood for an arterial blood gas.
☐ **3.** Encourage the client to relax and breathe slowly through the mouth.
☐ **4.** Administer bronchodilators as prescribed.

A client experiencing a severe asthma attack has the following arterial blood gas results:

pH 7.33; P_{CO_2} 48 (6.4 kPa); P_{O_2} 58 (7.7 kPa); HCO_3 26 (26 mmol/L).

Which of the following prescriptions should the nurse perform **first**?

☐ **1.** Albuterol nebulizer.
☐ **2.** Chest x-ray.
☐ **3.** Ipratropium inhaler.
☐ **4.** Sputum culture.

91. A client with acute asthma is prescribed short-term corticosteroid therapy. Which is the expected outcome for the use of steroids in clients with asthma?

☐ **1.** Promote bronchodilation.
☐ **2.** Act as an expectorant.

☐ **3.** Have an anti-inflammatory effect.
☐ **4.** Prevent development of respiratory infections.

92. The nurse is teaching the client how to use a metered-dose inhaler (MDI) to administer a corticosteroid. Which of the following indicates that the client is using the MDI correctly? Select all that apply.
☐ **1.** The inhaler is held upright.
☐ **2.** The head is tilted down while inhaling the medicine.
☐ **3.** The client waits 5 minutes between puffs.
☐ **4.** The client rinses the mouth with water following administration.
☐ **5.** The client lies supine for 15 minutes following administration.

93. A client is prescribed metaproterenol via a metered-dose inhaler, two puffs every 4 hours. The nurse instructs the client to report adverse effects. Which of the following are potential adverse effects of metaproterenol?
☐ **1.** Irregular heartbeat.
☐ **2.** Constipation.
☐ **3.** Pedal edema.
☐ **4.** Decreased pulse rate.

94. A client who has been taking flunisolide nasal spray, two inhalations a day, for treatment of asthma has painful, white patches in the mouth. Which response by the nurse would be **most** appropriate?
☐ **1.** "This is an anticipated adverse effect of your medication. It should go away in a couple of weeks."
☐ **2.** "You are using your inhaler too much and it has irritated your mouth."
☐ **3.** "You have developed a fungal infection from your medication. It will need to be treated with an antifungal agent."
☐ **4.** "Be sure to brush your teeth and floss daily. Good oral hygiene will treat this problem."

95. A nurse is teaching a client to use a metereddose inhaler (MDI) to administer bronchodilator medication. Indicate the correct order of the steps the client should take to use the MDI appropriately.

1. Shake the inhaler immediately before use.
2. Hold breath for 5 to 10 seconds and then exhale.
3. Activate the MDI on inhalation.

4. Breathe out through the mouth.

96. Which of the following is an expected outcome for an adult client with well-controlled asthma?

☐ **1.** Chest x-ray demonstrates minimal hyperinflation.
☐ **2.** Temperature remains lower than 100°F (37.8°C).
☐ **3.** Arterial blood gas analysis demonstrates a decrease in PaO_2.
☐ **4.** Breath sounds are clear.

97. Which of the following health promotion activities should the nurse include in the discharge teaching plan for a client with asthma?

☐ **1.** Incorporate physical exercise as tolerated into the daily routine.
☐ **2.** Monitor peak flow numbers after meals and at bedtime.
☐ **3.** Eliminate stressors in the work and home environment.
☐ **4.** Use sedatives to ensure uninterrupted sleep at night.

98. The nurse should teach the client with asthma that which of the following is one of the **most** common precipitating factors of an acute asthma attack?

☐ **1.** Occupational exposure to toxins.
☐ **2.** Viral respiratory infections.
☐ **3.** Exposure to cigarette smoke.
☐ **4.** Exercising in cold temperatures.

99. Which of the following findings would **most** likely indicate the presence of a respiratory infection in a client with asthma?

☐ **1.** Cough productive of yellow sputum.
☐ **2.** Bilateral expiratory wheezing.
☐ **3.** Chest tightness.
☐ **4.** Respiratory rate of 30 breaths/min.

100. A client diagnosed with asthma has been prescribed fluticasone (Flovent) one puff every 12 hours per inhaler. Place in correct order the statements the nurse would use when teaching the client how to properly use the inhaler with a spacer.

1. “Hold your breath for at least 10 seconds, then breathe in and out slowly.”

2. “Take off the cap and shake the inhaler.”

3. “Rinse your mouth.”

4. “Breathe out all of your air. Hold the mouthpiece of your inhaler and spacer between your teeth with your lips closed around it.”

5. “Press down on the inhaler once and breathe in *slowly*.”

6. “Attach the spacer.”

101. The nurse is caring for a client who has asthma. The nurse should conduct a focused assessment to detect which of the following?

☐ **1.** Increased forced expiratory volume.
☐ **2.** Normal breath sounds.
☐ **3.** Inspiratory and expiratory wheezing.
☐ **4.** Morning headaches.

The Client with Lung Cancer

102. The nurse has assisted the physician at the bedside with insertion of a left subclavian, triple lumen catheter in a client admitted with lung cancer. Suddenly, the client becomes restless and tachypneic. The nurse should:

☐ **1.** Assess breath sounds.
☐ **2.** Remove the catheter.
☐ **3.** Insert a peripheral IV.
☐ **4.** Reposition the client.

103. A recently extubated client has shortness of breath. The nurse reports the client's discomfort to the health care provider and the results of the recently prescribed arterial blood gas analysis. After reviewing the report of the complete blood count (see below), the nurse should also report which of the following to the health care provider?

☐ **1.** PT.
☐ **2.** Hemoglobin and hematocrit.
☐ **3.** WBC.
☐ **4.** Platelets.

Laboratory Values

Complete Blood Count (CBC) with differential				
Test Results	**Current Results**	**Previous Results**	**Units**	**Reference Interval**
White Blood Count (WBC)	3.6	3.4	$\times 10^3/mm^3$	5.0–10.0
Red Blood Count (RBC)	3.20	3.6	$\times 10^6/mm^3$	4.1–5.3
Hemoglobin (Hgb)	9.6	10.5	g/dL	12.0–18.0
Hematocrit (Hct)	30.5	32.6	%	37.0–52.0
Platelets	302	300	$\times 10^3/mm^3$	150–400
Polys (neutrophils)	36	34	%	45–76
Lymphocytes	68	70	%	17–44
Monocytes	7	8	%	3–10
Eosinophils	2	3	%	0–4
Basophils	0.6	0.6	%	0.2
Polys (absolute)	0.34	0.36	$\times 10^3/mm^3$	1.8–7.8
Lymphocytes (absolute)	1.0	1.0	$\times 10^3/mm^3$	0.7–4.5
Monocytes (absolute)	0.1	0.1	$\times 10^3/mm^3$	0.1–1.0
Eosinophils (absolute)	0.1	0.1	$\times 10^3/mm^3$	0.0–0.4
Basophils (absolute)	0.0	0.0	$\times 10^3/mm^3$	0.0–0.2
Hemoglobin A1c				
Test Results	**Current Results**	**Previous Results**	**Units**	**Reference Interval**
HA1c	7.4		%	<7
Prothrombin				
Test Results	**Current Results**	**Previous Results**	**Units**	**Reference Interval**
PT	13	12	s	10–12 s

104. A female client diagnosed with lung cancer is to have a left lower lobectomy. Which of the following **increases** the client's risk of developing postoperative pulmonary complications?

☐ **1.** Height is 5 feet, 7 inches (170.2 cm) and weight is 110 lb (49.9 kg).
☐ **2.** The client tends to keep her real feelings to herself.
☐ **3.** She ambulates and can climb one flight of stairs without dyspnea.
☐ **4.** The client is 58 years of age.

105. The nurse in the perioperative area is preparing a client for surgery and notices that the client looks sad. The client says, “I'm scared of having cancer. It's so horrible and I brought it on myself. I should have quit smoking years ago.” What would be the nurse's **best** response to the client?

☐ **1.** “It's okay to be scared. What is it about cancer that you're afraid of?”
☐ **2.** “It's normal to be scared. I would be, too. We'll help you through it.”
☐ **3.** “Don't be so hard on yourself. You don't know if your smoking caused the cancer.”
☐ **4.** “Do you feel guilty because you smoked?”

106. A client who underwent a left lower lobectomy has been out of surgery for 48 hours. The client is receiving morphine sulfate via a patient-controlled analgesia (PCA) system and reports having pain in the left thorax that worsens when coughing. The nurse should:

☐ **1.** Let the client rest, so that the client is not stimulated to cough.
☐ **2.** Encourage the client to take deep breaths to help control the pain.
☐ **3.** Check that the PCA device is functioning properly, and then reassure the client that the machine is working and will relieve the pain.
☐ **4.** Obtain a more detailed assessment of the client's pain using a pain scale.

107. Which of the following areas is a priority to evaluate when completing discharge planning for a client who has had a lobectomy for treatment of lung cancer?

☐ **1.** The support available to assist the client at home.
☐ **2.** The distance the client lives from the hospital.
☐ **3.** The client's ability to do home blood pressure monitoring.
☐ **4.** The client's knowledge of the causes of lung cancer.

108. Which of the following would be a significant intervention to help prevent lung cancer?

☐ **1.** Encourage cigarette smokers to have yearly chest radiographs.
☐ **2.** Instruct people about techniques for smoking cessation.
☐ **3.** Recommend that people have their houses and apartments checked for asbestos leakage.
☐ **4.** Encourage people to install central air filters in their homes.

109. After a thoracotomy, the nurse instructs the client to perform deep-breathing exercises. Which of the following is an expected outcome of these exercises?

☐ **1.** Deep breathing elevates the diaphragm, which enlarges the thorax and increases the lung surface available for gas exchange.
☐ **2.** Deep breathing increases blood flow to the lungs to allow them to recover from the trauma of surgery.
☐ **3.** Deep breathing controls the rate of air flow to the remaining lobe so that it will not become hyperinflated.
☐ **4.** Deep breathing expands the alveoli and increases the lung surface available for ventilation.

110. Following a thoracotomy, the client has severe pain. Which of the following strategies for pain management will be **most** effective for this client?

☐ **1.** Repositioning the client immediately after administering pain medication.
☐ **2.** Reassessing the client 30 minutes after administering pain medication.

☐ **3.** Verbally reassuring the client after administering pain medication.
☐ **4.** Readjusting the pain medication dosage as needed according to the client's condition.

111. While assessing a thoracotomy incisional area from which a chest tube exits, the nurse feels a crackling sensation under the fingertips along the entire incision. Which of the following should be the nurse's **first** action?
☐ **1.** Lower the head of the bed and call the physician.
☐ **2.** Prepare an aspiration tray.
☐ **3.** Mark the area with a skin pencil at the outer periphery of the crackling.
☐ **4.** Turn off the suction of the chest drainage system.

112. When teaching a client to deep breathe effectively after a lobectomy, the nurse should instruct the client to do which of the following?
☐ **1.** Contract the abdominal muscles, take a slow deep breath through the nose and hold it for 3 to 5 seconds, then exhale.
☐ **2.** Contract the abdominal muscles, take a deep breath through the mouth, and exhale slowly as if trying to blow out a candle.
☐ **3.** Relax the abdominal muscles, take a slow deep breath through the nose, and hold it for 3 to 5 seconds.
☐ **4.** Relax the abdominal muscles, take a deep breath through the mouth, and exhale slowly over 10 seconds.

113. Which of the following rehabilitative measures should the nurse teach the client who has undergone chest surgery to prevent shoulder ankylosis?
☐ **1.** Turn from side to side.
☐ **2.** Raise and lower the head.
☐ **3.** Raise the arm on the affected side over the head.
☐ **4.** Flex and extend the elbow on the affected side.

114. When caring for a client with a chest tube and water-seal drainage system, the nurse should:
☐ **1.** Verify that the air vent on the water-seal drainage system is capped when the suction is off.
☐ **2.** Strip the chest drainage tubes at least every 4 hours if excessive bleeding occurs.
☐ **3.** Ensure that the chest tube is clamped when moving the client out of the bed.
☐ **4.** Make sure that the drainage apparatus is always below the client's chest level.

115. A client has a chest tube attached to a water-seal drainage system and the nurse notes that the fluid in the chest tube and in the water-seal column has

stopped fluctuating. The nurse should determine that:

☐ **1.** The lung has fully expanded.
☐ **2.** The lung has collapsed.
☐ **3.** The chest tube is in the pleural space.
☐ **4.** The mediastinal space has decreased.

116. The nurse observes a constant gentle bubbling in the water-seal column of a water-seal chest drainage system. The nurse should:

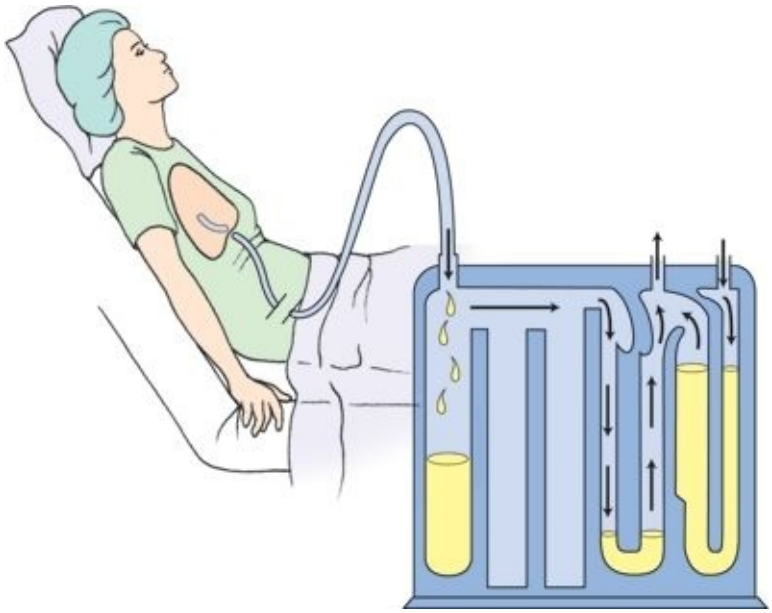
☐ **1.** Continue monitoring as usual; this is expected.
☐ **2.** Check the connectors between the chest and drainage tubes and where the drainage tube enters the collection bottle.
☐ **3.** Decrease the suction to −15 cm H_2O and continue observing the system for changes in bubbling during the next several hours.
☐ **4.** Drain half of the water from the water-seal chamber.

117. A client who underwent a lobectomy and has a water-seal chest drainage system is breathing with a little more effort and at a faster rate than 1 hour ago. The client's pulse rate is also increased. The nurse should:

☐ **1.** Check the tubing to ensure that the client is not lying on it or kinking it.
☐ **2.** Increase the suction.
☐ **3.** Lower the drainage bottles 2 to 3 feet (61 to 91.4 cm) below the level of the client's chest.
☐ **4.** Ensure that the chest tube has two clamps on it to prevent air leaks.

118. The nurse is assessing a client who has a chest tube connected to a water-seal chest tube drainage system. According to the illustration shown, which should the nurse do?

☐ **1.** Clamp the chest tube near the insertion site to prevent air from entering the pleural cavity.
☐ **2.** Notify the physician of the amount of chest tube drainage.
☐ **3.** Add water to maintain the water seal.
☐ **4.** Lower the drainage system to maintain gravity flow.



119. Which of the following should be readily available at the bedside of a client with a chest tube in place?

☐ **1.** A tracheostomy tray.
☐ **2.** Another sterile chest tube.
☐ **3.** A bottle of sterile water.
☐ **4.** A spirometer.

120. The nurse is preparing to assist with the removal of a chest tube. Which of the following is appropriate at the site from which the chest tube is removed?

☐ **1.** Adhesive strip (Steri-strips).
☐ **2.** Petroleum gauze.
☐ **3.** 4 × 4 gauze with antibiotic ointment.
☐ **4.** No dressing is necessary.

The Client with Chest Trauma

121. A nurse should interpret which of the following as an early sign of a tension pneumothorax in a client with chest trauma?

☐ **1.** Diminished bilateral breath sounds.
☐ **2.** Muffled heart sounds.
☐ **3.** Respiratory distress.
☐ **4.** Tracheal deviation.

A nurse is to administer 10 mg of morphine sulfate to a client with three fractured ribs. The available concentration for this drug is 15 mg/mL. How many milliliters should the nurse administer? Round to one decimal point.

_____ mL.

123. A young adult is admitted to the emergency department after an automobile accident. The client has severe pain in the right chest where there was an impact on the steering wheel. Which is the **primary** client goal at this time?

☐ **1.** Reduce the client's anxiety.
☐ **2.** Maintain adequate oxygenation.
☐ **3.** Decrease chest pain.
☐ **4.** Maintain adequate circulating volume.

124. A client with rib fractures and a pneumothorax has a chest tube inserted that is connected to a water-seal chest tube drainage system. The nurse notes that the fluid in the water-seal column is fluctuating with each breath that the client takes. What is the significance of this fluctuation?

☐ **1.** An obstruction is present in the chest tube.
☐ **2.** The client is developing subcutaneous emphysema.
☐ **3.** The chest tube system is functioning properly.
☐ **4.** There is a leak in the chest tube system.

125. A client who is recovering from chest trauma is to be discharged home with a chest tube drainage system intact. The nurse should instruct the client to call the physician for which of the following?

☐ **1.** Respiratory rate greater than 16 breaths/min.
☐ **2.** Continuous bubbling in the water-seal chamber.
☐ **3.** Fluid in the chest tube.
☐ **4.** Fluctuation of fluid in the water-seal chamber.

126. Which of the following findings would suggest pneumothorax in a trauma victim?

☐ **1.** Pronounced crackles.
☐ **2.** Inspiratory wheezing.
☐ **3.** Dullness on percussion.
☐ **4.** Absent breath sounds.

127. For a client with rib fractures and a pneumothorax, the physician prescribes morphine sulfate, 1 to 2 mg/h, given IV as needed for pain. The nursing care goal is to provide adequate pain control so that the client can breathe effectively. Which of the following outcomes would indicate successful achievement of this goal?

☐ **1.** Pain rating of 0 on a scale of 0 to 10 by the client.
☐ **2.** Decreased client anxiety.
☐ **3.** Respiratory rate of 26 breaths/min.
☐ **4.** PaO_2 of 70 mm Hg (9.31 kPa).

128. A client undergoes surgery to repair lung injuries. Postoperative prescriptions include the transfusion of one unit of packed red blood cells at a rate of 60 mL/h. How long will this transfusion take to infuse?

☐ **1.** 2 hours.
☐ **2.** 4 hours.
☐ **3.** 6 hours.
☐ **4.** 8 hours.

129. The primary reason for infusing blood at a rate of 60 mL/h is to help prevent which of the following complications?

☐ **1.** Emboli formation.
☐ **2.** Fluid volume overload.
☐ **3.** Red blood cell hemolysis.
☐ **4.** Allergic reaction.

130. A client has been in an automobile accident and the nurse is assessing the client for possible pneumothorax. The nurse should assess the client for:

☐ **1.** Sudden, sharp chest pain.
☐ **2.** Wheezing breath sounds over affected side.
☐ **3.** Hemoptysis.
☐ **4.** Cyanosis.

131. The physician has inserted a chest tube in a client with a pneumothorax. The nurse should evaluate the effectiveness of the chest tube:

☐ **1.** For administration of oxygen.

☐ **2.** To promote formation of lung scar tissue.
☐ **3.** To insert antibiotics into the pleural space.
☐ **4.** To remove air and fluid.

132. The nurse is preparing the client diagnosed with pleural effusion for a left-sided thoracentesis. The x-ray shows fluid in the pleural cavity. During the preparation for the procedure, the client asks where the physician will “put the needle.” Select the appropriate site from the diagram below.

133. A client is undergoing a thoracentesis. The nurse should monitor the client during and immediately after the procedure for which of the following? Select all that apply.
☐ **1.** Pneumothorax.
☐ **2.** Subcutaneous emphysema.
☐ **3.** Tension pneumothorax.
☐ **4.** Pulmonary edema.
☐ **5.** Infection.

134. When assessing a client with chest trauma, the nurse notes that the client is taking small breaths at first, then bigger breaths, then a couple of small breaths, then 10 to 20 seconds of no breaths. The nurse should chart the breathing pattern as:
☐ **1.** Cheyne-Stokes respiration.
☐ **2.** Hyperventilation.

☐ **3.** Obstructive sleep apnea.
☐ **4.** Bior's respiration.

The Client with Acute Respiratory Distress Syndrome

135. The nurse has placed the intubated client with acute respiratory distress syndrome (ARDS) in prone position for 30 minutes. Which of the following would require the nurse to discontinue prone positioning and return the client to the supine position? Select all that apply.

☐ **1.** The family is coming in to visit.
☐ **2.** The client has increased secretions requiring frequent suctioning.
☐ **3.** The SpO_2 and PO_2 have decreased.
☐ **4.** The client is tachycardic with drop in blood pressure.
☐ **5.** The face has increased skin breakdown and edema.

136. The nurse has calculated a low PaO_2/FIO_2 (P/F) ratio less than 150 for a client with acute respiratory distress syndrome (ARDS). The nurse should place the client in which position to improve oxygenation, ventilation distribution, and drainage of secretions?

☐ **1.** Supine.
☐ **2.** Semi-Fowler's.
☐ **3.** Lateral side.
☐ **4.** Prone.

137. A client with acute respiratory distress syndrome (ARDS) has fine crackles at lung bases and the respirations are shallow at a rate of 28 breaths/min. The client is restless and anxious. In addition to monitoring the arterial blood gas results, the nurse should do which of the following? Select all that apply.

☐ **1.** Monitor serum creatinine and blood urea nitrogen levels.
☐ **2.** Administer a sedative.
☐ **3.** Keep the head of the bed flat.
☐ **4.** Administer humidified oxygen.
☐ **5.** Auscultate the lungs.

138. Which of the following interventions would be **most** likely to prevent the development of acute respiratory distress syndrome (ARDS)?

☐ **1.** Teaching cigarette smoking cessation.
☐ **2.** Maintaining adequate serum potassium levels.

☐ **3.** Monitoring clients for signs of hypercapnia.
☐ **4.** Replacing fluids adequately during hypovolemic states.

139. The nurse interprets which of the following as an early sign of acute respiratory distress syndrome (ARDS) in a client at risk?
☐ **1.** Elevated carbon dioxide level.
☐ **2.** Hypoxia not responsive to oxygen therapy.
☐ **3.** Metabolic acidosis.
☐ **4.** Severe, unexplained electrolyte imbalance.

A client with acute respiratory distress syndrome (ARDS) is showing signs of increased dyspnea. The nurse reviews a report of blood gas values that recently arrived, shown below.

Laboratory Results

Blood chemistry	Result
pH	7.35
$PaCO_2$	25 mm Hg (3.3 kPa)
Hco_3^-	22 mEq/L (22 mmol/L)
PaO_2	95 mm Hg (12.6 kPa)

Which finding should the nurse report to the physician?
☐ **1.** pH.
☐ **2.** $PaCO_2$.
☐ **3.** HCO_3^-.
☐ **4.** PaO_2.

141. A client with acute respiratory distress syndrome (ARDS) is on a ventilator. The client's peak inspiratory pressures and spontaneous respiratory rate are increasing, and the PO_2 is not improving. Using the SBAR (Situation-Background-Assessment-Recommendation) technique for communication, the nurse calls the physician with the recommendation for:
☐ **1.** Initiating IV sedation.
☐ **2.** Starting a high-protein diet.
☐ **3.** Providing pain medication.
☐ **4.** Increasing the ventilator rate.

142. A client, diagnosed with acute pancreatitis 5 days ago, is experiencing respiratory distress. The nurse should report which of the following to the health care provider?

☐ **1.** Arterial oxygen level of 46 mm Hg.
☐ **2.** Respirations of 12.
☐ **3.** Lack of adventitious lung sounds.
☐ **4.** Oxygen saturation of 96% on room air.

143. A client has the following arterial blood gas values: pH, 7.52; PaO_2, 50 mm Hg (6.7 kPa); $PaCO_2$, 28 mm Hg (3.72 kPa); HCO_3^-, 24 mEq/L (24 mmol/L). Based upon the client's PaO_2, which of the following conclusions would be accurate?

☐ **1.** The client is severely hypoxic.
☐ **2.** The oxygen level is low but poses no risk for the client.
☐ **3.** The client's PaO_2 level is within normal range.
☐ **4.** The client requires oxygen therapy with very low oxygen concentrations.

144. A client has the following arterial blood gas values: pH, 7.52; PaO_2, 50 mm Hg (6.7 kPa); $PaCO_2$, 28 mm Hg (3.7 kPa); HCO_3^-, 24 mEq/L (24 mmol/L). The nurse determines that which of the following is a possible cause for these findings?

☐ **1.** Chronic obstructive pulmonary disease (COPD).
☐ **2.** Diabetic ketoacidosis with Kussmaul's respirations.
☐ **3.** Myocardial infarction.
☐ **4.** Pulmonary embolus.

145. Which of the following interventions should the nurse anticipate in a client who has been diagnosed with acute respiratory distress syndrome (ARDS)?

☐ **1.** Tracheostomy.
☐ **2.** Use of a nasal cannula.
☐ **3.** Mechanical ventilation.
☐ **4.** Insertion of a chest tube.

146. Which of the following conditions can place a client at risk for acute respiratory distress syndrome (ARDS)?

☐ **1.** Septic shock.
☐ **2.** Chronic obstructive pulmonary disease.
☐ **3.** Asthma.
☐ **4.** Heart failure.

147. Which of the following assessments is **most** appropriate for determining the correct placement of an endotracheal tube in a mechanically ventilated client?

☐ **1.** Assessing the client's skin color.
☐ **2.** Monitoring the respiratory rate.
☐ **3.** Verifying the amount of cuff inflation.
☐ **4.** Auscultating breath sounds bilaterally.

148. Which of the following nursing interventions would promote effective airway clearance in a client with acute respiratory distress?

☐ **1.** Administering oxygen every 2 hours.
☐ **2.** Turning the client every 4 hours.
☐ **3.** Administering sedatives to promote rest.
☐ **4.** Suctioning if cough is ineffective.

149. Which of the following complications is associated with mechanical ventilation?

☐ **1.** Gastrointestinal hemorrhage.
☐ **2.** Immunosuppression.
☐ **3.** Increased cardiac output.
☐ **4.** Pulmonary emboli.

The Client with Carbon Monoxide Poisoning

150. A client is admitted to the emergency department with a headache, weakness, and slight confusion. The physician diagnoses carbon monoxide poisoning. What should the nurse do **first**?

☐ **1.** Initiate gastric lavage.
☐ **2.** Maintain body temperature.
☐ **3.** Administer 100% oxygen by mask.
☐ **4.** Obtain a psychiatric referral.

151. A confused client with carbon monoxide poisoning experiences dizziness when ambulating to the bathroom. The nurse should:

☐ **1.** Put all four side rails up on the bed.
☐ **2.** Ask the unlicensed personnel to place restraints on the client's upper extremities.
☐ **3.** Request that the client's roommate put the call light on when the client is attempting to get out of bed.
☐ **4.** Check on the client at regular intervals to ascertain the need to use the bathroom.

152. Which of the following is an expected outcome for a client with carbon dioxide poisoning?

☐ **1.** A relatively matched ventilation-to-perfusion ratio.
☐ **2.** A low ventilation-to-perfusion ratio.
☐ **3.** A high ventilation-to-perfusion ratio.
☐ **4.** An equal PaO_2 and $PaCO_2$ ratio.

Managing Care Quality and Safety

153. The nurse should place a client being admitted to the hospital with suspected tuberculosis on what type of isolation?

☐ **1.** Standard precautions.
☐ **2.** Contact precautions.
☐ **3.** Droplet precautions.
☐ **4.** Airborne precautions.

154. A client has developed a hospital-acquired pneumonia. When preparing to administer cephalexin 500 mg, the nurse notices that the pharmacy sent cefazolin. What should the nurse do? Select all that apply.

☐ **1.** Administer the cefazolin.
☐ **2.** Verify the medication prescription as written by the physician.
☐ **3.** Contact the pharmacy and speak to a pharmacist.
☐ **4.** Request that cephalexin be sent promptly.
☐ **5.** Return the cefazolin to the pharmacy.

155. A nurse receives the taped change-of-shift report for assigned clients and prioritizes client rounds. In what order should the nurse assess these clients?

1. A client with an endotracheal tube transferred out of the intensive care unit that day.
2. A client with type 2 diabetes who had a cerebrovascular accident 4 days ago.
3. A client with cellulitis of the left lower extremity with a fever of 100.8°F (38.2°C).
4. A client receiving D5W IV at 125 mL/h with 75 mL remaining.

156. Which of the following individuals has the **highest** priority for receiving seasonal influenza vaccination?

☐ **1.** A 60-year-old man with a hiatal hernia.
☐ **2.** A 36-year-old woman with three children.
☐ **3.** A 50-year-old woman caring for a spouse with cancer.
☐ **4.** A 60-year-old woman with osteoarthritis.

157. The nurse is a member of a team that is planning a client-centered approach to care of clients with chronic obstructive pulmonary disease (COPD) using the Chronic Care Model (CCM). The team should focus on improving quality of care and delivery in which of the following areas? Select all that apply.

☐ **1.** The community.
☐ **2.** Clinical information systems.
☐ **3.** Delivery system design.
☐ **4.** Administrative leadership.
☐ **5.** Emphasis on the acute care setting.

158. The nurse is caring for a client admitted for pneumonia with a history of hypertension and heart failure. The client has reported at least one fall in the last 3 months. The client may ambulate with assistance, has a saline lock in place, and has demonstrated appropriate use of the call light to request assistance. Using the Morse Fall Scale (see chart), what is this client's total score and risk level?

Item	Scale		Scoring
1. History of falling; immediate or within 3 months	No Yes	0 25	
2. Secondary diagnosis	No Yes	0 15	
3. Ambulatory aid Bed rest/nurse assist Crutches/cane/walker Furniture		 0 15 30	
4. IV/Heparin Lock	No Yes	0 20	
5. Gait/Transferring Normal/bedrest/ immobile Weak Impaired		 0 10 20	
6. Mental status Oriented to own ability Forgets limitations		 0 15	

☐ **1.** 20, low risk.
☐ **2.** 30, medium risk.
☐ **3.** 40, medium risk.
☐ **4.** 60, high risk.

159. The nurse is caring for a client who has been placed on droplet precautions. Which of the following protective gear is required to take care of this client? Select all that apply.

☐ **1.** Gloves.
☐ **2.** Gown.
☐ **3.** Surgical mask.
☐ **4.** Glasses.
☐ **5.** Respirator.

160. While making rounds, the nurse finds a client with COPD sitting in a wheelchair, slumped over a lunch tray. After determining the client is unresponsive and calling for help, the nurse's **first** action should be to:

☐ **1.** Push the “code blue” (emergency response) button.
☐ **2.** Call the rapid response team.
☐ **3.** Open the client's airway.
☐ **4.** Call for a defibrillator.

161. The nurse is caring for a client with pneumonia who is confused about time and place and has intravenous fluids infusing. Despite the nurse's attempt to reorient the client and then provide distraction, the client has begun to pull at the IV tubing. After increasing the frequency of observation, in which order should the nurse implement the following interventions to ensure the client's safety?

1. Review the client's medications for interactions that may cause or increase confusion.
2. Assess the client's respiratory status including oxygen saturation.
3. Ensure the client does not need toileting or pain medications.
4. Contact the physician and request a prescription for soft wrist restraints

Answers, Rationales, and Test-Taking Strategies

The answers and rationales for each question follow below, along with keys (🔑) to the client need (CN) and cognitive level (CL) for each question. As you check your answers, use the ***Content Mastery and Test-Taking Skill Self-Analysis*** *worksheet (tear-out worksheet in back of book) to identify the reason(s) for not answering the questions correctly. For additional information about test-taking skills and strategies for answering questions, refer to pages 10–21 and pages 31–32 in Part 1 of this book.*

The Client with an Upper Respiratory Tract Infection

1. 1. At this time, there is no strong research evidence to warrant recommendations of herbal products for management of colds; further study is needed to show evidence of therapeutic effects and indications. Antibiotics are effective against bacteria; the head cold may have a viral cause. An uncomplicated upper respiratory tract infection subsides within 2 to 3 weeks. There may be a drug-drug interaction with herbal products and prescriptions.

🔑 CN: Basic care and comfort; CL: Synthesize

2. 1, 4, 5. Antihistamines have an anticholinergic action and a drying effect and reduce nasal, salivary, and lacrimal gland hypersecretion (runny nose, tearing, and itching eyes). An adverse effect is drowsiness, so operating machinery and driving are not recommended. There is also an additive depressant effect when alcohol is combined with antihistamines, so alcohol should be avoided during antihistamine use. The client should ensure adequate fluid intake of at least eight glasses per day due to the drying effect of the drug. Antihistamines have no antibacterial action. The effect of antihistamines is prompt, not delayed.

🔑 CN: Pharmacological and parenteral therapies; CL: Create

3. 3. When using an intranasal inhaler, it is important to close off one nostril while inhaling the spray into the other nostril to ensure the best inhalation of the spray. Use of the inhaler is not limited to mornings and bedtime. The canister should be shaken immediately before use. The inhaler tip should be inserted into

the nostril and pointed toward the outside nostril wall to maximize inhalation of the medication.

CN: Pharmacological and parenteral therapies; CL: Evaluate

4. 4. A client recovering from an upper respiratory tract infection should report decreasing or no nasal discharge and obstruction. Daily fluid intake should be increased to more than 1 L every 24 hours to liquefy secretions. The temperature should be below 100°F (37.8°C) with no chills or diaphoresis. A productive cough with chest pain indicates a pulmonary infection, not an upper respiratory tract infection.

CN: Physiological adaptation; CL: Evaluate

5. 2. The client should blow the nose before instilling nose drops. Instilling nose drops is a clean technique. The dropper should be cleaned after each administration, but it does not need to be changed. The client should assume a position that will allow the medication to reach the desired area; this is usually a supine position.

CN: Pharmacological and parenteral therapies; CL: Evaluate

6. 3. The client with chronic sinusitis should be instructed to take hot showers in the morning and evening to promote drainage of secretions. There is no need to limit caffeine intake. Performing postural drainage will inhibit removal of secretions, not promote it. Clients should elevate the head of the bed to promote drainage. Clients should report all temperatures higher than 100.4°F (38°C), because a temperature that high can indicate infection.

CN: Reduction of risk potential; CL: Synthesize

7. 4. It is important for clients with allergic rhinitis to determine the precipitating factors so that they can be avoided. Keeping a diary can help identify these triggers. Nasal decongestant sprays should not be used regularly because they can cause a rebound effect. Antibiotics are not appropriate for allergic rhinitis because an infection is not present. Increasing activity will not control the client's symptoms; in fact, walking outdoors may increase them if the client is allergic to pollen.

CN: Health promotion and maintenance; CL: Synthesize

$$300\,\text{mg} / X = 200\,\text{mg} / 5\,\text{mL}$$

8. 7.5 mL $X = 7.5\,\text{mL}.$

CN: Pharmacological and parenteral therapies; CL: Apply

9. 4. Adverse effects of pseudoephedrine (Sudafed) are experienced

primarily in the cardiovascular system and through sympathetic effects on the central nervous system (CNS). The most common CNS adverse effects include restlessness, dizziness, tension, anxiety, insomnia, and weakness. Common cardiovascular adverse effects include tachycardia, hypertension, palpitations, and arrhythmias. Constipation and diplopia are not adverse effects of pseudoephedrine. Tachycardia, not bradycardia, is an adverse effect of pseudoephedrine.

CN: Pharmacological and parenteral therapies; CL: Analyze

The Client Undergoing Nasal Surgery

10. 4. Epistaxis, or nosebleed, is a common, sudden emergency. Commonly, no apparent explanation for the bleeding is known. With significant blood loss, systemic symptoms, such as vertigo, increased pulse, shortness of breath, decreased blood pressure, and pallor, will occur. Because aerobic exercise may increase blood pressure and increased blood pressure can cause epistaxis, the client with hypertension should avoid it. Aspirin inhibits platelet aggregation, reducing the ability of the blood to clot. The client should continue to take his antihypertension medication, ramipril (Altace). Posterior nasal packing should be left in place for 1 to 3 days.

CN: Health promotion and maintenance; CL: Synthesize

11. 2. Because of the dense nasal packing, bleeding may not be apparent through the nasal drip pad. Instead, the blood may run down the throat, causing the client to swallow frequently. The back of the throat, where the blood will be apparent, can be assessed with a flashlight. An accumulation of blood in the stomach can cause nausea and vomiting, but nausea would not be the initial indicator of bleeding. An increased respiratory rate occurs in shock but is not an early sign of bleeding in a client who has undergone nasal surgery. Increased pain warrants further assessment but is not an indicator of bleeding.

CN: Reduction of risk potential; CL: Analyze

12. 1. The client should be instructed to avoid any activities that cause Valsalva's maneuver (eg, constipation, vigorous coughing, exercise) in order to reduce bleeding and stress on suture lines. The client should not take aspirin because of its antiplatelet properties, which may cause bleeding. Oral hygiene is important to rid the mouth of old dried blood and to enhance the client's appetite. Cool compresses, not heat, should be applied to decrease swelling and control discoloration of the area.

CN: Physiological adaptation; CL: Create

13. 2. Constipation can cause straining during defecation, which can induce bleeding. Showering is not contraindicated. The client should take measures to prevent coughing, which can cause bleeding. The client should avoid blowing the nose for 48 hours after the packing is removed. Thereafter, the client should blow the nose gently, using the open-mouth technique to minimize bleeding in the surgical area.

 CN: Physiological adaptation; CL: Evaluate

14. 4. Aspirin-containing medications should be discontinued for 2 weeks before surgery to decrease the risk of bleeding. Nasal packing is usually removed the day after surgery. Normal saline nose drops are not routinely administered preoperatively. The results of the surgery will not be obvious immediately after surgery because of edema and ecchymosis.

 CN: Reduction of risk potential; CL: Create

15. 3. Immediately after nasal surgery, ineffective breathing patterns may develop as a result of the nasal packing and nasal edema. Nasal packing may dislodge, leading to obstruction. Assessing for airway obstruction is a priority. Assessing for pain is important, but it is not as high a priority as assessment of the airways. It is too early to detect ecchymosis. Measuring intake and output is not typically a priority nursing assessment after nasal surgery.

 CN: Physiological adaptation; CL: Analyze

16. 4. Applying cold compresses helps to decrease facial swelling and pain from edema. Analgesics may decrease pain, but they do not decrease edema. A corticosteroid nasal spray would not be administered postoperatively because it can impair healing. Use of a bedside humidifier promotes comfort by providing moisture for nasal mucosa, but it does not decrease edema.

 CN: Basic care and comfort; CL: Synthesize

17. 1. Frequent mouth care is important to provide comfort and encourage eating. Mouth care promotes moist mucous membranes. Nose drops cannot be used with nasal packing in place. When sneezing and coughing, the client should do so with the mouth open to decrease the chance of dislodging the packing. Gargling should not be attempted with packing in place.

 CN: Basic care and comfort; CL: Create

18. 2. After removal of nasal packing, the client should be instructed to apply water-soluble jelly to the nares to lubricate the nares and promote comfort. Swelling gradually subsides over several weeks; the client can gently clean the nares as soon as packing is removed. A nasal drip pad is not needed after

removal of packing. Irrigation with a bulb syringe may interfere with healing and introduce infection.

CN: Basic care and comfort; CL: Synthesize

19. 4. The client should assume a sitting position and lean forward. Firm pressure should be applied to the soft portion of the nose for approximately 10 minutes. Tilting the head backward can cause the client to swallow blood, which can obscure the amount of bleeding and also can lead to nausea. Ice compresses may be applied, but the client should not lie flat. Blowing the nose is to be avoided because it can increase bleeding.

CN: Reduction of risk potential; CL: Synthesize

20. 3. Posterior packing may alter the respiratory status of the client, especially in elderly clients, causing hypoventilation. Clients should be observed carefully for changes in level of consciousness, respiratory rate, and heart rate and rhythm after the insertion of the packing. Vertigo does not occur as a result of the insertion of posterior packing. Bell's palsy, a disorder of the seventh cranial nerve, is not associated with epistaxis or nasal packing. Loss of gag reflex does not occur as a result of the insertion of posterior packing.

CN: Reduction of risk potential; CL: Analyze

The Client with Cancer of the Larynx

21. 4. The nurse must maintain patency of the airway with frequent suctioning of the laryngectomy tube that can become occluded from secretions, blood, and mucus plugs. Once the client is hemodynamically stable, getting out of bed should be encouraged to prevent postoperative complications. Vital signs should be monitored more frequently in a postoperative client. A swallow study is done at approximately 5 to 7 days after surgery, prior to starting oral intake.

CN: Physiological adaptation; CL: Synthesize

22. 4. The client has undergone body changes and permanent loss of verbal communication. He may feel isolated and insecure. The nurse can encourage him to express his feelings and use this information to develop an appropriate plan of care. Discussing the client's behavior with his wife may not reveal his feelings. Exploring future plans is not appropriate at this time because more information about the client's behavior is needed before proceeding to this level. The nurse can respect the client's need for privacy while also encouraging him to express his feelings.

CN: Psychosocial adaptation; CL: Synthesize

23. 1. A client should be suctioned for no longer than 10 seconds at a time. Suctioning for longer than 10 seconds may reduce the client's oxygen level so much that he becomes hypoxic.

CN: Reduction of risk potential; CL: Apply

24. 1. The recommended technique is to use a sterile catheter each time the client is suctioned. There is a danger of introducing organisms into the respiratory tract when strict aseptic technique is not used. Reusing a suction catheter is not consistent with aseptic technique. The nurse does not use a clean catheter when suctioning a tracheostomy or a laryngectomy; it is a sterile procedure.

CN: Reduction of risk potential; CL: Apply

25. 4. Changes in body image are expected after a laryngectomy, and the nurse should first explore what is upsetting the client the most at this time. Many clients are concerned about how their family members will respond to the physical changes that have occurred as a result of a laryngectomy, but discussing the importance of family support is not helpful; instead, the nurse should allow the client to communicate any negative feelings or concerns that exist because of the surgery. The client's feelings are not related to a knowledge deficit, and therefore, it is too early to begin teaching about stoma care. It is also not helpful to offer reassurances about the change in appearance; the client will require time to adjust to the changed body image.

CN: Psychosocial adaptation; CL: Synthesize

26. 1. The tracheostomy tube, ties, and gauze pad are positioned correctly; the nurse should be sure the client is comfortable. The tracheostomy tube ties should be tied in a square knot on the side of the neck and alternate sides of the neck when the ties are changed. The full part of the gauze square should be placed under the tracheostomy tube to absorb drainage. There is no indication the ties need to be changed; an additional gauze pad is not necessary; if necessary, the current gauze square should be changed rather than add an additional pad.

CN: Basic care and comfort; CL: Evaluate

27. 1, 3. The primary risk factors for laryngeal cancer are smoking and alcohol abuse. Smoking cessation is most successful with a support group or counseling. Heavy drinking should be avoided since the risk increases with amount of alcohol consumption. HEPA filters help trap small particles and allergens to reduce allergy symptoms and asthma. Poor oral hygiene is not a risk

factor, nor is overusing the voice.

CN: Health promotion and maintenance; CL: Create

28. 3. Hoarseness occurring longer than 2 weeks is a warning sign of laryngeal cancer. The nurse should first assess other signs, such as a lump in the neck or throat, persistent sore throat or cough, earache, pain, and difficulty swallowing (dysphagia). Gargling with salt water may lead to increased irritation. There is no indication of infection warranting an antibiotic. An oral analgesic would provide only temporary relief of discomfort if hoarseness is accompanied by a sore throat.

CN: Physiological adaptation; CL: Synthesize

29. 1. Immediately after surgery, the client should be maintained in a position with the head of the bed elevated 30 to 40 degrees (semi-Fowler's position) to decrease tissue edema, facilitate breathing, and decrease pain related to edema formation. Immediately postoperatively, the client should be provided alternative means of communicating, such as a communication board. As healing progresses and edema subsides, a speech therapist should work with the client to explore various voice restoration options, such as the use of a voice prosthesis, electrolarynx, artificial larynx, or esophageal speech. Food is not initiated in the immediate postoperative phase; enteral feedings are usually used to meet nutritional needs until edema subsides. Irrigation of the drainage tubes is an inappropriate action.

CN: Basic care and comfort; CL: Synthesize

30. 3. It is important that the client be able to communicate his or her feelings about the body image changes that have occurred as a result of surgery. Open communication helps promote adjustment. The client may not regain the ability to taste and smell food because of no longer breathing through the nose or because of radiation therapy treatments, or both. A gastrostomy tube would not typically be placed after a total laryngectomy, nor would it be necessary for the client to demonstrate sterile suctioning technique for stoma care. The client would use clean technique.

CN: Physiological adaptation; CL: Evaluate

31. 2. Adequate humidity should be provided in the home to help keep secretions moist. A bedside humidifier is recommended. A high fluid intake is also important to liquefy secretions. Mouth care is important to prevent drying of mucous membranes and should be performed frequently throughout the day, especially before and after meals, to help stimulate appetite. The client may eat

any food that can be chewed and swallowed comfortably. The client may resume physical activity as tolerated.

CN: Reduction of risk potential; CL: Synthesize

32.

1. An 85-year-old client with bacterial pneumonia, temperature of 102.2°F (42°C), and shortness of breath.

2. A 60-year-old client with chest tubes who is 2 days postoperative following a thoracotomy for lung cancer and is requesting something for pain.

4. A 56-year-old client with emphysema who has a scheduled dose of a bronchodilator due to be administered, with no report of acute respiratory distress.

3. A 35-year-old client with suspected tuberculosis who has a cough.

The elderly client with pneumonia, an elevated temperature, and shortness of breath is the most acutely ill client described and should be the client with the highest priority. The elevated temperature and the shortness of breath can lead to a decrease in the client's oxygen levels, and can predispose the client to dehydration and confusion. Then the nurse should assess the client with the thoracotomy who is requesting pain medication and administer any needed medication. The client with emphysema should be the next priority so that the bronchodilator can be administered on schedule as close as possible. The nurse would then assess the client with suspected tuberculosis and a cough.

CN: Management of care; CL: Synthesize

The Client with Pneumonia

33. 2. Restraints should be secured to the bedframe, not the siderails, to ensure that the siderails can be raised and lowered safely. Circulation checks, re-evaluating need for restraints, and documentation should be done every 1 to 2 hours. Medical restraint prescriptions must be renewed and signed by a physician every 24 hours.

CN: Safety and infection control; CL: Synthesize

34. 1. The client's age is a predisposing factor for pneumonia; pneumonia is more common in elderly or debilitated clients. Other predisposing factors include smoking, upper respiratory tract infections, malnutrition, immunosuppression, and the presence of a chronic illness. Osteoarthritis, a nutritionally sound vegetarian diet, and frequent bathing are not predisposing factors for pneumonia.

CN: Reduction of risk potential; CL: Analyze

35. 1, 3, 5. A respiratory assessment, which includes auscultating breath sounds and assessing the color of the nail beds, is a priority for clients with pneumonia. Assessing for the presence of chest pain is also an important respiratory assessment as chest pain can interfere with the client's ability to breathe deeply. Auscultating bowel sounds and assessing for peripheral edema may be appropriate assessments, but these are not priority assessments for the client with pneumonia.

CN: Physiological adaptation; CL: Analyze

36. 2. A sputum specimen is obtained for culture to determine the causative organism. After the organism is identified, an appropriate antibiotic can be prescribed. Beginning antibiotic therapy before obtaining the sputum specimen may alter the results of the test. Urinalysis, a chest radiograph, and a red blood cell count do not need to be obtained before initiation of antibiotic therapy for pneumonia.

CN: Reduction of risk potential; CL: Apply

37. 3. It is essential to monitor serum creatinine in the client receiving an aminoglycoside antibiotic because of the potential of this type of drug to cause acute tubular necrosis. Aminoglycoside antibiotics do not affect serum sodium, potassium, or calcium levels.

CN: Pharmacological and parenteral therapies; CL: Analyze

38. 4. The nurse should determine if the client is allergic to penicillin prior to administering the drug. History of seizures, recent infections, and a cardiac history are not contraindications to for this client for receiving penicillin. While important to know, recent infections will not preclude this client receiving penicillin at this time.

CN: Pharmacological and Parenteral Therapies; CL: Apply

39. 3. Frequent linen changes are appropriate for this client because of the

diaphoresis. Diaphoresis produces general discomfort. The client should be kept dry to promote comfort. Position changes need to be done every 2 hours. Nasotracheal suctioning is not indicated with the client's productive cough. Frequent offering of a bedpan is not indicated by the data provided in this scenario.

 CN: Basic care and comfort; CL: Synthesize

40. 1. Exudate in the alveoli interferes with ventilation and the diffusion of gases in clients with pneumonia. During the acute phase of the illness, it is essential to reduce the body's need for oxygen at the cellular level; bed rest is the most effective method for doing so. Bed rest does not decrease coughing or promote clearance of secretions, and it does not reduce pain when taking deep breaths.

 CN: Physiological adaptation; CL: Evaluate

41. 4. A client with pneumonia has less lung surface available for the diffusion of gases because of the inflammatory pulmonary response that creates lung exudate and results in reduced oxygenation of the blood. The client becomes cyanotic because blood is not adequately oxygenated in the lungs before it enters the peripheral circulation. Decreased cardiac output may be a comorbid condition in some clients with pneumonia; however, it is not the cause of cyanosis. Pleural effusions are a potential complication of pneumonia but are not the primary cause of decreased oxygenation. Inadequate peripheral circulation is also not the cause of the cyanosis that develops with bacterial pneumonia.

 CN: Physiological adaptation; CL: Analyze

42. 3. Chest pain in pneumonia is generally caused by friction between the pleural layers. It is more severe on inspiration than on expiration, secondary to chest wall movement. Pleuritic chest pain is usually described as sharp, not mild or aching. Pleuritic chest pain is not localized to the sternum, and it is not the result of a muscle spasm.

 CN: Physiological adaptation; CL: Analyze

43. 4. The pleuritic pain is triggered by chest movement and is particularly severe during coughing. Splinting the chest wall will help reduce the discomfort of coughing. Deep breathing is essential to prevent further atelectasis. Abdominal breathing is not as effective in decreasing pleuritic chest pain as is splinting of the rib cage. Incentive spirometry facilitates effective deep breathing but does not decrease pleuritic chest pain.

CN: Physiological adaptation; CL: Synthesize

44. 1, 3. Aspirin is administered to clients with pneumonia because it is an analgesic that helps control chest discomfort and an antipyretic that helps reduce fever. Aspirin has an anticoagulant effect, but that is not the reason for prescribing it for a client with pneumonia, and the use of the drug will be short term. Aspirin does not affect the respiratory rate and does not facilitate expectoration of secretions.

CN: Pharmacological and parenteral therapies; CL: Evaluate

45. 3. Clients who are experiencing hypoxia characteristically exhibit irritability, restlessness, or anxiety as initial mental status changes. As the hypoxia becomes more pronounced, the client may become confused and combative. Coma is a late clinical manifestation of hypoxia. Apathy and depression are not symptoms of hypoxia.

CN: Physiological adaptation; CL: Analyze

46. 1. Docusate sodium (Colace) is a stool softener that allows fluid and fatty substances to enter the stool and soften it. Docusate sodium does not lubricate the stool, increase stool bulk, or stimulate peristalsis.

CN: Pharmacological and parenteral therapies; CL: Apply

47. 2, 3, 5. A client with pneumonia experiencing diaphoresis is at risk for dehydration and increased temperature and heart rate. The fluid status, intake, and urine output should be monitored closely. The client is febrile, causing an increase in heart rate. Fluid volume deficit may also increase the heart rate. The underlying cause of the tachycardia can be treated with acetaminophen (Tylenol) and increased intake of fluids. Bed rest limits lung expansion and sitting up and deep breathing should be encouraged in a client with pneumonia. The blood pressure is stable enough to allow the client to get out of bed to the chair, with assistance to ensure safety. It is not necessary to notify the physician.

CN: Physiological adaptation; CL: Synthesize

48. 2. An expected outcome for a client recovering from pneumonia would be the ability to perform activities of daily living without experiencing dyspnea. A respiratory rate of 25 to 30 breaths/min indicates the client is experiencing tachypnea, which would not be expected on recovery. A weight loss of 5 to 10 lb (2.27 to 4.53 kg) is undesirable; the expected outcome would be to maintain normal weight. A client who is recovering from pneumonia should experience decreased or no chest pain.

CN: Management of care; CL: Evaluate

The Client with Tuberculosis

49. 1. Implementing airborne precautions for possible TB requires a private room assignment. In addition to isolating the client by using a private room, engineering controls can help prevent the spread of TB; a room at the end of the hall will aid in controlling airflow direction and can prevent contamination of air in adjacent areas. Confidentiality is provided for every client, regardless of the client's room location. Sunlight is not a component of isolation precautions.

 CN: Physiological adaptation; CL: Apply

50. 1. Tuberculosis typically produces anorexia and weight loss. Other signs and symptoms may include fatigue, low-grade fever, and night sweats. Increased appetite is not a symptom of tuberculosis; dyspnea on exertion and change in mental status are not common symptoms of tuberculosis.

 CN: Physiological adaptation; CL: Analyze

51. 1. There is a high risk and potential for tuberculosis, and airborne precautions should be implemented immediately to prevent the spread of infection. After initiating precautions the nurse can start the oxygen, check the vital signs, and collect the sputum specimen.

 CN: Safety and infection control; CL: Synthesize

52. 3. Streptomycin can cause toxicity to the eighth cranial nerve, which is responsible for hearing, balance, and body position sense. Nephrotoxicity is a side effect that would be indicated with an increase in creatinine. Streptomycin is given via intramuscular injection.

 CN: Pharmacological and parenteral therapies; CL: Analyze

53. 1. The eighth cranial nerve is the vestibulocochlear nerve, which is responsible for hearing and equilibrium. Streptomycin can damage this nerve (ototoxicity). Symptoms of ototoxicity include vertigo, tinnitus, hearing loss, and ataxia. Facial paralysis would result from damage to the facial nerve (VII). Impaired vision would result from damage to the optic (II), oculomotor (III), or the trochlear (IV) nerves. Difficulty swallowing would result from damage to the glossopharyngeal (IX) or the vagus (X) nerve.

 CN: Pharmacological and parenteral therapies; CL: Analyze

54. 4. The nurse should tell the client that it is necessary to take all of these medications because combination drug therapy prevents bacterial resistance; they will be administered throughout the hospitalization to maintain blood levels. The health care provider will review the prescriptions per hospital policy

because the client is being admitted to the hospital; there is no duplication between any of the drugs being prescribed for this client. It is not necessary to ask the pharmacist to check for drug interactions as these drugs are commonly used together.

 CN: Pharmacologic and parenteral therapy; CL: Synthesize

55. 2. Tubercle bacilli are spread by airborne droplet nuclei. Droplet nuclei are the residue of evaporated droplets containing the bacilli, which remain suspended and are circulated in the air. Dust particles and water do not spread tubercle bacilli. Tuberculosis is not spread by eating utensils, dishes, or other fomites.

 CN: Safety and infection control; CL: Apply

56. 4. Use of a combination of antituberculosis drugs slows the rate at which organisms develop drug resistance. Combination therapy also appears to be more effective than single-drug therapy. Many drugs potentiate (or inhibit) the actions of other drugs; however, this is not the rationale for using multiple drugs to treat tuberculosis. Treatment with multiple drugs does not reduce adverse effects and may expose the client to more adverse effects. Combination therapy may allow some medications (eg, antihypertensives) to be given in reduced dosages; however, reduced dosages are not prescribed for antibiotics and antituberculosis drugs.

 CN: Pharmacological and parenteral therapies; CL: Apply

57. 2. Ensuring that the client is well educated about tuberculosis is the highest priority. Education of the client and family is essential to help the client understand the need for completing the prescribed drug therapy to cure the disease. Offering the client emotional support, coordinating various agency services, and assessing the environment may be part of the care for the client with tuberculosis; however, these interventions are of less importance than education about the disease process and its treatment.

 CN: Basic care and comfort; CL: Synthesize

58. 3. The tuberculin test is positive. The test should be interpreted 2 to 3 days after administering the purified protein derivative (PPD) by measuring the size of the firm, raised area (induration). Positive responses indicate that the client may have been exposed to the tuberculosis bacteria. A negative response is indicated by the absence of a firm, raised area, or an area that is less than 5 mm in diameter. Since the test is positive, it is not necessary to redo the test. The test is positive, not false.

CN: Physiological adaptation; CL: Analyze

59. 1. The Mantoux test is administered via intradermal injection. The appropriate technique for an intradermal injection includes holding the needle and syringe almost parallel to the client's skin, keeping the skin slightly taut when the needle is inserted, and inserting the needle with the bevel side up. There is no need to aspirate, a technique that assesses for incorrect placement in a blood vessel, when giving an intradermal injection. The injection site is not massaged.

CN: Pharmacological and parenteral therapies; CL: Apply

60. 3. An induration (palpable raised hardened area of skin) of more than 5 to 15 mm (depending upon the person's risk factors) to 10 Mantoux units is considered a positive result, indicating TB infection. An induration of greater than 5 mm is found in HIV-positive individuals, those with recent contacts with persons with TB, persons with nodular or fibrotic changes on chest x-ray consistent with old healed TB, or clients with organ transplants or immunosuppressed. An induration of greater than 10 mm is positive and the client may be a recent arrival (less than 5 years) from high-prevalent countries, injection drug user, resident or an employee of high-risk congregate settings (eg, prisons, long-term care facilities, hospitals, homeless shelters, etc.), or mycobacteriology lab personnel. Persons with clinical conditions that place them at high risk (eg, diabetes, prolonged corticosteroid therapy, leukemia, end-stage renal disease, chronic malabsorption syndromes, low body weight, etc.), a child less than 4 years of age, or a child or adolescents exposed to adults in high-risk categories.

CN: Physiological adaptation; CL: Analyze

61. 4. Elderly persons are believed to be at higher risk for contracting tuberculosis because of decreased immunocompetence. Other high-risk populations in the United States and Canada include the urban poor, clients with acquired immunodeficiency syndrome, and minority groups.

CN: Safety and infection control; CL: Analyze

62. 2, 4, 5. When teaching the client how to avoid the transmission of tubercle bacilli, it is important for the client to understand that the organism is transmitted by droplet infection. Therefore, covering the mouth and nose when sneezing, using paper tissues to cough in with prompt disposal, and using regular plates and utensils indicate that the client has understood the nurse's instructions about preventing the spread of airborne droplets. It is not essential to discard

clothing, nor does the client need to be isolated from family members.

CN: Health promotion and maintenance; CL: Evaluate

63. 2. A positive Mantoux skin test indicates that the client has been exposed to tubercle bacilli. Exposure does not necessarily mean that active disease exists. A positive Mantoux test does not mean that the client has developed resistance. Unless involved in treatment, the client may still develop active disease at any time. Immunity to tuberculosis is not possible.

CN: Reduction of risk potential; CL: Analyze

64. 2. INH competes for the available vitamin B_6 in the body and leaves the client at risk for development of neuropathies related to vitamin deficiency. Supplemental vitamin B_6 is routinely prescribed. Following a low-cholesterol diet, getting extra rest, and avoiding excessive sun exposure will not prevent the development of peripheral neuropathies.

CN: Pharmacological and parenteral therapies; CL: Synthesize

65. 3. INH interferes with the effectiveness of hormonal contraceptives, and female clients of childbearing age should be counseled to use an alternative form of birth control while taking the drug. INH does not increase the risk of vaginal infection, nor does it affect the ova or ovulation.

CN: Pharmacological and parenteral therapies; CL: Apply

66. 3. Tuberculosis can be controlled but never completely eradicated from the body. Periods of intense physical or emotional stress increase the likelihood of recurrence. Clients should be taught to recognize the signs and symptoms of a potential recurrence. Weather and activity levels are not related to recurrences of tuberculosis.

CN: Physiological adaptation; CL: Analyze

67. 2. Statistics show that of the four geographic areas described, most cases of tuberculosis are found in inner-core residential areas of large cities, where health and sanitation standards tend to be low. Substandard housing, poverty, and crowded living conditions also generally characterize these city areas and contribute to the spread of the disease. Farming areas have a low incidence of tuberculosis. Variations in water standards and industrial pollution are not correlated to tuberculosis incidence.

CN: Safety and infection control; CL: Analyze

68. 4. Isoniazid and rifampin (Rifamate) is a hepatotoxic drug. The client should be warned to limit intake of alcohol during drug therapy. The drug should

be taken on an empty stomach. If antacids are needed for gastrointestinal distress, they should be taken 1 hour before or 2 hours after the drug is administered. The client should not double the dose of the drug because of potential toxicity. The client taking the drug should avoid foods that are rich in tyramine, such as cheese and dairy products, or he may develop hypertension.

CN: Pharmacological and parenteral therapies; CL: Create

69. 2, 4, 5. A potential adverse effect of rifampin (Rifadin) is hepatotoxicity. Clients should be instructed to avoid alcohol intake while taking rifampin and keep follow-up appointments for periodic monitoring of liver enzyme levels to detect liver toxicity. Rifampin causes the urine to turn an orange color and the client should understand that this is normal. It is not necessary to restrict protein intake in the diet or have the eyes examined due to rifampin therapy.

CN: Pharmacological and parenteral therapies; CL: Create

70. 1. Directly observed therapy (DOT) can be implemented with clients who are not compliant with drug therapy. In DOT, a responsible person, who may be a family member or a health care provider, observes the client taking the medication. Visiting the client, changing the prescription, or threatening the client will not ensure compliance if the client will not or cannot follow the prescribed treatment.

CN: Safety and infection control; CL: Synthesize

The Client with Chronic Obstructive Pulmonary Disease

71.

2. “Relax your neck and shoulder muscles.”

1. “Breathe in normally through your nose for two counts (while counting to yourself, one, two).”

3. “Pucker your lips as if you were going to whistle.”

4. “Breathe out slowly through pursed lips for four counts (while counting to yourself, one, two, three, four).”

The nurse should first instruct the client to relax the neck and the shoulders and then take several normal breaths. After taking a breath in, the client should pucker the lips, and finally breathe out through pursed lips.

CN: Health promotion and maintenance; CL: Apply

72. 2. Clients with chronic COPD have CO_2 retention and the respiratory drive is stimulated when the PO_2 decreases. The heart rate, respiratory rate, and blood pressure should be evaluated to determine if the client is hemodynamically stable. Symptoms, such as dyspnea, should also be assessed. Oxygen supplementation, if indicated, should be titrated upward in small increments. There is no indication that the client is experiencing respiratory distress requiring intubation.

CN: Physiological adaptation; CL: Synthesize

73. 1. A client with COPD is at high risk for development of respiratory infections. COPD is slowly progressive; therefore, maintaining current status and establishing a goal that the client will require less supplemental oxygen are unrealistic expectations. Treatment may slow progression of the disease, but permanent improvement is highly unlikely.

CN: Management of care; CL: Synthesize

74. 1, 2, 3, 4. The therapeutic range for serum theophylline is 10 to 20 mcg/mL (55.5 to 111 μmol/L). At higher levels, the client will experience signs of toxicity such as nausea, vomiting, seizure, and insomnia. The nurse should instruct the client to report these signs and to keep appointments to have theophylline blood levels monitored. If the theophylline level is below the therapeutic range, the client may be at risk for more frequent exacerbations of the disease.

CN: Physiological Integrity; CL: Apply

75. 4. Increasing dyspnea on exertion indicates that the client may be experiencing complications of COPD. Therefore, the nurse should notify the physician. Extracting promises from clients is not an outcome criterion. Pain is not a common symptom of COPD. Clients with COPD use low-flow oxygen supplementation (1 to 2 L/min) to avoid suppressing the respiratory drive, which, for these clients, is stimulated by hypoxia.

CN: Basic care and comfort; CL: Evaluate

76. 1. Increased anteroposterior chest diameter is characteristic of advanced COPD. Air is trapped in the overextended alveoli, and the ribs are fixed in an

inspiratory position. The result is the typical barrel-chested appearance. Overly developed, not underdeveloped, neck muscles are associated with COPD because of their increased use in the work of breathing. Distended, not collapsed, neck veins are associated with COPD as a symptom of the heart failure that the client may experience secondary to the increased workload on the heart to pump blood into the pulmonary vasculature. Diminished, not increased, chest excursion is associated with COPD.

 CN: Physiological adaptation; CL: Analyze

77. 4. Cigarette smoking is the primary cause of COPD. Other risk factors include exposure to environmental pollutants and chronic asthma. Participating in an aerobic exercise program, although beneficial, will not decrease the risk of COPD. Insufficient protein intake and exposure to people with respiratory infections do not increase the risk of COPD.

 CN: Health promotion and maintenance; CL: Synthesize

78. 4. Pursed-lip breathing prolongs exhalation and prevents air trapping in the alveoli, thereby promoting carbon dioxide elimination. By prolonging exhalation and helping the client relax, pursed-lip breathing helps the client learn to control the rate and depth of respiration. Pursed-lip breathing does not promote the intake of oxygen, strengthen the diaphragm, or strengthen intercostal muscles.

 CN: Physiological adaptation; CL: Evaluate

79. 1. A priority goal for the client with COPD is to manage the signs and symptoms of the disease process so as to maintain the client's functional ability. Chest pain is not a typical symptom of COPD. The carbon dioxide concentration in the blood is increased to an abnormal level in clients with COPD; it would not be a goal to increase the level further. Preventing infection would be a goal of care for the client with COPD.

 CN: Basic care and comfort; CL: Synthesize

80. 2. The high $PaCO_2$ level causes flushing due to vasodilation. The client also becomes drowsy and lethargic because carbon dioxide has a depressant effect on the central nervous system. Cyanosis is a sign of hypoxia. Irritability and anxiety are not common with a $PaCO_2$ level of 65 mm Hg but are associated with hypoxia.

 CN: Reduction of risk potential; CL: Analyze

81. 2. Exhaling requires less energy than inhaling. Therefore, lifting while

exhaling saves energy and reduces perceived dyspnea. Pursing the lips prolongs exhalation and provides the client with more control over breathing. Lifting after exhaling but before inhaling is similar to lifting with the breath held. This should not be recommended because it is similar to the Valsalva maneuver, which can stimulate cardiac arrhythmias.

 CN: Basic care and comfort; CL: Synthesize

82. 3. Right-sided heart failure is a complication of COPD that occurs because of pulmonary hypertension. Signs and symptoms of right-sided heart failure include peripheral edema, jugular venous distention, hepatomegaly, and weight gain due to increased fluid volume. Clubbing of nail beds is associated with conditions of chronic hypoxemia. Hypertension is associated with left-sided heart failure. Clients with heart failure have decreased appetites.

 CN: Physiological adaptation; CL: Synthesize

83. 4. Exacerbations of COPD are commonly caused by respiratory infections. Coarse crackles and rhonchi would be auscultated as air moves through airways obstructed with secretions. In COPD, breath sounds are diminished because of an enlarged anteroposterior diameter of the chest. Expiration, not inspiration, becomes prolonged. Chest movement is decreased as lungs become overdistended.

 CN: Physiological adaptation; CL: Analyze

84. 2. Clients who have a long history of COPD may retain carbon dioxide (CO_2). Gradually the body adjusts to the higher CO_2 concentration, and the high levels of CO_2 no longer stimulate the respiratory center. The major respiratory stimulant then becomes hypoxemia. Administration of high concentrations of oxygen eliminates this respiratory stimulus and leads to hypoventilation. Oxygen can be drying if it is not humidified, but it does not cause coughing and dyspnea. Increased oxygen use will not create an oxygen dependency; clients should receive oxygen as needed. Oxygen is not contraindicated with the use of bronchodilators.

 CN: Physiological adaptation; CL: Apply

85. 4. The client should eat high-calorie, high-protein meals to maintain nutritional status and prevent weight loss that results from the increased work of breathing. The client should be encouraged to eat small, frequent meals. A low-fat, low-cholesterol diet is indicated for clients with coronary artery disease. The client with COPD does not necessarily need to follow a sodium-restricted diet, unless otherwise medically indicated. There is no need for the client to eat bland,

soft foods.

CN: Basic care and comfort; CL: Synthesize

86. 3. Theophylline is a bronchodilator that is administered to relax airways and decrease dyspnea. Theophylline is not used to treat infections and does not decrease or thin secretions.

CN: Pharmacological and parenteral therapies; CL: Evaluate

87. 1. The goal of effective coughing is to conserve energy, facilitate removal of secretions, and minimize airway collapse. The client should assume a sitting position with feet on the floor if possible. The client should bend forward slightly and, using pursed-lip breathing, exhale. After resuming an upright position, the client should use abdominal breathing to slowly and deeply inhale. After repeating this process three or four times, the client should take a deep abdominal breath, bend forward, and cough three or four times upon exhalation ("huff" cough). Lying flat does not enhance lung expansion; sitting upright promotes full expansion of the thorax. Shallow breathing does not facilitate removal of secretions, and forceful coughing promotes collapse of airways. A side-lying position does not allow for adequate chest expansion to promote deep breathing.

CN: Basic care and comfort; CL: Create

The Client with Asthma

88. 1, 2, 3, 4, 5. Utilization of an MDI requires coordination between activation and inspiration; deep breaths to ensure that medication is distributed into the lungs, holding the breath for 10 seconds or as long as possible to disperse the medication into the lungs, shaking up the medication in the MDI before use, and a sufficient amount of time between puffs to provide an adequate amount of inhalation medication.

CN: Pharmacological and parenteral therapies; CL: Evaluate

89. 4. In an acute asthma attack, diminished or absent breath sounds can be an ominous sign indicating lack of air movement in the lungs and impending respiratory failure. The client requires immediate intervention with inhaled bronchodilators, IV corticosteroids, and, possibly, IV theophylline. Administering oxygen and reassessing the client 10 minutes later would delay needed medical intervention, as would drawing blood for an arterial blood gas analysis. It would be futile to encourage the client to relax and breathe slowly without providing the necessary pharmacologic intervention.

CN: Management of care; CL: Synthesize

90. 1. The arterial blood gas reveals a respiratory acidosis with hypoxia. A quick-acting bronchodilator, albuterol, should be administered via nebulizer to improve gas exchange. Ipratropium is a maintenance treatment for bronchospasm that can be used with albuterol. A chest x-ray and sputum sample can be obtained once the client is stable.

CN: Physiological adaptation; CL: Synthesize

91. 3. Corticosteroids have an anti-inflammatory effect and act to decrease edema in the bronchial airways and decrease mucus secretion. Corticosteroids do not have a bronchodilator effect, act as expectorants, or prevent respiratory infections.

CN: Pharmacological and parenteral therapies; CL: Evaluate

92. 1, 4. The client should shake the inhaler and hold it upright when administering the drug. The head should be tilted back slightly. The client should wait about 1 to 2 minutes between puffs. The mouth should be rinsed following the use of a corticosteroid MDI to decrease the likelihood of developing an oral infection. The client does not need to lie supine; instead, the client will likely to be able to breathe more freely if sitting upright.

CN: Pharmacological and parenteral therapies; CL: Evaluate

93. 1. Irregular heartbeats should be reported promptly to the care provider. Metaproterenol may cause irregular heartbeat, tachycardia, or anginal pain because of its adrenergic effect on beta-adrenergic receptors in the heart. It is not recommended for use in clients with known cardiac disorders. Metaproterenol does not cause constipation, pedal edema, or bradycardia.

CN: Pharmacological and parenteral therapies; CL: Analyze

94. 3. Use of oral inhalant corticosteroids such as flunisolide can lead to the development of oral thrush, a fungal infection. Once developed, thrush must be treated by antifungal therapy; it will not resolve on its own. Fungal infections can develop even without overuse of the corticosteroid inhaler. Although good oral hygiene can help prevent development of a fungal infection, it cannot be used alone to treat the problem.

CN: Pharmacological and parenteral therapies; CL: Synthesize

95.

1. Shake the inhaler immediately before use.

4. Breathe out through the mouth.

3. Activate the MDI on inhalation.

2. Hold breath for 5 to 10 seconds and then exhale.

When using inhalers, clients should first shake the inhaler to activate the MDI, and then breathe out through the mouth. Next, the client should activate the MDI while inhaling, hold the breath for 5 to 10 seconds, and then exhale normally.

 CN: Pharmacological and parenteral therapies; CL: Apply

96. 4. Between attacks, breath sounds should be clear on auscultation with good air flow present throughout lung fields. Chest x-rays should be normal. The client should remain afebrile. Arterial blood gases should be normal.

 CN: Physiological adaptation; CL: Evaluate

97. 1. Physical exercise is beneficial and should be incorporated as tolerated into the client's schedule. Peak flow numbers should be monitored daily, usually in the morning (before taking medication). Peak flow does not need to be monitored after each meal. Stressors in the client's life should be modified but cannot be totally eliminated. Although adequate sleep is important, it is not recommended that sedatives be routinely taken to induce sleep.

 CN: Reduction of risk potential; CL: Create

98. 2. The most common precipitator of asthma attacks is viral respiratory infection. Clients with asthma should avoid people who have the flu or a cold and should get yearly flu vaccinations. Environmental exposure to toxins or heavy particulate matter can trigger asthma attacks; however, far fewer asthmatics are exposed to such toxins than are exposed to viruses. Cigarette smoke can also trigger asthma attacks, but to a lesser extent than viral respiratory infections. Some asthmatic attacks are triggered by exercising in cold weather.

 CN: Reduction of risk potential; CL: Synthesize

99. 1. A cough productive of yellow sputum is the most likely indicator of a respiratory infection. The other signs and symptoms—wheezing, chest tightness, and increased respiratory rate—are all findings associated with an asthma attack and do not necessarily mean an infection is present.

CN: Physiological adaptation; CL: Analyze

100.

2. “Take off the cap and shake the inhaler.”
6. “Attach the spacer.”
4. “Breathe out all of your air. Hold the mouthpiece of your inhaler and spacer between your teeth with your lips closed around it.”
5. “Press down on the inhaler once and breathe in *slowly*.”
1. “Hold your breath for at least 10 seconds, then breathe in and out slowly.”
3. “Rinse your mouth.”

Using a spacer, especially with an inhaled corticosteroid, can make it easier for the medication to reach the lungs; it can also prevent excess medication remaining in the mouth and throat where it can lead to minor irritation. It is important for the client to empty the lungs, breathe in slowly, and hold breath in order to draw as much medication into the lungs as possible. Rinsing after using a corticosteroid inhaler may help prevent irritation and infection; rinsing will also reduce the amount of drug swallowed and absorbed systemically.

CN: Health promotion and maintenance; CL: Apply

101. 3. The hallmark signs of asthma are chest tightness, audible wheezing, and coughing. Inspiratory and expiratory wheezing is the result of bronchoconstriction. Even between exacerbations there may be some soft wheezing, so a finding of normal breath sounds would be expected in the absence of asthma. The expected finding is decreased forced expiratory volume [Forced Expiratory Flow (FEF) is the flow (or speed) of air coming out of the lung during the middle portion of a forced expiration] due to bronchial constriction. Morning headaches are found in more advanced cases of COPD signal nocturnal hypercapnia or hypoxemia.

CN: Physiological adaptation; CL: Analyze

The Client with Lung Cancer

102. 1. The nurse should first assess for bilateral breath sounds since a complication of central line insertion is a pneumothorax, which would cause an increase in respiratory rate and drop in oxygen, causing irritability. The nurse should also assess blood pressure and heart rate for the complication of bleeding. A chest x-ray will be performed to determine correct placement and complications. A central line was most likely placed because peripheral IV access was not available or adequate for the client. Repositioning may be considered after assessments are done.

 CN: Physiological adaptation; CL: Synthesize

103. 2. The nurse should review the CBC with differential to evaluate the client's hemoglobin and hematocrit, which are abnormal and should be reported to the health care provider. Anemia leads to decreased oxygen-carrying capacity of the blood. A client unable to compensate for the anemia may experience a profound sense of dyspnea. There has been a significant drop in the Hgb and Hct since the previous report, and these should be reported to the physician. A_1C is a laboratory test evaluating glycosylated hemoglobin and is in the normal range. This test is used to diagnose diabetes and/or monitor diabetic glucose control over time. Blood culture is obtained to assess infection in the blood. PT is a coagulation study reflecting liver function and clotting time and is in the normal range.

 CN: Physiological adaptation; CL: Synthesize

104. 1. Risk factors for postoperative pulmonary complications include malnourishment, which is indicated by this client's height and weight. It is thought that emotional responses can affect overall health; however, not verbalizing one's feelings is not a contributing factor in postoperative pulmonary complications. The client's current activity level and age do not place her at increased risk for complications.

 CN: Physiological adaptation; CL: Analyze

105. 1. Acknowledging the basic feeling the client expresses—fear—and asking an open-ended question allows the client to explain any fears. The other options dismiss the client's feelings and may give false reassurance or label the client's feelings. The client should be encouraged to explore feelings about a cancer diagnosis.

 CN: Psychosocial adaptation; CL: Synthesize

106. 4. Systematic pain assessment is necessary for adequate pain management in the postoperative client. Guidelines from a variety of health care agencies and nursing groups recommend that institutions adopt a pain assessment scale to assist in facilitating pain management. Even though the client is receiving morphine sulfate by PCA, assessment is needed if she is experiencing pain. The concern is not to eliminate coughing but to control pain adequately. Coughing is necessary to prevent postoperative atelectasis and pneumonia. Breathing exercises may help control pain in some circumstances; however, most clients with thoracic surgery require parenteral opioid analgesics in the early postoperative period. Although it is necessary that the PCA device be checked periodically to ensure that it is functioning properly, if the machine is functional and the client's pain is not relieved, further intervention, beginning with a pain assessment, is indicated.

 CN: Basic care and comfort; CL: Synthesize

107. 1. Because clients are discharged as soon as possible from the hospital, it is essential to evaluate the support they have to assist them with self-care at home. The distance the client lives from the hospital is not a critical factor in discharge planning. There are no data indicating that home blood pressure monitoring is needed. Knowledge of the causes of lung cancer, although important, is not the most essential area to evaluate given the client's postoperative status.

 CN: Psychosocial adaptation; CL: Synthesize

108. 2. Epidermoid cancer involving the larger bronchi is almost entirely associated with heavy cigarette smoking. The American and Canadian Cancer Societies report that smoking is responsible for more than 80% of lung cancers in men and women. The prevalence of lung cancer is related to the duration and intensity of the smoking, so nurses can best prevent lung cancer by persuading clients to stop smoking. Chest radiographs aid in detection of lung cancer; they do not prevent it. Exposure to asbestos has been implicated as a risk factor for lung cancer, but cigarette smoking is the major risk factor. There are no data to support the use of home air filters in the prevention of lung cancer.

 CN: Health promotion and maintenance; CL: Synthesize

109. 4. Deep breathing helps prevent microatelectasis and pneumonitis and also helps force air and fluid out of the pleural space into the chest tubes. More than half of the ventilatory process is accomplished by the rise and fall of the diaphragm. The diaphragm is the major muscle of respiration; deep breathing causes it to descend, not elevate, thereby increasing the ventilating surface. Deep

breathing increases blood flow to the lungs; however, the primary reason for deep breathing is to expand alveoli and prevent atelectasis. The remaining lobe naturally hyperinflates to fill the space created by the resected lobe. This is an expected phenomenon.

 CN: Physiological adaptation; CL: Evaluate

110. 2. It is essential that the nurse evaluate the effects of pain medication after the medication has had time to act; reassessment is necessary to determine the effectiveness of the pain management plan. Although it is prudent to check for discomfort related to positioning when assessing the client's pain, repositioning the client immediately after administering pain medication is not necessary. Verbally reassuring the client after administering pain medication may be useful to help instill confidence in the treatment plan; however, it is not as important as evaluating the effectiveness of the medication. Readjusting the pain medication dosage as needed according to the client's condition is essential, but the effectiveness of the medication must be evaluated first.

 CN: Physiological adaptation; CL: Synthesize

111. 3. This crackling sensation is subcutaneous emphysema. Subcutaneous emphysema is not an unusual finding and is not dangerous if confined, and the nurse should mark the area to detect if the area is expanding. Progression can be serious, especially if the neck is involved; a tracheotomy may be needed at that point. If emphysema progresses noticeably in 1 hour, the physician should be notified. Lowering the head of the bed will not arrest the progress or provide any further information. A tracheotomy tray would be useful if subcutaneous emphysema progresses to the neck. Subcutaneous emphysema may progress if the chest drainage system does not adequately remove air and fluid; therefore, the system should not be turned off.

 CN: Physiological adaptation; CL: Synthesize

112. 1. The recommended procedure for teaching clients postoperatively to deep breathe includes contracting (pulling in) the abdominal muscles and taking a slow, deep breath through the nose. This breath is held 3 to 5 seconds, which facilitates alveolar ventilation by improving the inspiratory phase of ventilation. Exhaling slowly as if trying to blow out a candle is a technique used in pursed-lip breathing to facilitate exhalation in clients with chronic obstructive pulmonary disease. It is recommended that the abdominal muscles be contracted, not relaxed, to promote deep breathing. The client should breathe through the nose.

 CN: Physiological adaptation; CL: Synthesize

113. 3. A client who has undergone chest surgery should be taught to raise the arm on the affected side over the head to help prevent shoulder ankylosis. This exercise helps restore normal shoulder movement, prevents stiffening of the shoulder joint, and improves muscle tone and power. Turning from side to side, raising and lowering the head, and flexing and extending the elbow on the affected side do not exercise the shoulder joint.

 CN: Basic care and comfort; CL: Synthesize

114. 4. The drainage apparatus is always kept below the client's chest level to prevent back flow of fluid into the pleural space. The air vent must always be open in the closed chest drainage system to allow air from the client to escape. Stripping a chest tube causes excessive negative intrapleural pressure and is not recommended. Clamping a chest tube when moving a client is not recommended.

 CN: Physiological adaptation; CL: Synthesize

115. 1. Cessation of fluid fluctuation in the tubing can mean one of several things: the lung has fully expanded and negative intrapleural pressure has been re-established; the chest tube is occluded; or the chest tube is not in the pleural space. Fluid fluctuation occurs because, during inspiration, intrapleural pressure exceeds the negative pressure generated in the water-seal system. Therefore, drainage moves toward the client. During expiration, the pleural pressure exceeds that generated in the water-seal system, and fluid moves away from the client. When the lung is collapsed or the chest tube is in the pleural space, fluid fluctuation is likely to be noted. The chest tube is not inserted in the mediastinal space.

 CN: Physiological adaptation; CL: Analyze

116. 2. There should never be constant bubbling in the water-seal bottle; normally, the bubbling is intermittent. Constant bubbling in the water-seal bottle indicates an air leak, which means that less negative pressure is being exerted on the pleural space. Decreasing the suction or draining part of the water in the water-seal chamber will not reduce the leak.

 CN: Physiological adaptation; CL: Synthesize

117. 1. In this case, there may be some obstruction to the flow of air and fluid out of the pleural space, causing air and fluid to collect and build up pressure. This prevents the remaining lung from re-expanding and can cause a mediastinal shift to the opposite side. The nurse's first response is to assess the tubing for kinks or obstruction. Increasing the suction is not done without a

physician's prescription. The normal position of the drainage bottles is 2 to 3 feet (61 to 91.4 cm) below chest level. Clamping the tubes obstructs the flow of air and fluid out of the pleural space and should not be done.

CN: Physiological adaptation; CL: Synthesize

118. 4. To promote chest tube drainage, the drainage system must be lower than the client's lungs. The amount of drainage is not abnormal; it is not necessary to notify the physician. The nurse should chart the amount and color of drainage every 4 to 8 hours. The chest tube does not need to be clamped; the tubing connection is intact. There is sufficient water to maintain a water seal.

CN: Physiological adaptation; CL: Synthesize

119. 3. A bottle of sterile water should be readily available and in view when a client has a chest tube so that the tube can be immediately submersed in the water if the chest tube system becomes disconnected. The chest tube should be reconnected to the water-seal system as soon as a sterile functioning system can be re-established. There is no need for a tracheostomy tray, another chest tube, or a spirometer to be placed at the bedside for emergency use.

CN: Physiological adaptation; CL: Apply

120. 2. Gauze saturated with petroleum is placed over the site to make an airtight seal to prevent air leakage during the healing process. Dressings with antibiotic ointment or adhesives are not used.

CN: Management of care; CL: Apply

The Client with Chest Trauma

121. 3. Respiratory distress or arrest is a universal finding of a tension pneumothorax. Unilateral, diminished, or absent breath sounds is a common finding. Tracheal deviation is an inconsistent and late finding. Muffled heart sounds are suggestive of pericardial tamponade.

CN: Physiological adaptation; CL: Analyze

122. 0.7 mL

$$10\,\text{mg} : X\,\text{mL} = 15\,\text{mg} : 1\,\text{mL}$$
$$15\,\text{mg} \times X\,\text{mL} = 10\,\text{mg} \times 1\,\text{mL}$$
$$15X = 10$$
$$X = 0.6667$$
$$X = 0.67\,\text{mL}$$

CN: Pharmacological and parenteral therapies; CL: Apply

123. 2. Blunt chest trauma may lead to respiratory failure, and maintenance

of adequate oxygenation is the priority for the client. Decreasing the client's anxiety is related to maintaining effective respirations and oxygenation. Although pain is distressing to the client and can increase anxiety and decrease respiratory effectiveness, pain control is secondary to maintaining oxygenation. Maintaining adequate circulatory volume is also secondary to maintaining adequate oxygenation.

CN: Physiological adaptation; CL: Synthesize

124. 3. Fluctuation of fluid in the water-seal column with respirations indicates that the system is functioning properly. If an obstruction were present in the chest tube, fluid fluctuation would be absent. Subcutaneous emphysema occurs when air pockets can be palpated beneath the client's skin around the chest tube insertion site. A leak in the system is indicated when continuous bubbling occurs in the water-seal column.

CN: Physiological adaptation; CL: Analyze

125. 2. Continuous bubbling in the water-seal chamber indicates a leak in the system, and the client needs to be instructed to notify the physician if continuous bubbling occurs. A respiratory rate of more than 16 breaths/min may not be unusual and does not necessarily mean that the client should notify the physician. Fluid in the chest tube is expected, as is fluctuation of the fluid in the water-seal chamber.

CN: Physiological adaptation; CL: Synthesize

126. 4. Pneumothorax means that the lung has collapsed and is not functioning. The nurse will hear no sounds of air movement on auscultation. Movement of air through mucus produces crackles. Wheezing occurs when airways become obstructed. Dullness on percussion indicates increased density of lung tissue, usually caused by accumulation of fluid.

CN: Physiological adaptation; CL: Evaluate

127. 1. If the client reports no pain, then the objective of adequate pain relief has been met. Decreased anxiety is not related only to pain control; it could also be related to other factors. A respiratory rate of 26 breaths/min is not within normal limits, nor is the PaO_2 of 70 mm Hg (9.31 kPa), but these values are not measures of pain relief.

CN: Physiological adaptation; CL: Evaluate

128. 2. One unit of packed red blood cells is about 250 mL. If the blood is delivered at a rate of 60 mL/h, it will take about 4 hours to infuse the entire unit. The transfusion of a single unit of packed red blood cells should not exceed 4

hours to prevent the growth of bacteria and minimize the risk of septicemia.

CN: Pharmacological and parenteral therapies; CL: Apply

129. 2. Too-rapid infusion of blood, or any intravenous fluid, can cause fluid volume overload and related problems such as pulmonary edema. Emboli formation, red blood cell hemolysis, and allergic reaction are not related to rapid infusion.

CN: Pharmacological and parenteral therapies; CL: Apply

130. 1. Pneumothorax signs and symptoms include sudden, sharp chest pain; tachypnea; and tachycardia. Other signs and symptoms include diminished or absent breath sounds over the affected lung, anxiety, and restlessness. Breath sounds are diminished or absent over the affected side. Hemoptysis and cyanosis are not typically present with a moderate pneumothorax.

CN: Physiological adaptation; CL: Analyze

131. 4. A chest tube is inserted to re-expand the lung and remove air and fluid. Oxygen is not administered through a chest tube. Chest tubes are not inserted to promote scar tissue formation. Antibiotics are not used to treat a pneumothorax.

CN: Basic care and comfort; CL: Evaluate

132. Correct answer:
The fluid typically localizes at the base of the thorax.

CN: Management of care; CL: Synthesize

133. 1, 2, 3, 4. Following a thoracentesis, the nurse should assess the client for possible complications of the procedure such as pneumothorax, tension pneumothorax, and subcutaneous emphysema, which can occur because of the needle entering the chest cavity. Pulmonary edema could occur if a large volume was aspirated causing a significant mediastinal shift. Although infection is a possible complication, signs of infection will not be evident immediately after the procedure.

CN: Management of care; CL: Synthesize

134. 1. Cheyne-Stokes respiration is defined as a regular cycle that starts with normal breaths, which increase and then decrease followed by a period of apnea. It can be related to heart failure or a dysfunction of the respiratory center of the brain. Hyperventilation is the increased rate and depth of respirations. Obstructive sleep apnea is recurring episodes of upper airway obstruction and reduced ventilation. Bior's respiration, also known as “cluster breathing,” is periods of normal respirations followed by varying periods of apnea.

CN: Health promotion and maintenance; CL: Analyze

The Client with Acute Respiratory Distress Syndrome

135. 3, 4, 5. The prone position is used to improve oxygenation, ventilation, and perfusion. The importance of placing clients with ARDS in prone positioning should be explained to the family. The positioning allows for mobilization of secretions and the nurse can provide suctioning. Clinical judgment must be used to determine the length of time in the prone position. If the client's hemodynamic status, oxygenation, or skin is compromised, the client should be returned to the supine position for evaluation. Facial edema is expected with the prone position, but the skin breakdown is of concern.

CN: Physiological adaptation; CL: Synthesize

136. 4. Prone positioning is used to improve oxygenation in clients with ARDS who are receiving mechanical ventilation. The positioning allows for recruitment of collapsed alveolar units, improvement in ventilation, reduction in shunting, mobilization of secretions, and improvement in functional reserve capacity (FRC). When the client is supine, side-to-side repositioning should be done every 2 hours with the head of the bed elevated at least 30 degrees.

CN: Physiological adaptation; CL: Synthesize

137. 1, 4, 5. Acute respiratory distress syndrome (ARDS) may cause renal failure and superinfection, so the nurse should monitor urine output and urine chemistries. Treatment of hypoxemia can be complicated because changes in lung tissue leave less pulmonary tissue available for gas exchange, thereby causing inadequate perfusion. Humidified oxygen may be one means of promoting oxygenation. The client has crackles in the lung bases, so the nurse should continue to assess breath sounds. Sedatives should be used with caution in clients with ARDS. The nurse should try other measures to relieve the client's restlessness and anxiety. The head of the bed should be elevated to 30 degrees to promote chest expansion and prevent atelectasis.

 CN: Management of care; CL: Create

138. 4. One of the major risk factors for development of ARDS is hypovolemic shock. Adequate fluid replacement is essential to minimize the risk of ARDS in these clients. Teaching smoking cessation does not prevent ARDS. An abnormal serum potassium level and hypercapnia are not risk factors for ARDS.

 CN: Physiological adaptation; CL: Synthesize

139. 2. A hallmark of early ARDS is refractory hypoxemia. The client's PaO_2 level continues to fall, despite higher concentrations of administered oxygen. Elevated carbon dioxide and metabolic acidosis occur late in the disorder. Severe electrolyte imbalances are not indicators of ARDS.

 CN: Physiological adaptation; CL: Analyze

140. 2. The normal range for $PaCO_2$ is 35 to 45 mm Hg (4.7 to 6 kPa). Thus, this client's $PaCO_2$ level is low. The client is experiencing respiratory alkalosis (carbonic acid deficit) due to hyperventilation. The nurse should report this finding to the physician because it requires intervention. The increase in ventilation decreases the $PaCO_2$ level, which leads to decreased carbonic acid and alkalosis. The bicarbonate level is normal in uncompensated respiratory alkalosis along with the normal PaO_2 level. Normal serum pH is 7.35 to 7.45; in uncompensated respiratory alkalosis, the serum pH is greater than 7.45.

 CN: Reduction of risk potential; CL: Analyze

141. 1. The client may be fighting the ventilator breaths. Sedation is indicated to improve compliance with the ventilator in an attempt to lower peak inspiratory pressures. The workload of breathing does indicate the need for increased protein calories; however, this will not correct the respiratory problems with high pressures and respiratory rate. There is no indication that the client is

experiencing pain. Increasing the rate on the ventilator is not indicated with the client's increased spontaneous rate.

CN: Physiological adaptation; CL: Synthesize

142. 1. Manifestations of adult respiratory distress syndrome (ARDS) secondary to acute pancreatitis include respiratory distress, tachypnea, dyspnea, fever, dry cough, fine crackles heard throughout lung fields, possible confusion and agitation, and hypoxemia with arterial oxygen level below 50 mm Hg. The nurse should report the arterial oxygen level of 46 mm Hg to the health care provider. A respiratory rate of 12 is normal and not considered a sign of respiratory distress. Adventitious lung sounds, such as crackles, are typically found in clients with ARDS. Oxygen saturation of 96% is satisfactory and does not represent hypoxemia or low arterial oxygen saturation.

CN: Physiologic adaptation; CL: Synthesize

143. 1. Normal PaO_2 level ranges from 80 to 100 mm Hg (10.6 to 13.3 kPa). When PaO_2 falls to 50 mm Hg (6.7 kPa), the nurse should be alert for signs of hypoxia and impending respiratory failure. An oxygen level this low poses a severe risk for respiratory failure. The client will require oxygenation at a concentration that maintains the PaO_2 at 55 to 60 mm Hg (7.3 to 8 kPa) or more.

CN: Physiological adaptation; CL: Analyze

144. 4. A $PaCO_2$ of 28 mm Hg (3.7 kPa) and PaO_2 of 50 mm Hg (6.7 kPa) are both abnormal; the PaO_2 of 50 mm Hg (6.7 kPa) signifies acute respiratory failure. In evaluating possible causes for this disorder, the nurse should consider conditions that lead to hypoxia and hyperventilation, such as pulmonary embolus. COPD is typically associated with respiratory acidosis and elevated $PaCO_2$. The client with diabetic ketoacidosis most often has metabolic acidosis. A myocardial infarction does not often cause an acid-base imbalance because the primary problem is cardiac in origin.

CN: Physiological adaptation; CL: Analyze

145. 3. Endotracheal intubation and mechanical ventilation are required in ARDS to maintain adequate respiratory support. Endotracheal intubation, not a tracheostomy, is usually the initial method of maintaining an airway. The client requires mechanical ventilation; nasal oxygen will not provide adequate oxygenation. Chest tubes are used to remove air or fluid from intrapleural spaces.

CN: Physiological adaptation; CL: Apply

146. 1. The two risk factors most commonly associated with the development of ARDS are gram-negative septic shock and gastric content aspiration. Nurses should be particularly vigilant in assessing a client for onset of ARDS if the client has experienced direct lung trauma or a systemic inflammatory response syndrome (which can be caused by any physiologic insult that leads to widespread inflammation). Chronic obstructive pulmonary disease, asthma, and heart failure are not direct causes of ARDS.

 CN: Reduction of risk potential; CL: Apply

147. 4. Auscultation for bilateral breath sounds is the most appropriate method for determining cuff placement. The nurse should also look for the symmetrical rise and fall of the chest and should note the location of the exit mark on the tube. Assessments of skin color, respiratory rate, and the amount of cuff inflation cannot validate the placement of the endotracheal tube.

 CN: Basic care and comfort; CL: Evaluate

148. 4. The nurse should suction the client if the client is not able to cough up secretions and clear the airway. Administering oxygen will not promote airway clearance. The client should be turned every 2 hours to help move secretions; every 4 hours is not often enough. Administering sedatives is contraindicated in acute respiratory distress because sedatives can depress respirations.

 CN: Physiological adaptation; CL: Synthesize

149. 1. Gastrointestinal hemorrhage occurs in about 25% of clients receiving prolonged mechanical ventilation because of the development of stress ulcers. Clients who are receiving steroid therapy and those with a previous history of ulcers are most likely to be at risk. Other possible complications include incorrect ventilation, oxygen toxicity, fluid imbalance, decreased cardiac output, pneumothorax, infection, and atelectasis.

 CN: Physiological adaptation; CL: Analyze

The Client with Carbon Monoxide Poisoning

150. 3. Carbon monoxide poisoning develops when carbon monoxide combines with hemoglobin. Because carbon monoxide combines more readily with hemoglobin than oxygen does, tissue anoxia results. The nurse should administer 100% oxygen by mask to reduce the half-life of carboxyhemoglobin. Gastric lavage is used for ingested poisons. With tissue anoxia, metabolism is diminished, with a subsequent lowering of the body's temperature; thus, steps to increase body temperature would be required. Unless the carbon monoxide

poisoning is intentional, a psychiatric referral would be inappropriate.

CN: Physiological adaptation; CL: Synthesize

151. 4. Confusion and vertigo are risk factors for falls. Measures must be taken to minimize the risk of injury. The nurse or unlicensed personnel should check on the client regularly to determine needs regarding elimination. Restraints, including bed rails and extremity restraints, should be used only to ensure the person's safety or the safety of others, and there must be a written prescription from a physician before using them. The nurse should never ask the roommate of a client to be responsible for the client's safety.

CN: Safety and infection control; CL: Synthesize

152. 1. In the normal lung, the volume of blood perfusing the lungs each minute is approximately equal to the amount of fresh gas that reaches the alveoli each minute. Blood gas analysis evaluates respiratory function; the level of dissolved oxygen (PaO_2) should be greater than the level of dissolved carbon dioxide ($PaCO_2$).

CN: Physiological adaptation; CL: Evaluate

Managing Care Quality and Safety

153. 4. Airborne precautions prevent transmission of infectious agents that remain infectious over long distances when suspended in the air (eg, mycobacterium tuberculosis, measles, varicella virus [chickenpox], and possibly SARS-CoV). The preferred placement is in an isolation single-client room that is equipped with special air handling and ventilation. A negative pressure room, or an area that exhausts room air directly outside or through HEPA filters, should be used if recirculation is unavoidable. Standard precautions combine the major features of Universal Precautions and Body Substance Isolation and are based on the principle that the blood, body fluids, secretions, and excretions of all clients may contain transmissible infectious agents. Standard precautions include hand hygiene; use of gloves, gown, mask, eye protection, or face shield, depending on the anticipated exposure; and safe injection practices. Contact precautions are for clients with known or suspected infections or evidence of syndromes that represent an increased risk for contact transmission. Droplet precautions are intended to prevent transmission of pathogens spread through close respiratory or mucous membrane contact with respiratory secretions. Because these pathogens do not remain infectious over long distances in a health care facility, special air handling and ventilation are not required to prevent droplet transmission.

CN: Safety and infection control; CL: Synthesize

154. 2, 3, 4, 5. One of the "five rights" of drug administration is "right medication." Cefazolin was not the medication prescribed. The pharmacist is the professional resource and serves as a check to ensure that clients receive the right medication. Returning unwanted medications to the pharmacy will decrease the opportunity for a medication error by the nurse who follows the current nurse.

CN: Safety and infection control; CL: Synthesize

155.

1. A client with an endotracheal tube transferred out of the intensive care unit that day.

3. A client with cellulitis of the left lower extremity with a fever of 100.8°F (38.2°C).

4. A client receiving D5W IV at 125 mL/h with 75 mL remaining.

2. A client with type 2 diabetes who had a cerebrovascular accident 4 days ago.

Because two major complications of endotracheal tube intubation, inadvertent extubation and aspiration, can be catastrophic events, assessment of this client is the first priority. Cellulitis is a serious infection as there is inflammation of subcutaneous tissues; third spacing of fluid may promote the formation of a fluid volume deficit, which can be exacerbated by the fever due to insensible fluid loss. The nurse should assess this client next to determine current vital signs and fluid status. The nurse should assess the client with the IV fluids next because the new bag of fluids will need to be hung in 30 to 40 minutes. IV therapy necessitates that the client be assessed for signs and symptoms of adequate hydration (moist mucous membranes, elastic skin turgor, vital signs within normal limits, adequate urine output, and level of consciousness within normal limits), and the IV access site needs to be assessed. From the information provided, there is no indication that the client who had the cerebrovascular accident is unstable. Thus, this client is the last priority for

assessment.

CN: Management of care; CL: Synthesize

156. 3. Individuals who are household members or home care providers for high-risk individuals are high-priority targeted groups for immunization against influenza to prevent transmission to those who have a decreased capacity to deal with the disease. The wife who is caring for a husband with cancer has the highest priority of the clients described because her husband is likely to be immunocompromised and particularly susceptible to the flu. A healthy 60-year-old man or a healthy 36-year-old woman is not in a high-priority category for influenza vaccination. A 60-year-old woman with osteoarthritis does not have a higher priority for influenza vaccination than a home care provider.

CN: Reduction of risk potential; CL: Analyze

157. 1, 2, 3. The process of changing a health care system from an acute care model to a CCM uses continuous quality improvement (CQI) methods. The goal of the CCM is to improve the health of chronically ill clients. The CCM identifies six basic areas upon which health care organizations need to focus to improve quality of care and delivery: health systems, delivery system design, decision support, clinical information systems, self-management support, and the community. This system requires health care services that are client-centered and coordinated among members of the health care staff and the client and the family. CCM does not focus on the administrative leadership or the care in the acute care setting alone.

CN: Management of care; CL: Synthesize

158. 4. Several factors designate this client as a high fall risk based on the Morse Fall Scale: history of falling (25), secondary diagnosis (15), plus IV access (20). The client's total score is 60. There is also concern that the client's gait is at least weak if not impaired due to hospitalization for pneumonia, which may add to the client's fall risk. After evaluating the client's risk, the nurse must develop a plan and take action to maximize the client's safety.

CN: Safety and infection control; CL: Analyze

159. 1, 2, 3, 4. Gloves, gown, surgical mask, and eye protection/glasses are worn to protect health care workers and to help prevent the spread of infection when clients are placed in droplet isolation. Because droplets are too heavy to be airborne, a respirator is not required when caring for a client in droplet precautions.

CN: Safety and infection control; CL: Apply

160. 3. The nurse has already called for help and established unresponsiveness so the first action is to open the client's airway; opening the airway may result in spontaneous breathing and will help the nurse determine whether or not further intervention is required. Pushing the “code blue” button may not be the appropriate action if the client is breathing and becomes responsive once the airway is open. A quick assessment upon opening the client's airway will help the nurse to determine if the rapid response team is needed. Calling for a defibrillator may not be necessary nor the appropriate action once the client's airway has been opened.

CN: Safety and infection control; CL: Synthesize

161.

2. Assess the client's respiratory status including oxygen saturation.

3. Ensure the client does not need toileting or pain medications.

1. Review the client's medications for interactions that may cause or increase confusion.

4. Contact the physician and request a prescription for soft wrist restraints

The nurse should first assess the client's respiratory status to determine if there is a physiological reason for the client's confusion. Other physiological factors to assess include pain and elimination. Safety needs including medication interactions should then be evaluated. Requesting restraints in order to maintain client safety should be used as a last resort.

CN: Safety and infection control; CL: Synthesize

TEST 5: The Client with Upper Gastrointestinal Tract Health Problems

The Client with Disorders of the Oral Cavity

1. A nurse is caring for a client who has just returned from surgery to treat a fractured mandible. Which of the following items should always be available at this client's bedside? Select all that apply.

☐ **1.** Nasogastric tube.
☐ **2.** Wire cutters.
☐ **3.** Oxygen cannula.
☐ **4.** Suction equipment.
☐ **5.** Code cart.

2. Which of the following interventions is **most** appropriate for a client who has stomatitis?

☐ **1.** Drinking hot tea at frequent intervals.
☐ **2.** Gargling with antiseptic mouthwash.
☐ **3.** Using an electric toothbrush.
☐ **4.** Eating a soft, bland diet.

3. A client who has a history of a mitral valve prolapse is scheduled to get her teeth cleaned. Which of the following replies by the nurse is **most** appropriate?

☐ **1.** “The physician will need to reevaluate the status of your heart condition before your dental appointment.”
☐ **2.** “Be sure to remind your dentist that you have a heart condition.”
☐ **3.** “It is important for you to care for your teeth because your heart condition makes you more susceptible to developing oral infections.”
☐ **4.** “We will prescribe a prophylactic antibiotic for you to take before getting your teeth cleaned.”

Amoxicillin trihydrate (Amoxil) 300 mg PO has been prescribed for a client with an oral infection. The medication is available in a liquid suspension that is available as 250 mg/5 mL. How many milliliters should the nurse administer?

_____ mL.

5. During the assessment of a client's mouth, the nurse notes the absence of saliva. The client reports having pain behind the ear. The client has been

nothing-by-mouth (NPO) for several days, but now can have liquids. Based on these findings, the nurse should do which of the following?

☐ **1.** Request a prescription for an antifungal mouthwash.
☐ **2.** Instruct the client to brush the gums as well as the teeth.
☐ **3.** Encourage the client to suck on hard candy.
☐ **4.** Give the client a hydrogen peroxide–based mouthwash.

6. The nurse is preparing a community presentation on oral cancer. Which of the following is a **primary** risk factor for oral cancer that the nurse should include in the presentation?

☐ **1.** Use of alcohol.
☐ **2.** Frequent use of mouthwash.
☐ **3.** Lack of vitamin B_{12}.
☐ **4.** Lack of regular teeth cleaning by a dentist.

7. A client has entered a smoking cessation program to quit a two-pack-a-day cigarette habit. The client has not smoked a cigarette for 3 weeks, and tells the nurse about fears of starting smoking again because of current job pressures. What would be the **most** appropriate reply for the nurse to make in response to the client's comments?

☐ **1.** “Don't worry about it. Everybody has difficulty quitting smoking, and you should expect to as well.”
☐ **2.** “If you increase your self-control, I am sure you will be able to avoid smoking.”
☐ **3.** “Try taking a couple of days of vacation to relieve the stress of your job.”
☐ **4.** “It is good that you can talk about your concerns. Try calling a friend when you want to smoke.”

8. A client who was in a motor vehicle accident has a fractured mandible. Surgery has been performed to immobilize the injury by wiring the jaw. In the immediate postoperative phase, the nurse should:

☐ **1.** Prevent nausea and vomiting.
☐ **2.** Maintain a patent airway.
☐ **3.** Provide frequent oral hygiene.
☐ **4.** Establish a way for the client to communicate.

9. A client has returned from surgery during which the jaws were wired as treatment for a fractured mandible. The client is in stable condition. The nurse is instructing the unlicensed nursing personnel (UAP) on how to properly position the client. Which instructions about positioning would be appropriate for the nurse to give the UAP?

☐ **1.** Keep the client in a side-lying position with the head slightly elevated.

☐ **2.** Do not reposition the client without the assistance of a registered nurse.
☐ **3.** The client can assume any position that is comfortable.
☐ **4.** Keep the client's head elevated on two pillows at all times.

10. A client who has had the jaws wired begins to vomit. What should be the nurse's **first** action?

☐ **1.** Insert a nasogastric (NG) tube and connect it to suction.
☐ **2.** Use wire cutters to cut the wire.
☐ **3.** Suction the client's airway as needed.
☐ **4.** Administer an antiemetic intravenously.

The Client with Peptic Ulcer Disease

A nurse teaches a client experiencing heartburn to take 1½ oz of Maalox when symptoms appear. How many milliliters should the client take?

_____ mL.

12. The nurse has been assigned to provide care for four clients. In what order should the nurse assess these clients?

1. A client awaiting surgery for a hiatal hernia repair at 11 AM.

2. A client with suspected gastric cancer who is on nothing-by-mouth (NPO) status for tests.

3. A client with peptic ulcer disease experiencing a sudden onset of acute stomach pain.

4. A client who is requesting pain medication 2 days after surgery to repair a fractured jaw.

13. The nurse is caring for a client who has just had an upper GI endoscopy. The client's vital signs must be taken every 30 minutes for 2 hours after the procedure. The nurse assigns an unlicensed nursing personnel (UAP) to take the vital signs. One hour later, the UAP reports the client, who was previously afebrile, has developed a temperature of 101.8°F (38.8°C). What should the nurse do in response to these reported assessment data?

☐ **1.** Promptly assess the client for potential perforation.
☐ **2.** Tell the assistant to change thermometers and retake the temperature.
☐ **3.** Plan to give the client acetaminophen (Tylenol) to lower the temperature.
☐ **4.** Ask the UAP to bathe the client with tepid water.

14. A client is admitted to the hospital after vomiting bright red blood and is diagnosed with a bleeding duodenal ulcer. The client develops a sudden, sharp pain in the midepigastric region along with a rigid, boardlike abdomen. The nurse should do which of the following first?
☐ **1.** Administer pain medication as prescribed.
☐ **2.** Raise the head of the bed.
☐ **3.** Prepare to insert a nasogastric tube
☐ **4.** Notify the physician.

15. When obtaining a nursing history from a client with a suspected gastric ulcer, which signs and symptoms should the nurse assess? Select all that apply.
☐ **1.** Epigastric pain at night.
☐ **2.** Relief of epigastric pain after eating.
☐ **3.** Vomiting.
☐ **4.** Weight loss.
☐ **5.** Melena.

16. The nurse is caring for a client who has had a gastroscopy. Which of the following may indicate that the client is developing a complication related to the procedure? Select all that apply.
☐ **1.** The client has a sore throat.
☐ **2.** The client has a temperature of 100°F (37.8°C).
☐ **3.** The client appears drowsy following the procedure.
☐ **4.** The client has epigastric pain.
☐ **5.** The client experiences hematemesis.

17. A client admitted to the hospital with peptic ulcer disease tells the nurse about having black, tarry stools. The nurse should:
☐ **1.** Encourage the client to increase fluid intake.
☐ **2.** Advise the client to avoid iron-rich foods.
☐ **3.** Place the client on contact precautions.
☐ **4.** Report the finding to the health care provider.

18. A client with peptic ulcer disease is taking ranitidine. What is the expected outcome of this drug?
☐ **1.** Heal the ulcer.
☐ **2.** Protect the ulcer surface from acids.
☐ **3.** Reduce acid concentration.

☐ **4.** Limit gastric acid secretion.

19. A client with a peptic ulcer reports epigastric pain that frequently causes the client to wake up during the night. The nurse should instruct the client to do which activities? Select all that apply.

☐ **1.** Obtain adequate rest to reduce stimulation.
☐ **2.** Eat small, frequent meals throughout the day.
☐ **3.** Take all medications on time as prescribed.
☐ **4.** Sit up for 1 hour when awakened at night.
☐ **5.** Stay away from crowded areas.

20. A client with peptic ulcer disease reports being nauseated most of the day and now feeling light-headed and dizzy. Based upon these findings, which nursing actions would be **most** appropriate for the nurse to take? Select all that apply.

☐ **1.** Administering an antacid hourly until nausea subsides.
☐ **2.** Monitoring the client's vital signs.
☐ **3.** Notifying the physician of the client's symptoms.
☐ **4.** Initiating oxygen therapy.
☐ **5.** Reassessing the client in an hour.

21. The nurse is preparing to teach a client with a peptic ulcer about the diet that should be followed after discharge. The nurse should explain that the client should eat which of the following?

☐ **1.** Bland foods.
☐ **2.** High-protein foods.
☐ **3.** Any foods that are tolerated.
☐ **4.** A glass of milk with each meal.

22. The nurse finds a client who has been diagnosed with a peptic ulcer surrounded by papers from a briefcase and arguing on the telephone with a coworker. The nurse's response to observing these actions should be based on knowledge that:

☐ **1.** Involvement with the job will keep the client from becoming bored.
☐ **2.** A relaxed environment will promote ulcer healing.
☐ **3.** Not keeping up with the job will increase the client's stress level.
☐ **4.** Setting limits on the client's behavior is an important nursing responsibility.

23. A client with a peptic ulcer has been instructed to avoid intense physical activity and stress. Which strategy should the client incorporate into the home care plan?

☐ **1.** Conduct physical activity in the morning in order to be able to rest in the

afternoon.

☐ **2.** Have the family agree to perform the necessary yard work at home.

☐ **3.** Give up jogging and substitute a less demanding hobby.

☐ **4.** Incorporate periods of physical and mental rest in the daily schedule.

24. A client is to take one daily dose of ranitidine (Zantac) at home to treat a peptic ulcer. The client understands proper drug administration of ranitidine when the client will take the drug at which of the following times?

☐ **1.** Before meals.

☐ **2.** With meals.

☐ **3.** At bedtime.

☐ **4.** When pain occurs.

25. A client has been taking aluminum hydroxide 30 mL six times per day at home to treat a peptic ulcer. The client has been unable to have a bowel movement for 3 days. Based on this information, the nurse would determine that which of the following is the **most** likely cause of the client's constipation?

☐ **1.** The client has not been including enough fiber in the diet.

☐ **2.** The client needs to increase the daily exercise.

☐ **3.** The client is experiencing an adverse effect of the aluminum hydroxide.

☐ **4.** The client has developed a gastrointestinal obstruction.

26. A client is taking an antacid for treatment of a peptic ulcer. Which of the following statements best indicates that the client understands how to correctly take the antacid?

☐ **1.** “I should take my antacid before I take my other medications.”

☐ **2.** “I need to decrease my intake of fluids so that I don't dilute the effects of my antacid.”

☐ **3.** “My antacid will be most effective if I take it whenever I experience stomach pains.”

☐ **4.** “It is best for me to take my antacid 1 to 3 hours after meals.”

27. Which of the following would be an expected outcome for a client with peptic ulcer disease? The client will:

☐ **1.** Demonstrate appropriate use of analgesics to control pain.

☐ **2.** Explain the rationale for eliminating alcohol from the diet.

☐ **3.** Verbalize the importance of monitoring hemoglobin and hematocrit every 3 months.

☐ **4.** Eliminate engaging in contact sports.

The Client with Cancer of the Stomach

28. The nurse should assess the client who is being admitted to the hospital with upper GI bleeding for which of the following? Select all that apply.

☐ **1.** Dry, flushed skin.
☐ **2.** Decreased urine output.
☐ **3.** Tachycardia.
☐ **4.** Widening pulse pressure.
☐ **5.** Rapid respirations.
☐ **6.** Thirst.

29. A client with suspected gastric cancer undergoes an endoscopy of the stomach. Which of the following assessments made after the procedure would indicate the development of a potential complication?

☐ **1.** The client has a sore throat.
☐ **2.** The client displays signs of sedation.
☐ **3.** The client experiences a sudden increase in temperature.
☐ **4.** The client demonstrates a lack of appetite.

30. A client has been diagnosed with adenocarcinoma of the stomach and is scheduled to undergo a subtotal gastrectomy (Billroth II procedure). During preoperative teaching, the nurse is reinforcing information about the surgical procedure. Which of the following explanations is **most** accurate?

☐ **1.** The procedure will result in enlargement of the pyloric sphincter.
☐ **2.** The procedure will result in anastomosis of the gastric stump to the jejunum.
☐ **3.** The procedure will result in removal of the duodenum.
☐ **4.** The procedure will result in repositioning of the vagus nerve.

31. Since the diagnosis of stomach cancer, the client has been having trouble sleeping and is frequently preoccupied with thoughts about how life will change. The client says, “I wish my life could stay the same.” Based on this information, the nurse should understand that the client:

☐ **1.** Is having difficulty coping.
☐ **2.** Has a sleep disorder.
☐ **3.** Is grieving.
☐ **4.** Is anxious.

32. After a subtotal gastrectomy, the nasogastric tube drainage will be what color for about 12 to 24 hours after surgery?

☐ **1.** Dark brown.
☐ **2.** Bile green.
☐ **3.** Bright red.
☐ **4.** Cloudy white.

33. A client has a nasogastric (NG) tube following a subtotal gastrectomy. The nurse should:

☐ **1.** Irrigate the tube with 30 mL of sterile water every hour, if needed.
☐ **2.** Reposition the tube if it is not draining well.
☐ **3.** Monitor the client for nausea, vomiting, and abdominal distention.
☐ **4.** Turn the machine to high suction if the drainage is sluggish on low suction.

A client who is recovering from gastric surgery is receiving IV fluids to be infused at 100 mL/h. The IV tubing delivers 15 gtt/mL. The nurse should infuse the solution at a flow rate of how many drops per minute to ensure that the client receives 100 mL/h?

_____ gtt/min.

35. Following a gastrectomy, the nurse should position the client in which of the following positions?

☐ **1.** Prone.
☐ **2.** Supine.
☐ **3.** Low Fowler's.
☐ **4.** Right or left Sims.

36. After a subtotal gastrectomy, the nurse is developing a plan with the client to assist the client to gain weight. To help the client meet nutritional goals at home, the nurse should:

☐ **1.** Instruct the client to increase the amount eaten at each meal.
☐ **2.** Encourage the client to eat smaller amounts more frequently.
☐ **3.** Explain that if vomiting occurs after a meal, nothing more should be eaten that day.
☐ **4.** Inform the client that bland foods are typically less nutritional and should be used minimally.

37. To reduce the risk of dumping syndrome, the nurse should teach the client to do which of the following?

☐ **1.** Sit upright for 30 minutes after meals.
☐ **2.** Drink liquids with meals, avoiding caffeine.
☐ **3.** Avoid milk and other dairy products.

☐ **4.** Decrease the carbohydrate content of meals.

38. A client who is recovering from a subtotal gastrectomy experiences dumping syndrome. The client asks the nurse, “When will I be able to eat three meals a day again like I used to?” Which of the following responses by the nurse is **most** appropriate?

☐ **1.** “Eating six meals a day is time-consuming, isn't it?”
☐ **2.** “You will have to eat six small meals a day for the rest of your life.”
☐ **3.** “You will be able to tolerate three meals a day before you are discharged.”
☐ **4.** “Most clients can resume their normal meal patterns in about 6 to 12 months.”

39. What should the nurse teach a client about how to avoid the dumping syndrome? Select all that apply.

☐ **1.** Consume three regularly spaced meals per day.
☐ **2.** Eat a diet with high-carbohydrate foods with each meal.
☐ **3.** Reduce fluids with meals, but take them between meals.
☐ **4.** Obtain adequate amounts of protein and fat in each meal.
☐ **5.** Eat in a relaxing environment.

40. After surgery for gastric cancer, a client is scheduled to undergo radiation therapy. It will be **most** important for the nurse to include information about which of the following in the client's teaching plan?

☐ **1.** Nutritional intake.
☐ **2.** Management of alopecia.
☐ **3.** Exercise and activity levels.
☐ **4.** Access to community resources.

41. One month following a subtotal gastrectomy for cancer, the nurse is evaluating the nursing care goal related to nutrition. Which of the following indicates that the client has attained the goal? The client has:

☐ **1.** Regained weight loss.
☐ **2.** Resumed normal dietary intake of three meals a day.
☐ **3.** Controlled nausea and vomiting through regular use of antiemetics.
☐ **4.** Achieved optimal nutritional status through oral or parenteral feedings.

The Client with Gastroesophageal Reflux Disease

42. Which of the following instructions should the nurse include in the teaching plan for a client who is experiencing gastroesophageal reflux disease (GERD)?

☐ **1.** Limit caffeine intake to two cups of coffee per day.
☐ **2.** Do not lie down for 2 hours after eating.
☐ **3.** Follow a low-protein diet.
☐ **4.** Take medications with milk to decrease irritation.

43. The client is scheduled to have an upper gastrointestinal tract series of x-rays. Following the x-rays, the nurse should instruct the client to:

☐ **1.** Take a laxative.
☐ **2.** Follow a clear liquid diet.
☐ **3.** Administer an enema.
☐ **4.** Take an antiemetic.

44. A client who has been diagnosed with gastroesophageal reflux disease (GERD) has heartburn. To decrease the heartburn, the nurse should instruct the client to **eliminate** which of the following items from the diet?

☐ **1.** Lean beef.
☐ **2.** Air-popped popcorn.
☐ **3.** Hot chocolate.
☐ **4.** Raw vegetables.

45. The client with gastroesophageal reflux disease (GERD) has a chronic cough. This symptom may be indicative of which of the following ?

☐ **1.** Development of laryngeal cancer.
☐ **2.** Irritation of the esophagus.
☐ **3.** Esophageal scar tissue formation.
☐ **4.** Aspiration of gastric contents.

46. Bethanechol has been prescribed for a client with gastroesophageal reflux disease (GERD). The nurse should assess the client for which of the following adverse effects?

☐ **1.** Constipation.
☐ **2.** Urinary urgency.
☐ **3.** Hypertension.

☐ **4.** Dry oral mucosa.

47. The client attends two sessions with the dietitian to learn about diet modifications to minimize gastroesophageal reflux. The teaching would be considered successful if the client decreases the intake of which of the following foods?

☐ **1.** Fats.
☐ **2.** High-sodium foods.
☐ **3.** Carbohydrates.
☐ **4.** High-calcium foods.

48. Which of the following dietary measures would be useful in preventing esophageal reflux?

☐ **1.** Eating small, frequent meals.
☐ **2.** Increasing fluid intake.
☐ **3.** Avoiding air swallowing with meals.
☐ **4.** Adding a bedtime snack to the dietary plan.

49. The nurse is obtaining a health history from a client who has a sliding hiatal hernia associated with reflux. The nurse should ask the client about the presence of which of the following symptoms?

☐ **1.** Heartburn.
☐ **2.** Jaundice.
☐ **3.** Anorexia.
☐ **4.** Stomatitis.

50. Which of the following factors would **most** likely contribute to the development of a client's hiatal hernia?

☐ **1.** Having a sedentary desk job.
☐ **2.** Being 5 feet, 3 inches tall (160 cm) and weighing 190 lb (86.2 kg).
☐ **3.** Using laxatives frequently.
☐ **4.** Being 40 years old.

51. Which of the following nursing interventions would **most** likely promote self-care behaviors in the client with a hiatal hernia?

☐ **1.** Introduce the client to other people who are successfully managing their care.
☐ **2.** Include the client's daughter in the teaching so that she can help implement the plan.
☐ **3.** Ask the client to identify other situations in which the client changed health care habits.
☐ **4.** Provide reassurance that the client will be able to implement all aspects of the plan successfully.

52. The client has been taking magnesium hydroxide (milk of magnesia) to control hiatal hernia symptoms. The nurse should assess the client for which of the following conditions most commonly associated with the ongoing use of magnesium-based antacids?

☐ **1.** Anorexia.
☐ **2.** Weight gain.
☐ **3.** Diarrhea.
☐ **4.** Constipation.

53. Which of the following lifestyle modifications should the nurse encourage the client with a hiatal hernia to include in activities of daily living?

☐ **1.** Daily aerobic exercise.
☐ **2.** Eliminating smoking and alcohol use.
☐ **3.** Balancing activity and rest.
☐ **4.** Avoiding high-stress situations.

54. In developing a teaching plan for the client with a hiatal hernia, the nurse's assessment of which work-related factors would be **most** useful?

☐ **1.** Number and length of breaks.
☐ **2.** Body mechanics used in lifting.
☐ **3.** Temperature in the work area.
☐ **4.** Cleaning solvents used.

55. The nurse instructs the client on health maintenance activities to help control symptoms from a hiatal hernia. Which of the following statements would indicate that the client has understood the instructions?

☐ **1.** “I'll avoid lying down after a meal.”
☐ **2.** “I can still enjoy my potato chips and cola at bedtime.”
☐ **3.** “I wish I didn't have to give up swimming.”
☐ **4.** “If I wear a girdle, I'll have more support for my stomach.”

56. The physician prescribes metoclopramide hydrochloride for the client with hiatal hernia. This drug is used in hiatal hernia therapy to accomplish which of the following objectives?

☐ **1.** Increase tone of the esophageal sphincter.
☐ **2.** Neutralize gastric secretions.
☐ **3.** Delay gastric emptying.
☐ **4.** Reduce secretion of digestive juices.

57. The nurse should instruct the client to avoid which of the following drugs while taking metoclopramide hydrochloride?

☐ **1.** Antacids.
☐ **2.** Antihypertensives.

☐ **3.** Anticoagulants.
☐ **4.** Alcohol.

58. A client is taking cimetidine (Tagamet) to treat a hiatal hernia. The nurse should evaluate the client to determine that the drug has been effective in preventing which of the following?
☐ **1.** Esophageal reflux.
☐ **2.** Dysphagia.
☐ **3.** Esophagitis.
☐ **4.** Ulcer formation.

59. The client asks the nurse if surgery is needed to correct a hiatal hernia. Which reply by the nurse would be **most** accurate?
☐ **1.** "Surgery is usually required, although medical treatment is attempted first."
☐ **2.** "Hiatal hernia symptoms can usually be successfully managed with diet modifications, medications, and lifestyle changes."
☐ **3.** "Surgery is not performed for this type of hernia."
☐ **4.** "A minor surgical procedure to reduce the size of the diaphragmatic opening will probably be planned."

Managing Care Quality and Safety

60. Which of the following hospitalized clients is at risk to develop parotitis?

☐ **1.** A 50-year-old client with nausea and vomiting who is on nothing-by-mouth status.
☐ **2.** A 75-year-old client with diabetes who has ill-fitting dentures.
☐ **3.** An 80-year-old client who has poor oral hygiene and is dehydrated.
☐ **4.** A 65-year-old client with lung cancer who has a feeding tube in place.

61. The nurse instructs the unlicensed nursing personnel (UAP) on how to provide oral hygiene for clients who cannot perform this task for themselves. Which of the following techniques should the nurse tell the UAP to incorporate into the client's daily care?

☐ **1.** Assess the oral cavity each time mouth care is given and record observations.
☐ **2.** Use a soft toothbrush to brush the client's teeth after each meal.
☐ **3.** Swab the client's tongue, gums, and lips with a soft foam applicator every 2 hours.
☐ **4.** Rinse the client's mouth with mouthwash several times a day.

62. The nurse is developing standards of care for a client with gastroesophageal reflux disease and wants to review current evidence for practice. Which one of the following resources will provide the **most** helpful information?

☐ **1.** A review in the Cochrane Library.
☐ **2.** A literature search in a database, such as the Cumulative Index to Nursing and Allied Health Literature (CINAHL).
☐ **3.** An online nursing textbook.
☐ **4.** The policy and procedure manual at the health care agency.

63. The nurse in the intensive care unit is giving a report to the nurse in the post surgical unit about a client who had a gastrectomy. The most effective way to assure essential information about the client is reported is to:

☐ **1.** Give the report face to face with both nurses in a quiet room.
☐ **2.** Audiotape the report for future reference and documentation.
☐ **3.** Use a printed checklist with information individualized for the client.
☐ **4.** Document essential transfer information in the client's electronic health record.

64. A client reports vomiting every hour for the past 8 to 10 hours. The nurse should assess the client for risk of which of the following? Select all that apply.

☐ **1.** Metabolic acidosis.
☐ **2.** Metabolic alkalosis.
☐ **3.** Hypokalemia.
☐ **4.** Hyperkalemia.
☐ **5.** Hyponatremia.

Answers, Rationales, and Test-Taking Strategies

The answers and rationales for each question follow below, along with keys ( *) to the client need (CN) and cognitive level (CL) for each question. As you check your answers, use the* ***Content Mastery and Test-Taking Skill Self-Analysis*** *worksheet (tear-out worksheet in back of book) to identify the reason(s) for not answering the questions correctly. For additional information about test-taking skills and strategies for answering questions, refer to pages 10–21 and pages 31–32 in Part 1 of this book.*

The Client with Disorders of the Oral Cavity

1. 2, 4. Following surgery for a fractured mandible, the client's jaws will be wired. The nurse should be prepared to intervene quickly in case the client develops respiratory distress or begins to choke or vomit. Wire cutters or scissors should always be available in case the wires need to be cut in a medical emergency. Suction equipment should be available to help clear the client's airway if necessary. It is not necessary to keep a nasogastric tube or oxygen cannula at the client's bedside. Cardiopulmonary arrest is unlikely, so a code cart is not needed at the bedside.

 CN: Safety and infection control; CL: Apply

2. 4. Clients with stomatitis (inflammation of the mouth) have significant discomfort, which impacts their ability to eat and drink. They will be most comfortable eating soft, bland foods, and avoiding temperature extremes in their food and liquids. Gargling with an antiseptic mouthwash will be irritating to the mucosa. Mouth care should include gentle brushing with a soft toothbrush and flossing.

 CN: Basic care and comfort; CL: Synthesize

3. 4. Clients who are at risk for developing infective endocarditis due to cardiac conditions such as mitral valve prolapse must take prophylactic antibiotics before any dental procedure that may cause bleeding. The client is not more susceptible to developing oral infections. Rather, the client is more susceptible to developing endocarditis that results from oral bacteria that enter the circulation during the dental procedure. The physician does not necessarily

need to re-evaluate the heart condition of a client who is stable, but antibiotics must be prescribed. It is not enough to simply remind the dentist about the heart condition.

CN: Reduction of risk potential; CL: Synthesize

4. 6 mL. To administer 300 mg PO, the nurse will need to administer 6 mL. The following formula is used to calculate the correct dosage: $300\ mg/X\ mL = 250\ mg/5\ mL$.

CN: Pharmacological and parenteral therapies; CL: Apply

5. 3. The lack of saliva, pain near the area of the ear, and the prolonged NPO status of the client are indications that the client may be developing parotitis, or inflammation of the parotid gland. Parotitis usually develops with dehydration combined with poor oral hygiene or when clients have been NPO for an extended period. Preventive measures include the use of sugarless hard candy or gum to stimulate saliva production, adequate hydration, and frequent mouth care. The client does not have indications of stomatitis (inflammation of the mouth), which produces excessive salivation and a sore mouth. The client does not have indications of oral candidiasis (thrush), which causes bluish white mouth lesions, and the nurse does not need to request a prescription for an antifungal mouthwash. There are no indications that the client has gingivitis, which can be recognized by the inflamed gingiva and bleeding that occur during toothbrushing, and while the client should brush the teeth and gums, increasing salivation to prevent parotitis is the priority at this time.

CN: Basic care and comfort; CL: Synthesize

6. 1. Chronic and excessive use of alcohol can lead to oral cancer. Smoking and use of smokeless tobacco are other significant risk factors. Additional risk factors include chronic irritation such as a broken tooth or ill-fitting dentures, poor dental hygiene, overexposure to sun (lip cancer), and syphilis. Use of mouthwash, lack of vitamin B_{12}, and lack of regular teeth cleaning appointments have not been implicated as primary risk factors for oral cancer.

CN: Health promotion and maintenance; CL: Analyze

7. 4. It is important for individuals who are engaged in smoking cessation efforts to feel comfortable with sharing their fears of failure with others and seeking support. Although fewer than 5% of smokers successfully quit on their first attempt, it is not helpful to tell a client to anticipate failure. Telling the client to exercise more self-control does not provide support. Taking a vacation to avoid job pressures does not address the issue of how to manage the desire to

smoke when in a stressful situation.

CN: Psychosocial adaptation; CL: Synthesize

8. 2. The priority of care in the immediate postoperative phase is to maintain a patent airway. The nurse should observe the client carefully for signs of respiratory distress. If the client becomes nauseated, antiemetics should be administered to decrease the chance of vomiting with obstruction of the airway and aspiration of vomitus. Providing frequent oral hygiene and an alternative means of communication are important aspects of nursing care, but maintaining a patent airway is most important.

CN: Physiological adaptation; CL: Synthesize

9. 1. Immediately after surgery, the client should be placed on the side with the head slightly elevated. This position helps facilitate removal of secretions and decreases the likelihood of aspiration should vomiting occur. A registered nurse does not need to be present to reposition the client, unless the client's condition warrants the presence of the nurse. Although it is important to elevate the head, there is no need to keep the client's head elevated on two pillows unless that position is comfortable for the client.

CN: Reduction of risk potential; CL: Synthesize

10. 3. The nurse's first action is to clear the client's airway as necessary. Inserting an NG tube or administering an antiemetic may prevent future vomiting episodes, but these procedures are not helpful when the client is actually vomiting. Cutting the wires is done only as a last resort or in case of respiratory or cardiac arrest.

CN: Physiological adaptation; CL: Synthesize

The Client with Peptic Ulcer Disease

11. 45 mL

CN: Pharmacological and parenteral therapies; CL: Apply

12.

3. A client with peptic ulcer disease experiencing a sudden onset of acute stomach pain.

4. A client who is requesting pain medication 2 days after surgery to repair a fractured jaw.

2. A client with suspected gastric cancer who is on nothing-by-mouth (NPO) status for tests.

1. A client awaiting surgery for a hiatal hernia repair at 11 AM.

The client with peptic ulcer disease who is experiencing a sudden onset of acute stomach pain should be assessed first by the nurse. The sudden onset of stomach pain could be indicative of a perforated ulcer, which would require immediate medical attention. It is also important for the nurse to thoroughly assess the nature of the client's pain. The client with the fractured jaw is experiencing pain and should be assessed next. The nurse should then assess the client who is NPO for tests to ensure NPO status and comfort. Last, the nurse can assess the client before surgery.

 CN: Management of care; CL: Synthesize

13. 1. A sudden spike in temperature following an endoscopic procedure may indicate perforation of the GI tract. The nurse should promptly conduct a further assessment of the client, looking for further indicators of perforation, such as a sudden onset of acute upper abdominal pain; a rigid, boardlike abdomen; and developing signs of shock. Telling the assistant to change thermometers is not an appropriate action and only further delays the appropriate action of assessing the client. The nurse would not administer acetaminophen without further assessment of the client or without a physician's prescription; a suspected perforation would require that the client be placed on nothing-by-mouth status. Asking the assistant to bathe the client before any assessment by the nurse is inappropriate.

 CN: Management of care; CL: Synthesize

14. 4. The client is experiencing a perforation of the ulcer, and the nurse should notify the physician immediately. The body reacts to perforation of an ulcer by immobilizing the area as much as possible. This results in boardlike abdominal rigidity, usually with extreme pain. Perforation is a medical emergency requiring immediate surgical intervention because peritonitis develops quickly after perforation. Administering pain medication is not the first action, although the nurse later should institute measures to relieve pain. Elevating the head of the bed will not minimize the perforation. A nasogastric tube may be used following surgery.

 CN: Physiological adaptation; CL: Synthesize

15. 3, 4, 5. Vomiting and weight loss are common with gastric ulcers. The client may also have blood in the stools (melena) from gastric bleeding. Clients with a gastric ulcer are most likely to have a burning epigastric pain that occurs about 1 hour after eating. Eating frequently aggravates the pain. Clients with duodenal ulcers are more likely to have pain that occurs during the night and is frequently relieved by eating.

CN: Physiological adaptation; CL: Analyze

16. 2, 4, 5. Following a gastroscopy, the nurse should monitor the client for complications, which include perforation and the potential for aspiration. An elevated temperature, epigastric pain, or the vomiting of blood (hematemesis) are all indications of a possible perforation and should be reported promptly. A sore throat is a common occurrence following a gastroscopy. Clients are usually sedated to decrease anxiety and the nurse would anticipate that the client will be drowsy following the procedure.

CN: Reduction of risk potential; CL: Analyze

17. 4. Black, tarry stools are an important warning sign of bleeding in peptic ulcer disease. Digested blood in the stool causes it to be black; the odor of the stool is very offensive. The nurse should instruct the client to report the incidence of black stools promptly to the primary health care provider. Increasing fluids or avoiding iron-rich foods will not change the stool color or consistency if the stools contain digested blood. Until other information is available, it is not necessary to initiate contact precautions.

CN: Reduction of risk potential; CL: Synthesize

18. 4. Histamine-2 (H2) receptor antagonists, such as ranitidine, reduce gastric acid secretion. Antisecretory, or proton-pump inhibitors, such as omeprazole, help ulcers heal quickly in 4 to 8 weeks. Cytoprotective drugs, such as sucralfate, protect the ulcer surface against acid, bile, and pepsin. Antacids reduce acid concentration and help reduce symptoms.

CN: Pharmacological and parenteral therapies; CL: Evaluate

19. 1, 2, 3, 4. The nurse should encourage the client to reduce stimulation that may enhance gastric secretion. The nurse can also advise the client to utilize health practices that will prevent recurrences of ulcer pain, such as avoiding fatigue and elimination of smoking. Eating small, frequent meals helps to prevent gastric distention if not actively bleeding and decreases distension and release of gastrin. Medications should be administered promptly to maintain optimum levels. After awakening during the night, the client should eat a small

snack and return to bed, keeping the head of the bed elevated for an hour after eating. It is not necessary to stay away from crowded areas.

 CN: Physiological adaptation; CL: Synthesize

20. 2, 3. The symptoms of nausea and dizziness in a client with peptic ulcer disease may be indicative of hemorrhage and should not be ignored. The appropriate nursing actions at this time are for the nurse to monitor the client's vital signs and notify the physician of the client's symptoms. To administer an antacid hourly or to wait 1 hour to reassess the client would be inappropriate; prompt intervention is essential in a client who is potentially experiencing a gastrointestinal hemorrhage. The nurse would notify the physician of assessment findings and then initiate oxygen therapy if prescribed by the physician.

 CN: Physiological adaptation; CL: Synthesize

21. 3. Diet therapy for ulcer disease is a controversial issue. There is no scientific evidence that diet therapy promotes healing. Most clients are instructed to follow a diet that they can tolerate. There is no need for the client to ingest only a bland or high-protein diet. Milk may be included in the diet, but it is not recommended in excessive amounts.

 CN: Basic care and comfort; CL: Apply

22. 2. A relaxed environment is an essential component of ulcer healing. Nurses can help clients understand the importance of relaxation and explore with them ways to balance work and family demands to promote healing. Being involved with his work may prevent boredom; however, this client is upset and argumentative. Not keeping up with his job will probably increase the client's stress level, but the nurse's response is best if it is based on the fact that a relaxed environment is an essential component of ulcer healing. Nurses cannot set limits on a client's behavior; clients must make the decision to make lifestyle changes.

 CN: Basic care and comfort; CL: Apply

23. 4. It would be most effective for the client to develop a health maintenance plan that incorporates regular periods of physical and mental rest in the daily schedule. Strategies should be identified to deal with the types of physical and mental stressors that the client needs to cope with in the home and work environments. Scheduling physical activity to occur only in the morning would not be restful or practical. There is no need for the client to avoid yard work or jogging if these activities are not stressful.

 CN: Psychosocial adaptation; CL: Synthesize

24. 3. Ranitidine blocks secretion of hydrochloric acid. Clients who take only

one daily dose of ranitidine are usually advised to take it at bedtime to inhibit nocturnal secretion of acid. Clients who take the drug twice a day are advised to take it in the morning and at bedtime. It is not necessary to take the drug before meals. The client should take the drug regularly, not just when pain occurs.

 CN: Pharmacological and parenteral therapies; CL: Evaluate

25. 3. It is most likely that the client is experiencing an adverse effect of the antacid. Antacids with aluminum salt products, such as aluminum hydroxide, form insoluble salts in the body. These precipitate and accumulate in the intestines, causing constipation. Increasing dietary fiber intake or daily exercise may be a beneficial lifestyle change for the client but is not likely to relieve the constipation caused by the aluminum hydroxide. Constipation, in isolation from other symptoms, is not a sign of a bowel obstruction.

 CN: Pharmacological and parenteral therapies; CL: Analyze

26. 4. Antacids are most effective if taken 1 to 3 hours after meals and at bedtime. When an antacid is taken on an empty stomach, the duration of the drug's action is greatly decreased. Taking antacids 1 to 3 hours after a meal lengthens the duration of action, thus increasing the therapeutic action of the drug. Antacids should be administered about 2 hours after other medications to decrease the chance of drug interactions. It is not necessary to decrease fluid intake when taking antacids. If antacids are taken more frequently than recommended, the likelihood of developing adverse effects increases. Therefore, the client should not take antacids as often as desired to control pain.

 CN: Pharmacological and parenteral therapies; CL: Evaluate

27. 2. Alcohol is a gastric irritant that should be eliminated from the intake of the client with peptic ulcer disease. Analgesics are not used to control ulcer pain; many analgesics are gastric irritants. The client's hemoglobin and hematocrit typically do not need to be monitored every 3 months, unless gastrointestinal bleeding is suspected. The client can maintain an active lifestyle and does not need to eliminate contact sports as long as they are not stress inducing.

 CN: Reduction of risk potential; CL: Evaluate

The Client with Cancer of the Stomach

28. 2, 3, 5, 6. The client who is experiencing upper GI bleeding is at risk for developing hypovolemic shock from blood loss. Therefore, the signs and symptoms the nurse should expect to find are those related to hypovolemia, including decreased urine output, tachycardia, rapid respirations, and thirst. The client's skin would be cool and clammy, not dry and flushed. The client would

also be likely to develop hypotension, which would lead to a narrowing pulse pressure, not a widening pulse pressure.

CN: Physiological adaptation; CL: Analyze

29. 3. The most likely complication of an endoscopic procedure is perforation. A sudden temperature spike within 1 to 2 hours after the procedure is indicative of a perforation and should be reported immediately to the physician. A sore throat is to be anticipated after an endoscopy. Clients are given sedatives during the procedure, so it is expected that they will display signs of sedation after the procedure is completed. A lack of appetite could be the result of many factors, including the disease process.

CN: Reduction of risk potential; CL: Analyze

30. 2. A Billroth II procedure bypasses the duodenum and connects the gastric stump directly to the jejunum. The pyloric sphincter is removed, along with some of the stomach fundus.

CN: Physiological adaptation; CL: Apply

31. 3. The information presented indicates the client is grieving about the changes that will occur as a result of the diagnosis of gastric cancer. The information does not indicate the client is having difficulty coping, or experiencing insomnia. The client is not demonstrating signs of anxiety.

CN: Psychosocial adaptation; CL: Analyze

32. 1. About 12 to 24 hours after a subtotal gastrectomy, gastric drainage is normally brown, which indicates digested blood. Bile green or cloudy white drainage is not expected during the first 12 to 24 hours after a subtotal gastrectomy. Drainage during the first 6 to 12 hours contains some bright red blood, but large amounts of blood or excessive bloody drainage should be reported to the physician promptly.

CN: Reduction of risk potential; CL: Apply

33. 3. Nausea, vomiting, or abdominal distention indicates that gas and secretions are accumulating within the gastric pouch due to impaired peristalsis or edema at the operative site and may indicate that the drainage system is not working properly. Saline solution is used to irrigate NG tubes. Hypotonic solutions such as water increase electrolyte loss. In addition, a physician's prescription is needed to irrigate the NG tube because this procedure could disrupt the suture line. After gastric surgery, only the surgeon repositions the NG tube because of the danger of rupturing or dislodging the suture line. The amount of suction varies with the type of tube used and is prescribed by the physician.

High suction may create too much tension on the gastric suture line.

CN: Reduction of risk potential; CL: Synthesize

34. 25 gtt/min. To administer IV fluids at 100 mL/h using tubing that has a drip factor of 15 gtt/mL, the nurse should use the following formula: 100 mL/60 minutes × 15 gtts/1 mL = 25 gtt/min.

CN: Pharmacological and parenteral therapies; CL: Apply

35. 3. A client who has had abdominal surgery is best placed in a low Fowler's position postoperatively. This positioning relaxes abdominal muscles and provides for maximum respiratory and cardiovascular function. The prone, supine, or Sims position would not be tolerated by a client who has had abdominal surgery, nor do those positions support respiratory or cardiovascular functioning.

CN: Physiological adaptation; CL: Synthesize

36. 2. Because of the client's reduced stomach capacity, frequent small feedings are recommended. Early satiety can result, and large quantities of food are not well tolerated. Each client should progress at his or her own pace, gradually increasing the amount of food eaten. The goal is three meals daily if possible, but this can take 6 months or longer to achieve. Nausea can be episodic and can result from eating too fast or eating too much at one time. Eating less and eating more slowly, rather than not eating at all, can be a solution. Bland foods are recommended as starting foods because they are easily digested and are less irritating to the healing mucosa. Bland foods are not less nutritional.

CN: Basic care and comfort; CL: Create

37. 4. Carbohydrates are restricted, but protein, including meat and dairy products, is recommended because it is digested more slowly. Lying down for 30 minutes after a meal is encouraged to slow movement of the food bolus. Fluids are restricted to reduce the bulk of food. There is no need to avoid caffeine.

CN: Basic care and comfort; CL: Synthesize

38. 4. The symptoms related to dumping syndrome that occur after a gastrectomy usually disappear by 6 to 12 months after surgery. Most clients can begin to resume normal meal patterns after signs of the dumping syndrome have stopped. Acknowledging that eating six meals a day is time-consuming does not address the client's question and makes an assumption about the client's concerns. It is not necessarily true that a six-meal-a-day dietary pattern will be required for the rest of the client's life. Clients will not be able to eat three meals a day before hospital discharge.

CN: Physiological adaptation; CL: Synthesize

39. 3, 4, 5. Dumping syndrome results in excessive, rapid emptying of gastric contents. The nurse should instruct the client to avoid dumping syndrome by eating small, frequent meals rather than three large meals, having a diet high in protein and fat and low in carbohydrates, reducing fluids with meals but taking them between meals, and relaxing when eating. The client should eat slowly and regularly and rest after meals.

CN: Health promotion and maintenance; CL: Create

40. 1. Clients who have had gastric surgery are prone to postoperative complications, such as dumping syndrome and postprandial hypoglycemia, which can affect nutritional intake. Vitamin absorption can also be an issue, depending on the extent of the gastric surgery. Radiation therapy to the upper gastrointestinal area also can affect nutritional intake by causing anorexia, nausea, and esophagitis. The client would not be expected to develop alopecia. Exercise and activity levels as well as access to community resources are important teaching areas, but nutritional intake is a priority need.

CN: Reduction of risk potential; CL: Synthesize

41. 4. An appropriate expected outcome is for the client to achieve optimal nutritional status through the use of oral feedings or total parenteral nutrition (TPN). TPN may be used to supplement oral intake, or it may be used alone if the client cannot tolerate oral feedings. The client would not be expected to regain lost weight within 1 month after surgery or to tolerate a normal dietary intake of three meals a day. Nausea and vomiting would not be considered an expected outcome of gastric surgery, and regular use of antiemetics would not be anticipated.

CN: Physiological adaptation; CL: Evaluate

The Client with Gastroesophageal Reflux Disease

42. 2. The nurse should instruct the client to not lie down for about 2 hours after eating to prevent reflux. Caffeinated beverages decrease pressure in the lower esophageal sphincter and milk increases gastric acid secretion, so these beverages should be avoided. The client is encouraged to follow a high-protein, low-fat diet, and avoid foods that are irritating.

CN: Reduction of risk potential; CL: Synthesize

43. 1. The client should take a laxative after an upper gastrointestinal series to stimulate a bowel movement. This examination involves the administration of

barium, which must be promptly eliminated from the body because it may harden and cause an obstruction. A clear liquid diet would have no effect on stimulating removal of the barium. The client should not have nausea and an antiemetic would not be necessary; additionally, the antiemetic will decrease peristalsis and increase the likelihood of eliminating the barium. An enema would be ineffective because the barium is too high in the gastrointestinal tract.

 CN: Reduction of risk potential; CL: Synthesize

44. 3. With GERD, eating substances that decrease lower esophageal sphincter pressure causes heartburn. A decrease in the lower esophageal sphincter pressure allows gastric contents to reflux into the lower end of the esophagus. Foods that can cause a decrease in esophageal sphincter pressure include fatty foods, chocolate, caffeinated beverages, peppermint, and alcohol. A diet high in protein and low in fat is recommended for clients with GERD. Lean beef, popcorn, and raw vegetables would be acceptable.

 CN: Physiological adaptation; CL: Synthesize

45. 4. Clients with GERD can develop pulmonary symptoms, such as coughing, wheezing, and dyspnea, that are caused by the aspiration of gastric contents. GERD does not predispose the client to the development of laryngeal cancer. Irritation of the esophagus and esophageal scar tissue formation can develop as a result of GERD. However, GERD is more likely to cause painful and difficult swallowing.

 CN: Physiological adaptation; CL: Analyze

46. 2. Bethanechol, a cholinergic drug, may be used in GERD to increase lower esophageal sphincter pressure and facilitate gastric emptying. Cholinergic adverse effects may include urinary urgency, diarrhea, abdominal cramping, hypotension, and increased salivation. To avoid these adverse effects, the client should be closely monitored to establish the minimum effective dose.

 CN: Pharmacological and parenteral therapies; CL: Analyze

47. 1. Fats are associated with decreased esophageal sphincter tone, which increases reflux. Obesity contributes to the development of hiatal hernia, and a low-fat diet might also aid in weight loss. Carbohydrates and foods high in sodium or calcium do not affect gastroesophageal reflux.

 CN: Basic care and comfort; CL: Evaluate

48. 1. Esophageal reflux worsens when the stomach is overdistended with food. Therefore, an important measure is to eat small, frequent meals. Fluid intake should be decreased during meals to reduce abdominal distention.

Avoiding air swallowing does not prevent esophageal reflux. Food intake in the evening should be strictly limited to reduce the incidence of nighttime reflux, so bedtime snacks are not recommended.

CN: Basic care and comfort; CL: Synthesize

49. 1. Heartburn, the most common symptom of a sliding hiatal hernia, results from reflux of gastric secretions into the esophagus. Regurgitation of gastric contents and dysphagia are other common symptoms. Jaundice, which results from a high concentration of bilirubin in the blood, is not associated with hiatal hernia. Anorexia is not a typical symptom of hiatal hernia. Stomatitis is inflammation of the mouth.

CN: Physiological adaptation; CL: Analyze

50. 2. Any factor that increases intra-abdominal pressure, such as obesity, can contribute to the development of hiatal hernia. Other factors include abdominal straining, frequent heavy lifting, and pregnancy. Hiatal hernia is also associated with older age and occurs in women more frequently than in men. Having a sedentary desk job, using laxatives frequently, or being 40 years old is not likely to be a contributing factor in development of a hiatal hernia.

CN: Reduction of risk potential; CL: Analyze

51. 3. Self-responsibility is the key to individual health maintenance. Using examples of situations in which the client has demonstrated self-responsibility can be reinforcing and supporting. The client has ultimate responsibility for personal health habits. Meeting other people who are managing their care and involving family members can be helpful, but individual motivation is more important. Reassurance can be helpful but is less important than individualization of care.

CN: Basic care and comfort; CL: Synthesize

52. 3. The magnesium salts in magnesium hydroxide are related to those found in laxatives and may cause diarrhea. Aluminum salt products can cause constipation. Many clients find that a combination product is required to maintain normal bowel elimination. The use of magnesium hydroxide does not cause anorexia or weight gain.

CN: Pharmacological and parenteral therapies; CL: Analyze

53. 2. Smoking and alcohol use both reduce esophageal sphincter tone and can result in reflux. They therefore should be avoided by clients with hiatal hernia. Daily aerobic exercise, balancing activity and rest, and avoiding high-stress situations may increase the client's general health and well-being, but they

are not directly associated with hiatal hernia.

CN: Health promotion and maintenance; CL: Synthesize

54. 2. Bending, especially after eating, can cause gastroesophageal reflux. Lifting heavy objects increases intra-abdominal pressure. Assessing the client's lifting techniques enables the nurse to evaluate the client's knowledge of factors contributing to hiatal hernia and how to prevent complications. Number and length of breaks, temperature in the work area, and cleaning solvents used are not directly related to treatment of hiatal hernia.

CN: Basic care and comfort; CL: Create

55. 1. A client with a hiatal hernia should avoid the recumbent position immediately after meals to minimize gastric reflux. Bedtime snacks, as well as high-fat foods and carbonated beverages, should be avoided. Excessive vigorous exercise also should be avoided, especially after meals, but there is no reason why the client must give up swimming. Wearing tight, constrictive clothing such as a girdle can increase intra-abdominal pressure and thus lead to reflux of gastric juices.

CN: Basic care and comfort; CL: Evaluate

56. 1. Metoclopramide hydrochloride increases esophageal sphincter tone and facilitates gastric emptying; both actions reduce the incidence of reflux. Other drugs, such as antacids or histamine receptor antagonists, may also be prescribed to help control reflux and esophagitis and to decrease or neutralize gastric secretions. Reglan is not effective in decreasing or neutralizing gastric secretions.

CN: Pharmacological and parenteral therapies; CL: Apply

57. 4. Metoclopramide hydrochloride can cause sedation. Alcohol and other central nervous system depressants add to this sedation. A client who is taking this drug should be cautioned to avoid driving or performing other hazardous activities for a few hours after taking the drug. Clients may take antacids, antihypertensives, and anticoagulants while on metoclopramide.

CN: Pharmacological and parenteral therapies; CL: Synthesize

58. 3. Cimetidine (Tagamet) is a histamine receptor antagonist that decreases the quantity of gastric secretions. It may be used in hiatal hernia therapy to prevent or treat the esophagitis and heartburn associated with reflux. Cimetidine is not used to prevent reflux, dysphagia, or ulcer development.

CN: Pharmacological and parenteral therapies; CL: Apply

59. 2. Most clients can be treated successfully with a combination of diet restrictions, medications, weight control, and lifestyle modifications. Surgery to correct a hiatal hernia, which commonly produces complications, is performed only when medical therapy fails to control the symptoms.

 CN: Reduction of risk potential; CL: Synthesize

Managing Care Quality and Safety

60. 3. Parotitis is inflammation of the parotid gland. Although any of the clients listed could develop parotitis, given the data provided, the one most likely to develop parotitis is the elderly client who is dehydrated with poor oral hygiene. Any client who experiences poor oral hygiene is at risk for developing parotitis. To help prevent parotitis, it is essential for the nurse to ensure the client receives oral hygiene at regular intervals and has an adequate fluid intake.

 CN: Reduction of risk potential; CL: Analyze

61. 2. A soft toothbrush should be used to brush the client's teeth after every meal and more often as needed. Mechanical cleaning is necessary to maintain oral health, stimulate gingiva, and remove plaque. Assessing the oral cavity and recording observations is the responsibility of the nurse, not the nursing assistant. Swabbing with a safe foam applicator does not provide enough friction to clean the mouth. Mouthwash can be a drying irritant and is not recommended for frequent use.

 CN: Basic care and comfort; CL: Synthesize

62. 1. The Cochrane Library provides systematic reviews of health care interventions and will provide the best resource for evidence for nursing care. CINAHL offers key word searches to published articles in nursing and allied health literature, but not reviews. A nursing textbook has information about nursing care, which may include evidence-based practices, but textbooks may not have the most up-to-date information. While the policy and procedure manual may be based on evidence-based practices, the most current practices will be found in evidence-based reviews of literature.

 CN: Management of care; CL: Apply

63. 3. Using an individualized printed checklist assures that all key information is reported; the checklist can then serve as a record to which nurses can refer later. Giving a verbal report leaves room for error in memory; using an audiotape or an electronic health record requires nurses to spend unnecessary time retrieving information.

CN: Safety and infection control; CL: Apply

64. 2, 3. Gastric acid contains a substantial amount of potassium, hydrogen ions, and chloride ions. Frequent vomiting can induce an excessive loss of these acids leading to alkalosis. Excessive loss of potassium produces hypokalemia. Frequent vomiting does not lead to the condition of too much potassium (hyperkalemia) or too little sodium (hyponatremia)

CN: Reduction of risk potential; CL: Analyze

TEST 6: The Client with Lower Gastrointestinal Tract Health Problems

The Client with Cancer of the Colon

1. Which of the following guidelines reflects the current American and Canadian Cancer Societies' recommendations for screening for colon cancer in individuals who are **not** at high risk?

☐ **1.** Annual digital rectal examination should begin at age 40.
☐ **2.** Annual fecal testing for occult blood should begin at age 50.
☐ **3.** Individuals should obtain a baseline barium enema at age 40.
☐ **4.** Individuals should obtain a baseline colonoscopy at age 45.

2. A client refuses to look at or care for her colostomy. Which of the following statements by the nurse would be **most** appropriate?

☐ **1.** "It has been 4 days since your surgery, and you will soon be discharged. You have to learn to care for your colostomy before you leave the hospital."
☐ **2.** "I think we will need to teach your husband to care for your colostomy if you are not going to be able to do it."
☐ **3.** "I understand how you are feeling. It is important for you to feel attractive and you think having a colostomy changes your attractiveness."
☐ **4.** "I can see that you are upset. Would you like to share your concerns with me?"

3. Which of the following is a potential risk factor for the development of colon cancer?

☐ **1.** Chronic constipation.
☐ **2.** Long-term use of laxatives.
☐ **3.** History of smoking.
☐ **4.** History of inflammatory bowel disease.

4. The nurse is conducting a community presentation on the early detection of colon cancer. Which of the following should the nurse encourage members of the audience to report to their health care providers? Select all that apply.

☐ **1.** **Fatigue**.
☐ **2.** Unexplained weight loss with adequate nutritional intake.
☐ **3.** Rectal bleeding.
☐ **4.** Bowel changes.
☐ **5.** Positive fecal occult blood testing.

5. A client with colon cancer is having a barium enema. The nurse should

instruct the client to take which of the following after the procedure is completed?

☐ **1.** Laxative.
☐ **2.** Anticholinergic.
☐ **3.** Antacid.
☐ **4.** Demulcent.

6. A client has a nasogastric tube inserted at the time of abdominal perineal resection with permanent colostomy for colon cancer. This tube will most likely be removed when the client demonstrates:

☐ **1.** Absence of nausea and vomiting.
☐ **2.** Passage of mucus from the rectum.
☐ **3.** Passage of flatus and feces from the colostomy.
☐ **4.** Absence of stomach drainage for 24 hours.

7. The client with colon cancer has an abdominal-perineal resection with a colostomy. Which of the following nursing interventions is **most** appropriate for this client in the postoperative period?

☐ **1.** Maintain the client in a semi-Fowler's position.
☐ **2.** Assist the client with warm sitz baths.
☐ **3.** Administer 30 mL of milk of magnesia to stimulate peristalsis.
☐ **4.** Remove the ostomy pouch as needed so the stoma can be assessed.

8. The nurse assesses the client's stoma during the initial postoperative period. Which of the following observations should be reported immediately to the physician?

☐ **1.** The stoma is slightly edematous.
☐ **2.** The stoma is dark red to purple.
☐ **3.** The stoma oozes a small amount of blood.
☐ **4.** The stoma does not expel stool.

9. While changing the client's colostomy bag and dressing, the nurse assesses that the client is ready to participate in self-care by noting which of the following?

☐ **1.** The client asks what time the doctor will visit that day.
☐ **2.** The client asks about the supplies used during the dressing change.
☐ **3.** The client talks about the news on the television.
☐ **4.** The client is upsets about the way the night nurse changed the dressing.

10. Which of the following skin preparations would be **best** to apply around the client's colostomy?

☐ **1.** Stomahesive.
☐ **2.** Petroleum jelly.

☐ **3.** Cornstarch.
☐ **4.** Antiseptic cream.

11. A client is recovering from an abdominal-perineal resection. Which of the following measures would **most** effectively promote wound healing after the perineal drains have been removed?
☐ **1.** Taking sitz baths.
☐ **2.** Taking daily showers.
☐ **3.** Applying warm, moist dressings to the area.
☐ **4.** Applying a protected heating pad to the area.

12. When planning diet teaching for the client with a colostomy, the nurse should develop a plan that emphasizes which of the following dietary instructions?
☐ **1.** Foods containing roughage should not be eaten.
☐ **2.** Liquids are best limited to prevent diarrhea.
☐ **3.** Clients should experiment to find the diet that is best for them.
☐ **4.** A high-fiber diet will produce a regular passage of stool.

13. Which of the following is an expected outcome for a client who is recovering from an abdominal-perineal resection with a colostomy? The client will:
☐ **1.** Maintain a fluid intake of 3,000 mL/day.
☐ **2.** Eliminate fiber from the diet.
☐ **3.** Limit physical activity to light exercise.
☐ **4.** Accept that sexual activity will be diminished.

14. A client with colon cancer has developed ascites. The nurse should conduct a focused assessment for which of the following? Select all that apply.
☐ **1.** Respiratory distress.
☐ **2.** Bleeding.
☐ **3.** Fluid and electrolyte imbalance.
☐ **4.** Weight gain.
☐ **5.** Infection.

The Client with Hemorrhoids

15. A 36-year-old female client has been diagnosed with hemorrhoids. Which of the following factors in the client's history would **most** likely be a primary cause of her hemorrhoids?

☐ **1.** Her age.
☐ **2.** Three vaginal delivery pregnancies.
☐ **3.** Her job as a schoolteacher.
☐ **4.** Varicosities in her legs.

16. Which position would be **best** for the client in the early postoperative period after a hemorrhoidectomy?

☐ **1.** High Fowler's.
☐ **2.** Supine.
☐ **3.** Side-lying.
☐ **4.** Trendelenburg's.

17. The nurse instructs the client who has had a hemorrhoidectomy not to use sitz baths until at least 12 hours postoperatively to avoid inducing which of the following complications?

☐ **1.** Hemorrhage.
☐ **2.** Rectal spasm.
☐ **3.** Urine retention.
☐ **4.** Constipation.

18. The nurse teaches the client who has had rectal surgery the proper timing for sitz baths. The client has understood the teaching when the client states that it is **most** important to take a sitz bath:

☐ **1.** First thing each morning.
☐ **2.** As needed for discomfort.
☐ **3.** After a bowel movement.
☐ **4.** At bedtime.

The Client with Inflammatory Bowel Disease

19. A client has been placed on long-term sulfasalazine therapy for treatment of ulcerative colitis. The nurse should encourage the client to eat which of the following foods to help avoid the nutrient deficiencies that may develop as a result of this medication?

☐ **1.** Citrus fruits.
☐ **2.** Green, leafy vegetables.
☐ **3.** Eggs.
☐ **4.** Milk products.

20. The nurse is assigning clients for the evening shift. Which of the following clients are appropriate for the nurse to assign to a licensed practical nurse to provide client care? Select all that apply.

☐ **1.** A client with Crohn's disease who is receiving total parenteral nutrition (TPN).
☐ **2.** A client who underwent inguinal hernia repair surgery 3 hours ago.
☐ **3.** A client with an intestinal obstruction who needs a Cantor tube inserted.
☐ **4.** A client with diverticulitis who needs teaching about take-home medications.
☐ **5.** A client who is experiencing an exacerbation of his ulcerative colitis.

21. A client who has had ulcerative colitis for the past 5 years is admitted to the hospital with an exacerbation of the disease. Which of the following factors is **most** likely of greatest significance in causing an exacerbation of ulcerative colitis?

☐ **1.** A demanding and stressful job.
☐ **2.** Changing to a modified vegetarian diet.
☐ **3.** Beginning a weight-training program.
☐ **4.** Walking 2 miles (3.2 km) every day.

A client who is experiencing an exacerbation of ulcerative colitis is receiving IV fluids that are to be infused at 125 mL/h. The IV tubing delivers 15 gtt/mL. How quickly should the nurse infuse the fluids in drops per minute to infuse the fluids at the prescribed rate?

_____ gtt/min.

23. When planning care for a client with ulcerative colitis who is experiencing an exacerbation of symptoms, which client care activities can the nurse appropriately delegate to an unlicensed assistant? Select all that apply.

☐ **1.** Assessing the client's bowel sounds.
☐ **2.** Providing skin care following bowel movements.
☐ **3.** Evaluating the client's response to antidiarrheal medications.
☐ **4.** Maintaining intake and output records.
☐ **5.** Obtaining the client's weight.

24. Which goal for the client's care should take priority during the first days of hospitalization for an exacerbation of ulcerative colitis?

☐ **1.** Promoting self-care and independence.
☐ **2.** Managing diarrhea.
☐ **3.** Maintaining adequate nutrition.
☐ **4.** Promoting rest and comfort.

25. The client with ulcerative colitis is to be on bed rest with bathroom privileges. When evaluating the effectiveness of this level of activity, the nurse should determine if the client has:

☐ **1.** Conserved energy.
☐ **2.** Reduced intestinal peristalsis.
☐ **3.** Obtained needed rest.
☐ **4.** Minimized stress.

26. A client has had an exacerbation of ulcerative colitis with cramping and diarrhea persisting longer than 1 week. The nurse should assess the client for which of the following complications?

☐ **1.** Heart failure.
☐ **2.** Deep vein thrombosis.
☐ **3.** Hypokalemia.
☐ **4.** Hypocalcemia.

27. A client who has ulcerative colitis says to the nurse, “I can't take this anymore; I'm constantly in pain, and I can't leave my room because I need to stay by the toilet. I don't know how to deal with this.” Based on these comments, the nurse should determine the client is experiencing:

☐ **1.** Extreme fatigue.
☐ **2.** Disturbed thought.
☐ **3.** A sense of isolation.
☐ **4.** Difficulty coping.

28. A client newly diagnosed with ulcerative colitis who has been placed on steroids asks the nurse why steroids are prescribed. The nurse should tell the

client:

☐ **1.** “Ulcerative colitis can be cured by the use of steroids.”
☐ **2.** “Steroids are used in severe flare-ups because they can decrease the incidence of bleeding.”
☐ **3.** “Long-term use of steroids will prolong periods of remission.”
☐ **4.** “The side effects of steroids outweigh their benefits to clients with ulcerative colitis.”

29. A client who has ulcerative colitis has persistent diarrhea, and has lost 12 lb (5.4 kg) since the exacerbation of the disease. Which of the following will be most effective in helping the client meet nutritional needs?

☐ **1.** Continuous enteral feedings.
☐ **2.** Following a high-calorie, high-protein diet.
☐ **3.** Total parenteral nutrition (TPN).
☐ **4.** Eating six small meals a day.

30. A client with ulcerative colitis is to take sulfasalazine. Which of the following instructions should the nurse provide for the client about taking this medication at home? Select all that apply.

☐ **1.** Drink enough fluids to maintain a urine output of at least 1,200 to 1,500 mL/day.
☐ **2.** Discontinue therapy if symptoms of acute intolerance develop and notify the health care provider.
☐ **3.** Stop taking the medication if the urine turns orange-yellow.
☐ **4.** Avoid activities that require alertness.
☐ **5.** If dose is missed, skip and continue with the next dose.

31. The physician prescribes sulfasalazine for the client with ulcerative colitis. Which instruction should the nurse give the client about taking this medication?

☐ **1.** Avoid taking it with food.
☐ **2.** Take the total dose at bedtime.
☐ **3.** Take it with a full glass (240 mL) of water.
☐ **4.** Stop taking it if urine turns orange-yellow.

The nurse has a prescription to administer sulfasalazine 2 g. The medication is available in 500-mg tablets. How many tablets should the nurse administer?

_____ tablets.

33. Which of the following diets would be **most** appropriate for the client with ulcerative colitis?

☐ **1.** High-calorie, low-protein.

☐ **2.** High-protein, low-residue.
☐ **3.** Low-fat, high-fiber.
☐ **4.** Low-sodium, high-carbohydrate.

34. A client who has a history of Crohn's disease is admitted to the hospital with fever, diarrhea, cramping, abdominal pain, and weight loss. The nurse should monitor the client for:
☐ **1.** Hyperalbuminemia.
☐ **2.** Thrombocytopenia.
☐ **3.** Hypokalemia.
☐ **4.** Hypercalcemia.

35. A client with Crohn's disease has concentrated urine; decreased urinary output; dry skin with decreased turgor; hypotension; and weak, thready pulses. The nurse should do which of the following **first**?
☐ **1.** Encourage the client to drink at least 1,000 mL/day.
☐ **2.** Provide parenteral rehydration therapy prescribed by the physician.
☐ **3.** Turn and reposition every 2 hours.
☐ **4.** Monitor vital signs every shift.

36. The nurse is developing a plan of care for a client with Crohn's disease who is receiving total parenteral nutrition (TPN). Which of the following interventions should the nurse include? Select all that apply.
☐ **1.** Monitoring vital signs once a shift.
☐ **2.** Weighing the client daily.
☐ **3.** Changing the central venous line dressing daily.
☐ **4.** Monitoring the IV infusion rate hourly.
☐ **5.** Taping all IV tubing connections securely.

37. Which of the following should be a priority focus of care for a client experiencing an exacerbation of Crohn's disease?
☐ **1.** Encouraging regular ambulation.
☐ **2.** Promoting bowel rest.
☐ **3.** Maintaining current weight.
☐ **4.** Decreasing episodes of rectal bleeding.

The Client with an Intestinal Obstruction

38. A nurse is assessing a client who has been admitted with a diagnosis of an obstruction in the small intestine. The nurse should assess the client for which of the following? Select all that apply.

☐ **1.** Projectile vomiting.
☐ **2.** Significant abdominal distention.
☐ **3.** Copious diarrhea.
☐ **4.** Rapid onset of dehydration.
☐ **5.** Increased bowel sounds.

39. A client is admitted with a bowel obstruction. The client has nausea, vomiting, and crampy abdominal pain. The physician has written the following prescriptions: for the client to be up ad lib, have narcotics for pain, and have a nasogastric tube inserted if needed, and for IV Ringer's lactate and hyperalimentation fluids. The nurse should do the following in order of priority from **first** to **last**:

1. Assist with ambulation to promote peristalsis.

2. Insert a nasogastric tube.

3. Administer IV Ringer's lactate.

4. Start an infusion of hyperalimentation fluids.

40. The physician prescribes intestinal decompression with a Cantor tube for a client with an intestinal obstruction. In order to determine effectiveness of intestinal decompression, the nurse should evaluate the client to determine if:

☐ **1.** Intestinal fluid and gas have been removed.
☐ **2.** The client has had a bowel movement.
☐ **3.** The client's urinary output is adequate.
☐ **4.** The client can sit up without pain.

41. After insertion of a nasoenteric tube, the nurse should place the client in which position?

☐ **1.** Supine.
☐ **2.** Right side-lying.
☐ **3.** Semi-Fowler's.
☐ **4.** Upright in a bedside chair.

42. The nurse preparing a client for insertion of a nasoduodenal tube should teach which of the following? Select all that apply.

☐ **1.** The nose and throat will be numbed with a viscous anesthetic.
☐ **2.** The tube will be placed at the bedside.
☐ **3.** X-rays with the use of a contrast dye will be used to verify placement.
☐ **4.** The client will be closely monitored for 30 minutes following the procedure.
☐ **5.** The tube will be taped to the nose.

43. The client with an intestinal obstruction continues to have acute pain even though the nasoenteric tube is patent and draining. Which action by the nurse would be **most** appropriate?

☐ **1.** Reassure the client that the nasoenteric tube is functioning.
☐ **2.** Assess the client for a rigid abdomen.
☐ **3.** Administer an opioid as prescribed.
☐ **4.** Reposition the client on the left side.

44. Before abdominal surgery for an intestinal obstruction, the nurse monitors the client's urine output and finds that the total output for the past 2 hours was 35 mL. The nurse then assesses the client's total intake and output over the last 24 hours and notes 2,000 mL of IV fluid for intake, 500 mL of drainage from the nasogastric tube, and 700 mL of urine for a total output of 1,200 mL. These findings indicate which of the following?

☐ **1.** Decreased renal function.
☐ **2.** Inadequate pain relief.
☐ **3.** Extension of the obstruction.
☐ **4.** Inadequate fluid replacement.

The Client with an Ileostomy

45. The nurse is teaching the client how to care for an ileostomy. The client asks the nurse how long to wear the pouch before changing it. The nurse should tell the client which of the following?

☐ **1.** "The pouch is changed only when it leaks."
☐ **2.** "You can wear the pouch for about 4 to 7 days."
☐ **3.** "You should change the pouch every evening before bedtime."
☐ **4.** "It depends on your activity level and your diet."

46. A client is scheduled for an ileostomy. Which of the following interventions would be **most** helpful in preparing the client psychologically for the surgery?

☐ **1.** Include family members in preoperative teaching sessions.
☐ **2.** Encourage the client to ask questions about managing an ileostomy.
☐ **3.** Provide a brief, thorough explanation of all preoperative and postoperative procedures.
☐ **4.** Invite a member of the ostomy association to visit the client.

47. The nurse should instruct a client who is scheduled for an ileostomy to do which of the following 2 weeks before surgery?

☐ **1.** Stop taking drugs that will interfere with clotting (aspirin, ibuprofen).
☐ **2.** Follow a low-residue diet.
☐ **3.** Abstain from having sex.
☐ **4.** Wear a mask when in public to prevent infection.

48. Immediately after having surgery to create an ileostomy, which goal has the **highest** priority?

☐ **1.** Providing relief from constipation.
☐ **2.** Assisting the client with self-care activities.
☐ **3.** Maintaining fluid and electrolyte balance.
☐ **4.** Minimizing odor formation.

49. The client asks the nurse, "Is it really possible to lead a normal life with an ileostomy?" Which action by the nurse would be the **most** effective to address this question?

☐ **1.** Have the client talk with a member of the clergy about these concerns.
☐ **2.** Tell the client to worry about those concerns after surgery.
☐ **3.** Arrange for a person with an ostomy to visit the client preoperatively.
☐ **4.** Notify the surgeon of the client's question.

50. Three weeks after the client has had an ileostomy, the nurse is following up with instruction about using a skin barrier around the stoma at all times. The client has been applying the skin barrier correctly when:

☐ **1.** There is no odor from the stoma.
☐ **2.** The client is adequately hydrated.
☐ **3.** There is no skin irritation around the stoma.
☐ **4.** The client only changes the ostomy pouch once a day.

51. The nurse should instruct the client with an ileostomy to report which of the following immediately?

☐ **1.** Passage of liquid stool from the stoma.
☐ **2.** Occasional presence of undigested food in the effluent.
☐ **3.** Absence of drainage from the ileostomy for 6 or more hours.
☐ **4.** Temperature of 99.8°F (37.7°C).

52. The nurse finds the client who has had an ileostomy crying. The client explains to the nurse, “I'm upset because I know I won't be able to have children now that I have an ileostomy.” Which of the following would be the **best** response for the nurse?

☐ **1.** “Many women with ileostomies decide to adopt. Why don't you consider that option?”
☐ **2.** “Having an ileostomy does not necessarily mean that you can't bear children. Let's talk about your concerns.”
☐ **3.** “I can understand your reasons for being upset. Having children must be important to you.”
☐ **4.** “I'm sure you will adjust to this situation with time. Try not to be too upset.”

53. Which of the following statements about ileostomy care indicates that the client understands the discharge instruction?

☐ **1.** “I should be able to resume weight lifting in 2 weeks.”
☐ **2.** “I can return to work in 2 weeks.”
☐ **3.** “I need to drink at least 3,000 mL a day of fluid.”
☐ **4.** “I will need to avoid getting my stoma wet while bathing.”

54. A client with a well-managed ileostomy has sudden onset of abdominal cramps, vomiting, and watery discharge from the ileostomy. The nurse should:

☐ **1.** Tell the client to take an antiemetic.
☐ **2.** Encourage the client to increase fluid intake to 3 L/day to replace fluid lost through vomiting.
☐ **3.** Instruct the client to take 30 mL of milk of magnesia to stimulate a bowel movement.

☐ **4.** Notify the physician.

The Client Receiving Total Parenteral Nutrition

55. The nurse is changing the subclavian dressing of a client who is receiving total parenteral nutrition. When assessing the catheter insertion site, the nurse notes the presence of yellow drainage from around the sutures that are anchoring the catheter. Which action should the nurse take **first**?

☐ **1.** Clean the insertion site and redress the area.
☐ **2.** Document assessment findings in the client's chart.
☐ **3.** Obtain a culture specimen of the drainage.
☐ **4.** Notify the physician.

56. Total parenteral nutrition (TPN) is prescribed for a client with who has recently had a small and large bowel resection, and who is currently not taking anything by mouth. The nurse should:

☐ **1.** Administer TPN through a nasogastric or gastrostomy tube.
☐ **2.** Handle TPN using strict aseptic technique.
☐ **3.** Auscultate for the presence of bowel sounds prior to administering TPN.
☐ **4.** Designate a peripheral intravenous (IV) site for TPN administration.

57. Using a sliding-scale schedule, the nurse is preparing to administer an evening dose of regular insulin to a client who is receiving total parenteral nutrition (TPN). Which action is **most** appropriate for the nurse to take to determine the amount of insulin to give?

☐ **1.** Base the dosage on the glucometer reading of the client's glucose level obtained immediately before administering the insulin.
☐ **2.** Base the dosage on the fasting blood glucose level obtained earlier in the day.
☐ **3.** Calculate the amount of TPN fluid the client has received since the last dose of insulin and adjust the dosage accordingly.
☐ **4.** Assess the client's dietary intake for the evening meal and snack and adjust the dosage accordingly.

58. A client with inflammatory bowel disease is receiving total parenteral nutrition (TPN). The basic component of the client's TPN solution is **most** likely to be:

☐ **1.** An isotonic dextrose solution.
☐ **2.** A hypertonic dextrose solution.

☐ **3.** A hypotonic dextrose solution.
☐ **4.** A colloidal dextrose solution.

59. A nurse is assisting with the removal a of central venous access device (CVAD). The nurse should instruct the client to:
☐ **1.** Turn to the left side.
☐ **2.** Exhale slowly and evenly.
☐ **3.** Turn to the right side.
☐ **4.** Take a deep breath and hold it.

60. TPN is prescribed for a client with Crohn's disease. Which of the following indicate the TPN solution is having an intended outcome?
☐ **1.** There is increased cell nutrition.
☐ **2.** The client does not have metabolic acidosis.
☐ **3.** The client is hydrated.
☐ **4.** The client is in a negative nitrogen balance.

61. A client is receiving total parenteral nutrition (TPN) solution. The nurse should assess a client's ability to metabolize the TPN solution adequately by monitoring the client for which of the following signs?
☐ **1.** Tachycardia.
☐ **2.** Hypertension.
☐ **3.** Elevated blood urea nitrogen concentration.
☐ **4.** Hyperglycemia.

62. Which of the following interventions should the nurse include in the client's plan of care to prevent complications associated with TPN administered through a central line?
☐ **1.** Use a clean technique for all dressing changes.
☐ **2.** Tape all connections of the system.
☐ **3.** Encourage bed rest.
☐ **4.** Cover the insertion site with a moisture-proof dressing.

63. The nurse notes that the sterile, occlusive dressing on the central catheter insertion site of a client receiving total parenteral nutrition (TPN) is moist. The client is breathing easily with no abnormal breath sounds. The nurse should do the following in order of what priority from first to last?

1. Change dressing per institutional policy.

2. Culture drainage at insertion site.

3. Notify physician.

4. Position rolled towel under client's back, parallel to the spine.

64. The nurse administers fat emulsion solution during TPN as prescribed based on the understanding that this type of solution:

☐ **1.** Provides essential fatty acids.
☐ **2.** Provides extra carbohydrates.
☐ **3.** Promotes effective metabolism of glucose.
☐ **4.** Maintains a normal body weight.

65. Which of the following should the nurse interpret as an indication of a complication after the first few days of TPN therapy?

☐ **1.** Glycosuria.
☐ **2.** A 1- to 2-lb (0.45- to 0.9-kg) weight gain.
☐ **3.** Decreased appetite.
☐ **4.** Elevated temperature.

66. Which of the following adverse effects occur when there is too rapid an infusion of TPN solution?

☐ **1.** Negative nitrogen balance.
☐ **2.** Circulatory overload.
☐ **3.** Hypoglycemia.
☐ **4.** Hypokalemia.

The Client with Diverticular Disease

67. Following the acute stage of diverticulosis, which foods should the nurse encourage a client to incorporate into the diet? Select all that apply.

☐ **1.** Bran cereal.
☐ **2.** Broccoli.
☐ **3.** Tomato juice.
☐ **4.** Navy beans.
☐ **5.** Cheese.

68. Which of the following laboratory findings are expected when a client has diverticulitis?

☐ **1.** Elevated red blood cell count.
☐ **2.** Decreased platelet count.
☐ **3.** Elevated white blood cell count.
☐ **4.** Elevated serum blood urea nitrogen concentration.

69. A barium enema is not prescribed as a diagnostic test for a client with diverticulitis because a barium enema:

☐ **1.** Can perforate an intestinal abscess.
☐ **2.** Would greatly increase the client's pain.
☐ **3.** Is of minimal diagnostic value in diverticulitis.
☐ **4.** Is too lengthy a procedure for the client to tolerate.

70. The nurse should teach the client with diverticulitis to integrate which of the following into a daily routine at home?

☐ **1.** Using enemas to relieve constipation.
☐ **2.** Decreasing fluid intake to increase the formed consistency of the stool.
☐ **3.** Eating a high-fiber diet when symptomatic with diverticulitis.
☐ **4.** Refraining from straining and lifting activities.

71. After instructing a client with diverticulosis about appropriate self-care activities, which of the following client comments indicate effective teaching? Select all that apply.

☐ **1.** “With careful attention to my diet, my diverticulosis can be cured.”
☐ **2.** “Using a cathartic laxative weekly is okay to control bowel movements.”
☐ **3.** “I should follow a diet that's high in fiber.”
☐ **4.** “It is important for me to drink at least 2,000 mL of fluid every day.”
☐ **5.** “I should exercise regularly.”

72. A client with diverticular disease is receiving psyllium hydrophilic

mucilloid (Metamucil). The drug has been effective when the client:

☐ **1.** Passes stool without cramping.
☐ **2.** Does not have diarrhea.
☐ **3.** Is no longer anxious.
☐ **4.** Does not expel gas.

73. A client with diverticulitis has developed peritonitis following diverticular rupture. When assessing the client, the nurse should do which of the following? Select all that apply.

☐ **1.** Percuss the abdomen to note resonance and tympany.
☐ **2.** Percuss the liver to note lack of dullness.
☐ **3.** Monitor the vital signs for fever, tachypnea, and bradycardia.
☐ **4.** Assess presence of polyphagia and polydipsia.
☐ **5.** Auscultate bowel sounds to note frequency.

The Client with Appendicitis

74. A nurse is providing wound care to a client 1 day following an appendectomy. A drain was inserted into the incisional site during surgery. Which action should the nurse perform when providing wound care?

☐ **1.** Remove the dressing and leave the incision open to air.
☐ **2.** Remove the drain if wound drainage is minimal.
☐ **3.** Gently irrigate the drain to remove exudate.
☐ **4.** Clean the area around the drain moving away from the drain.

75. The nurse is admitting a client with acute appendicitis to the emergency department. The client has abdominal pain of 10 on a pain scale of 1 to 10. The client will be going to surgery as soon as possible. The nurse should:

☐ **1.** Contact the surgeon to request a prescription for a narcotic for the pain.
☐ **2.** Maintain the client in a recumbent position.
☐ **3.** Place the client on nothing-by-mouth (NPO) status.
☐ **4.** Apply heat to the abdomen in the area of the pain.

76. A client with acute appendicitis develops a fever, tachycardia, and hypotension. Based on these findings, the nurse should further assess the client for which of the following complications?

☐ **1.** Deficient fluid volume.
☐ **2.** Intestinal obstruction.
☐ **3.** Bowel ischemia.
☐ **4.** Peritonitis.

77. Postoperative nursing care for a client after an appendectomy should include which of the following?

☐ **1.** Administering sitz baths four times a day.
☐ **2.** Noting the first bowel movement after surgery.
☐ **3.** Limiting the client's activity to bathroom privileges.
☐ **4.** Measuring abdominal girth every 2 hours.

78. A client who had an appendectomy for a perforated appendix returns from surgery with a drain inserted in the incisional site. The purpose of the drain is to:

☐ **1.** Provide access for wound irrigation.
☐ **2.** Promote drainage of wound exudates.
☐ **3.** Minimize development of scar tissue.
☐ **4.** Decrease postoperative discomfort.

The Client with an Inguinal Hernia

79. A client who has a history of an inguinal hernia is admitted to the hospital with sudden, severe abdominal pain, vomiting, and abdominal distention. The nurse should assess the client further for which of the following complications?

☐ **1.** Peritonitis.
☐ **2.** Incarcerated hernia.
☐ **3.** Strangulated hernia.
☐ **4.** Intestinal perforation.

80. A male client has just had an inguinal herniorrhaphy. Which of the following instructions would be **most** appropriate to include in the discharge plan?

☐ **1.** Turning, coughing, and deep breathing every 2 hours.
☐ **2.** Applying an ice bag to the scrotum.
☐ **3.** Applying a truss before the client ambulates.
☐ **4.** Maintaining a high Fowler's position while resting.

81. After an inguinal herniorrhaphy, the nurse should assess the male client carefully for which of the following likely complications?

☐ **1.** Hypostatic pneumonia.
☐ **2.** Deep vein thrombosis.
☐ **3.** Paralytic ileus.
☐ **4.** Urine retention.

Managing Care Quality and Safety

82. The nurse is taking care of a client with *Clostridium difficile* (*C. difficile*). The nurse should do which of the following to prevent the spread of infection? Select all that apply.

☐ **1.** Wear a particulate respirator.
☐ **2.** Wear sterile gloves when providing care.
☐ **3.** Cleanse hands with alcohol-based hand sanitizer.
☐ **4.** Wash hands with soap and water.
☐ **5.** Wear a protective gown when in the client's room.

83. The nurse discovers that a client's TPN solution was running at an incorrect rate and is now 2 hours behind schedule. Which action is most appropriate for the nurse to take to correct the problem?

☐ **1.** Readjust the solution to infuse the desired amount.
☐ **2.** Continue the infusion at the current rate, but run the next bottle at an increased rate.
☐ **3.** Double the infusion rate for 2 hours.
☐ **4.** Notify the physician.

84. The nurse is to administer ampicillin 500 mg orally to a client with a ruptured appendix. The nurse checks the capsule in the client's medication box, which is located inside of the client's room. The dosage of the medication is not labeled, but the nurse recognizes the color and shape of the capsule. The nurse should next:

☐ **1.** Administer the medication to maintain blood levels of the drug.
☐ **2.** Ask another registered nurse to verify that the capsule is ampicillin.
☐ **3.** Contact the pharmacy to bring a properly labeled medication.
☐ **4.** Notify the unit manager to report the problem.

85. On the second day following an abdominal perineal resection, the nurse notes that the wound edges are not approximated and one-half the incision has torn apart. The nurse should take what action **first**?

☐ **1.** Flush the wound with sterile water.
☐ **2.** Apply an abdominal binder.
☐ **3.** Cover the wound with a sterile dressing moistened with normal saline.
☐ **4.** Apply strips of tape.

86. A client has received numerous different antibiotics and now is experiencing diarrhea. The physician has prescribed a transmission-based

precaution. Which of the following types of precautions would be most appropriate for all personnel to use?

☐ **1.** Airborne precautions.
☐ **2.** Contact precautions.
☐ **3.** Droplet precautions.
☐ **4.** Needlestick precautions.

87. The physician has prescribed ciprofloxacin (Cipro) for a client who takes warfarin (Coumadin). The nurse should instruct the client to do which of the following while taking this drug? Select all that apply.

☐ **1.** Split the tablets and stir them in food.
☐ **2.** Avoid exposure to sunlight.
☐ **3.** Eliminate caffeine from the diet.
☐ **4.** Report unusual bleeding.
☐ **5.** Increase fluid intake to 3,000 mL/day.

Answers, Rationales, and Test-Taking Strategies

The answers and rationales for each question follow below, along with keys ( *) to the client need (CN) and cognitive level (CL) for each question. As you check your answers, use the* ***Content Mastery and Test-Taking Skill Self-Analysis*** *worksheet (tear-out worksheet in back of book) to identify the reason(s) for not answering the questions correctly. For additional information about test-taking skills and strategies for answering questions, refer to pages 10–21 and pages 31–32 in Part 1 of this book.*

The Client with Cancer of the Colon

1. 2. Annual fecal testing for occult blood should begin at age 50. Annual digital rectal examinations are recommended in men beginning at age 50 to screen for prostate cancer. Baseline barium enemas or colonoscopies are recommended at age 50. Baseline barium enemas and colonoscopies are not performed on individuals in their 40s unless they experience signs or symptoms that indicate the need for such diagnostic testing, or are considered to be at high risk.

 CN: Health promotion and maintenance; CL: Apply

2. 4. It is important for the nurse to recognize that individuals go through a grieving process when adjusting to a colostomy. The nurse should be accepting and provide the client with opportunities to share her concerns and feelings when she is ready. Lecturing the client about the need to learn how to care for the colostomy is not productive, nor is attempting to shame her into caring for the colostomy by implying her husband will have to provide the care if she does not. It is not possible for the nurse to understand what the client is feeling.

 CN: Psychosocial adaptation; CL: Synthesize

3. 4. A history of inflammatory bowel disease is a risk factor for colon cancer. Other risk factors include age (older than 40 years), history of familial polyposis, colorectal polyps, and high-fat or low-fiber diet.

 CN: Reduction of risk potential; CL: Analyze

4. 1, 2, 3, 4, 5. Colorectal cancer may be asymptomatic, or symptoms vary according to the location of the tumor and the extent of involvement. Fatigue,

weight loss, and iron deficiency anemia, even without rectal bleeding or bowel changes, should prompt investigation for colorectal cancer. Fecal occult blood testing commonly reveals evidence of carcinoma when the client is otherwise asymptomatic.

 CN: Health promotion and maintenance; CL: Create

5. 1. After a barium enema, a laxative is ordinarily prescribed. This is done to promote elimination of the barium. Retained barium predisposes the client to constipation and fecal impaction. Anticholinergic drugs decrease gastrointestinal motility. Antacids decrease gastric acid secretion. Demulcents soothe mucous membranes of the gastrointestinal tract and are used to treat diarrhea.

 CN: Reduction of risk potential; CL: Synthesize

6. 3. A sign indicating that a client's colostomy is open and ready to function is passage of feces and flatus. When this occurs, gastric suction is ordinarily discontinued, and the client is allowed to start taking fluids and food orally. Absence of bowel sounds would indicate that the tube should remain in place because peristalsis has not yet returned.

7. 2. Appropriate nursing interventions after an abdominal-perineal resection with a colostomy include assisting the client with warm sitz baths three to four times a day to clean the perineal incision. The client will be more comfortable assuming a side-lying position because of the perineal incision. It would be inappropriate to administer milk of magnesia to stimulate colostomy activity. Stool passage will begin as peristalsis returns. It is not necessary or desirable to change the ostomy pouch daily to assess the stoma. The ostomy pouch should be transparent to allow easy observation of the stoma and drainage.

 CN: Physiological adaptation; CL: Synthesize

8. 2. A dark red to purple stoma indicates inadequate blood supply. Mild edema and slight oozing of blood are normal in the early postoperative period. The colostomy would typically not begin functioning until 2 to 4 days after surgery.

 CN: Physiological adaptation; CL: Analyze

9. 2. A client who displays interest in the procedure and asks about supplies used for dressings may be ready to participate in self-care. Inquiring about the physician's visit, discussing news events, and discussing a dressing change are behaviors that avoid the subject of the colostomy.

 CN: Basic care and comfort; CL: Analyze

10. 1. Stomahesive is effective for protecting the skin around a colostomy to

keep the skin healthy and prevent skin irritation from stoma drainage. Petroleum jelly, cornstarch, and antiseptic creams do not protect the skin adequately and may prevent an adequate seal between the skin and the colostomy bag.

 CN: Basic care and comfort; CL: Apply

11. 1. Sitz baths are an effective way to clean the operative area after an abdominal-perineal resection. Sitz baths bring warmth to the area, improve circulation, and promote healing and cleanliness. Most clients find them comfortable and relaxing. Between sitz baths, the area should be kept clean and dry. A shower will not adequately clean the perineal area. Moist dressings may promote wound contamination and delay healing. A heating pad applied to the area for longer than 20 minutes may cause excessive vasodilation, leading to congestion and discomfort.

 CN: Physiological adaptation; CL: Synthesize

12. 3. It is best to adjust the diet of a client with a colostomy in a manner that suits the client rather than trying special diets. Severe restriction of roughage is not recommended. The client is encouraged to drink 2 to 3 L of fluid per day. A high-fiber diet may produce loose stools.

 CN: Basic care and comfort; CL: Create

13. 1. An expected outcome is that the client will maintain a fluid intake of 3,000 mL/day unless contraindicated. There is no need to eliminate fiber from the diet; the client can eat whatever foods are desired, avoiding those that are bothersome. Physical activity does not need to be limited to light exercise. The client can resume normal activities as tolerated, usually within 6 to 8 weeks. The client's sexual activity may be affected, but it does not need to be diminished.

 CN: Physiological adaptation; CL: Evaluate

14. 1, 3. Ascites limits the movement of the diaphragm leading to respiratory distress. Fluid shift from the intravascular space precipitates fluid and electrolyte imbalances. Weight gain is not a direct consequence of ascites, but weight loss may result in decreased albumin levels. Decreased albumin in the intravascular space results in decreased oncotic pressure precipitating movement of fluid out of space. A client with ascites is not at increased risk for infection unless a peritoneal tap is done to remove fluid. The risk of bleeding is a result of alterations in liver enzymes affecting coagulation.

 CN: Physiological adaptation; CL: Analyze

The Client with Hemorrhoids

15. 2. Hemorrhoids are associated with prolonged sitting or standing, portal hypertension, chronic constipation, and prolonged increased intra-abdominal pressure, as associated with pregnancy and the strain of vaginal delivery. Her job as a schoolteacher does not require prolonged sitting or standing. Age and leg varicosities are not related to the development of hemorrhoids.

 CN: Reduction of risk potential; CL: Analyze

16. 3. Positioning in the early postoperative phase should avoid stress and pressure on the operative site. The prone and side-lying positions are ideal from a comfort perspective. A high Fowler's or supine position will place pressure on the operative site and is not recommended. There is no need for Trendelenburg's position.

 CN: Physiological adaptation; CL: Synthesize

17. 1. Applying heat during the immediate postoperative period may cause hemorrhage at the surgical site. Moist heat may relieve rectal spasms after bowel movements. Urine retention caused by reflex spasm may also be relieved by moist heat. Increasing fiber and fluid in the diet can help prevent constipation.

 CN: Physiological adaptation; CL: Apply

18. 3. Adequate cleaning of the anal area is difficult but essential. After rectal surgery, sitz baths assist in this process, so the client should take a sitz bath after a bowel movement. Other times are dictated by client comfort.

 CN: Reduction of risk potential; CL: Evaluate

The Client with Inflammatory Bowel Disease

19. 2. In long-term sulfasalazine therapy, the client may develop folic acid deficiency. The client can take folic acid supplements, but the nurse should also encourage the client to increase the intake of folic acid in his diet. Green, leafy vegetables are a good source of folic acid. Citrus fruits, eggs, and milk products are not good sources of folic acid.

 CN: Pharmacological and parenteral therapies; CL: Apply

20. 2, 5. The nurse should consider client needs and scope of practice when assigning staff to provide care. The client who is recovering from inguinal hernia repair surgery and the client who is experiencing an exacerbation of ulcerative colitis are appropriate clients to assign to a licensed practical nurse as the care they require falls within the scope of practice for a licensed practical nurse. It is not within the scope of practice for the licensed practical nurse to administer TPN, insert nasoenteric tubes, or provide client teaching related to medications.

CN: Management of care; CL: Synthesize

21. 1. Stressful and emotional events have been clearly linked to exacerbations of ulcerative colitis, although their role in the etiology of the disease has been disproved. A modified vegetarian diet or an exercise program is an unlikely cause of the exacerbation.

CN: Physiological adaptation; CL: Apply

22. 31 gtt/min

To administer IV fluids at 125 mL/h using tubing that has a drip factor of 15 gtt/mL, the nurse should use the following formula:

$$125 \text{ mL}/60 \text{ min} \times 15 \text{ gtt}/1 \text{ mL} = 31 \text{ gtt/min}$$

CN: Pharmacological and parenteral therapies; CL: Apply

23. 2, 4, 5. The nurse can delegate the following basic care activities to the unlicensed assistant: providing skin care following bowel movements, maintaining intake and output records, and obtaining the client's weight. Assessing the client's bowel sounds and evaluating the client's response to medication are registered nurse activities that cannot be delegated.

CN: Management of care; CL: Synthesize

24. 2. Diarrhea is the primary symptom in an exacerbation of ulcerative colitis, and decreasing the frequency of stools is the first goal of treatment. The other goals are ongoing and will be best achieved by halting the exacerbation. The client may receive antidiarrheal agents, antispasmodic agents, bulk hydrophilic agents, or anti-inflammatory drugs.

CN: Physiological adaptation; CL: Synthesize

25. 2. Although modified bed rest does help conserve energy and promotes comfort, its primary purpose in this case is to help reduce the hypermotility of the colon. Remaining on bed rest does not by itself reduce stress, and if the client is having stress, the nurse can plan with the client to use strategies that will help the client manage the stress.

CN: Physiological adaptation; CL: Evaluate

26. 3. Excessive diarrhea causes significant depletion of the body's stores of sodium and potassium as well as fluid. The client should be closely monitored for hypokalemia and hyponatremia. Ulcerative colitis does not place the client at risk for heart failure, deep vein thrombosis, or hypocalcemia.

CN: Reduction of risk potential; CL: Analyze

27. 4. It is not uncommon for clients with ulcerative colitis to become apprehensive and have difficulty coping with the frequency of stools and the presence of abdominal cramping. During these acute exacerbations, clients need emotional support and encouragement to verbalize their feelings about their chronic health concerns and assistance in developing effective coping methods. The client has not expressed feelings of fatigue or isolation or demonstrated disturbed thought processes.

CN: Psychosocial adaptation; CL: Analyze

28. 2. Steroids are effective in management of the acute symptoms of ulcerative colitis. Steroids do not cure ulcerative colitis, which is a chronic disease. Long-term use is not effective in prolonging the remission and is not advocated. Clients should be assessed carefully for side effects related to steroid therapy, but the benefits of short-term steroid therapy usually outweigh the potential adverse effects.

CN: Pharmacological and parenteral therapies; CL: Apply

29. 3. Food will be withheld from the client with severe symptoms of ulcerative colitis to rest the bowel. To maintain the client's nutritional status, the client will be started on TPN. Enteral feedings or dividing the diet into six small meals does not allow the bowel to rest. A high-calorie, high-protein diet will worsen the client's symptoms.

CN: Physiological adaptation; CL: Apply

30. 1, 2, 4. Sulfasalazine may cause dizziness, and the nurse should caution the client to avoid driving or other activities that require alertness until response to medication is known. If symptoms of acute intolerance (cramping, acute abdominal pain, bloody diarrhea, fever, headache, rash) occur, the client should discontinue therapy and notify the health care provider immediately. Fluid intake should be sufficient to maintain a urine output of at least 1,200 to 1,500 mL daily to prevent crystalluria and stone formation. The nurse can also inform the client that this medication may cause orange-yellow discoloration of urine and skin, which is not significant and does not require the client to stop taking the medication. The nurse should instruct the client to take missed doses as soon as remembered unless it is almost time for the next dose.

CN: Pharmacological and parenteral therapies; CL: Synthesize

31. 3. Adequate fluid intake of at least eight glasses a day prevents crystalluria and stone formation during sulfasalazine therapy. Sulfasalazine can cause gastrointestinal distress and is best taken after meals and in equally

divided doses. Sulfasalazine gives alkaline urine an orange-yellow color, but it is not necessary to stop the drug when this occurs.

CN: Pharmacological and parenteral therapies; CL: Synthesize

32. 4 tablets

To administer 2 g sulfasalazine, the nurse will need to administer four tablets. The following formula is used to calculate the correct dosage:

$$1\text{ g}/1{,}000\text{ mg} = 2\text{ g}/X\text{ mg}$$

The first step is to convert grams into milligrams: $X = 2{,}000$ mg

$$2{,}000\text{ mg}/X\text{ tablets} = 500\text{ mg}/1\text{ tablet}$$

Then, $X = 4$ tablets

CN: Pharmacological and parenteral therapies; CL: Apply

33. 2. Clients with ulcerative colitis should follow a well-balanced high-protein, high-calorie, low-residue diet, avoiding such high-residue foods as whole-wheat grains, nuts, and raw fruits and vegetables. Clients with ulcerative colitis need more protein for tissue healing and should avoid excess roughage. There is no need for clients with ulcerative colitis to follow low-sodium diets.

CN: Basic care and comfort; CL: Apply

34. 3. Hypokalemia is the most expected laboratory finding owing to the diarrhea. Hypoalbuminemia can also occur in Crohn's disease; however, the client's potassium level is of greater importance at this time because a low potassium level can cause cardiac arrest. Anemia is an expected development, but thrombocytopenia is not. Calcium levels are not affected.

CN: Physiological adaptation; CL: Analyze

35. 2. Initially, the extracellular fluid (ECF) volume with isotonic IV fluids until adequate circulating blood volume and renal perfusion are achieved. Vital signs should be monitored as parenteral and oral rehydration are achieved. Oral fluid intake should be greater than 1,000 mL/day. Turning and repositioning the client at regular intervals aids in the prevention of skin breakdown, but it is first necessary to rehydrate this client.

CN: Physiological adaptation; CL: Synthesize

36. 2, 4, 5. When caring for a client who is receiving TPN, the nurse should plan to weigh the client daily, monitor the IV fluid infusion rate hourly (even when using an IV fluid pump), and securely tape all IV tubing connections to prevent disconnections. Vital signs should be monitored at least every 4 hours to facilitate early detection of complications. It is recommended that the IV dressing be changed once or twice per week or when it becomes soiled, loose, or

wet.

CN: Pharmacological and parenteral therapies; CL: Synthesize

37. 2. A priority goal of care during an acute exacerbation of Crohn's disease is to promote bowel rest. This is accomplished through decreasing activity, encouraging rest, and initially placing client on nothing-by-mouth status while maintaining nutritional needs parenterally. Regular ambulation is important, but the priority is bowel rest. The client will probably lose some weight during the acute phase of the illness. Diarrhea is nonbloody in Crohn's disease, and episodes of rectal bleeding are not expected.

CN: Physiological adaptation; CL: Synthesize

The Client with an Intestinal Obstruction

38. 1, 4, 5. Signs and symptoms of intestinal obstructions in the small intestine may include projectile vomiting and rapidly developing dehydration and electrolyte imbalances. The client will also have increased bowel sounds, usually high-pitched and tinkling. The client would not normally have diarrhea and would have minimal abdominal distention. Pain is intermittent, being relieved by vomiting. Intestinal obstructions in the large intestine usually evolve slowly, produce persistent pain, and vomiting is less common. Clients with a large-intestine obstruction may develop obstipation and significant abdominal distention.

CN: Physiological adaptation; CL: Analyze

39.

1. Assist with ambulation to promote peristalsis.
2. Administer Ringer's Lactate.
3. Insert a nasogastric tube.
4. Start an infusion of hyperalimentation fluids.

The nurse should first help the client ambulate to try to induce peristalsis; this may be effective and require the least amount of invasive procedures. Next, the nurse should initiate IV fluid therapy to correct fluid and electrolyte

imbalances (sodium and potassium) with Ringer's Lactate to correct interstitial fluid deficit. Nasogastric (NG) decompression of GI tract to reduce gastric secretions and nasointestinal tubes may also be used as necessary. Lastly, hyperalimentation can be used to correct protein deficiency from chronic obstruction, paralytic ileus, or infection.

 CN: Physiological adaptation; CL: Synthesize

40. 1. Intestinal decompression is accomplished with a Cantor, Harris, or Miller-Abbott tube. These 6- to 10-foot (180 to 300 cm) tubes are passed into the small intestine to the obstruction. They remove accumulated fluid and gas, relieving the pressure. The client will not have an adequate bowel movement until the obstruction is removed. The pressure from the distended intestine should not obstruct urinary output. While the client may be able to more easily sit up, and the pain caused by the intestinal pressure will be less, these are not the primary indicators for successful intestinal decompression.

 CN: Physiological adaptation; CL: Evaluate

41. 2. The client is placed in a right side-lying position to facilitate movement of the mercury-weighted tube through the pyloric sphincter. After the tube is in the intestine, the client is turned from side to side or encouraged to ambulate to facilitate tube movement through the intestinal loops. Placing the client in the supine or semi-Fowler's position, or having the client sitting out of bed in a chair will not facilitate tube progression.

 CN: Reduction of risk potential; CL: Apply

42. 1, 3, 4, 5. A nasoduodenal tube is used primarily for feeding. The tube is inserted in endoscopy or radiology. Prior to insertion, the client will use viscous xylocaine to anesthetize the throat. The tube placement is verified by contrast x-rays, and the client is observed for 30 minutes after the insertion to be sure the client does not have an allergic reaction, puncture to the lung, or bleeding. The tube is taped to the nose.

 CN: Reduction of risk potential; CL: Apply

43. 2. The client's pain may be indicative of peritonitis, and the nurse should assess for signs and symptoms, such as a rigid abdomen, elevated temperature, and increasing pain. Reassuring the client is important, but accurate assessment of the client is essential. The full assessment should occur before pain relief measures are employed. Repositioning the client to the left side will not resolve the pain.

 CN: Reduction of risk potential; CL: Synthesize

44. 4. Considering that there is usually 1 L of insensible fluid loss, this client's output exceeds his intake (intake, 2,000 mL; output, 2,200 mL), indicating deficient fluid volume. The kidneys are concentrating urine in response to low circulating volume, as evidenced by a urine output of less than 30 mL/h. This indicates that increased fluid replacement is needed. Decreasing urine output can be a sign of decreased renal function, but the data provided suggest that the client is dehydrated. Pain does not affect urine output. There are no data to suggest that the obstruction has worsened.

 CN: Reduction of risk potential; CL: Analyze

The Client with an Ileostomy

45. 2. Unless the pouch leaks, the client can wear the ileostomy pouch for about 4 to 7 days. If leakage occurs, it is important to promptly change the pouch to avoid skin irritation. It is not necessary to change the pouch daily or in the evening. Diet and activity typically do not affect the schedule for changing the pouch.

 CN: Basic care and comfort; CL: Synthesize

46. 3. Providing explanations of preoperative and postoperative procedures helps the client prepare and understand what to expect. It also provides an opportunity for the client to share concerns. Including family members in the teaching sessions is beneficial but does not focus on the client's psychological preparation. Encouraging the client to ask questions about managing the ileostomy may be rushing the client psychologically into accepting the change in body image and function. The client may need time to first handle the stress of surgery and then observe the care of the ileostomy by others before it is appropriate to begin discussing self-management. The nurse should gently explore whether the client is ready to ask questions about management throughout the hospitalization. The client should have the opportunity to express concerns and to agree to an ostomy association visitor before an invitation is extended.

 CN: Psychosocial adaptation; CL: Synthesize

47. 1. The nurse should instruct the client to stop taking drugs that would interfere with clotting, such as aspirin or ibuprofen. The client should follow a high-fiber diet with increased fluids during the 2-week preoperative period. It is not necessary to abstain from sex. It is not necessary to wear a mask to prevent infection, but the client should report any infection during the preoperative period to the health care provider.

CN: Pharmacological and parenteral therapies; CL: Apply

48. 3. A high-priority outcome after ileostomy surgery is the maintenance of fluid and electrolyte balance. The client will experience continuous liquid to semiliquid stools. The client should be engaged in self-care activities, and minimizing odor formation is important; however, these goals do not take priority over maintaining fluid and electrolyte balance.

CN: Physiological adaptation; CL: Synthesize

49. 3. If the client agrees, having a visit by a person who has successfully adjusted to living with an ileostomy would be the most helpful measure. This would let the client actually see that typical activities of daily living can be pursued postoperatively. Someone who has felt some of the same concerns can answer the client's questions. A visit from the clergy may be helpful to some clients but would not provide this client with the information sought. Disregarding the client's concerns is not helpful. Although the physician should know about the client's concerns, this in itself will not reassure the client about life after an ileostomy.

CN: Psychosocial adaptation; CL: Synthesize

50. 3. Because of high concentrations of digestive enzymes, ileostomy effluent is irritating to skin and can cause excoriation and ulceration. Some form of protection must be used to keep the effluent from contacting the skin. A skin barrier does not decrease odor formation; odor is controlled by diet. The barrier does not affect the client's hydration status, and the nurse can encourage the client to have an adequate daily intake of fluids. Pouches are usually worn for 4 to 7 days before being changed.

CN: Basic care and comfort; CL: Evaluate

51. 3. Any sudden decrease in drainage or onset of severe abdominal pain should be reported to the physician immediately because it could mean that an obstruction has developed. The ileostomy drains liquid stool at frequent intervals throughout the day. Undigested food may be present at times. A temperature of 99.8°F (37.7°C) is not necessarily abnormal or a cause for concern.

CN: Reduction of risk potential; CL: Synthesize

52. 2. The fact that the client has an ileostomy does not necessarily mean that she cannot get pregnant and bear children. It may be recommended, however, that the number of pregnancies be limited. Women of childbearing age should be encouraged to discuss their concerns with their physician. Discussing their concerns about sexual functioning and pregnancy will help decrease fears and

anxiety. Empathizing or telling the woman that she can adopt does not address her concerns. Her current fears may be based on erroneous understanding. Telling the client that she will adjust to the situation ignores her concerns.

 CN: Psychosocial adaptation; CL: Synthesize

53. 3. To maintain an adequate fluid balance, the client needs to drink at least 3,000 mL/day. Heavy lifting should be avoided; the physician will indicate when the client can participate in sports again. The client will not resume working as soon as 2 weeks after surgery. Water does not harm the stoma, so the client does not have to worry about getting it wet.

 CN: Physiological adaptation; CL: Evaluate

54. 4. Sudden onset of abdominal cramps, vomiting, and watery discharge with no stool from an ileostomy are likely indications of an obstruction. It is imperative that the physician examine the client immediately. Although the client is vomiting, the client should not take an antiemetic until the physician has examined the client. If an obstruction is present, ingesting fluids or taking milk of magnesia will increase the severity of symptoms. Oral intake is avoided when a bowel obstruction is suspected.

 CN: Reduction of risk potential; CL: Synthesize

The Client Receiving Total Parenteral Nutrition

55. 3. The nurse should first obtain a culture specimen. The presence of drainage is a potential indication of an infection and the catheter may need to be removed. A culture specimen should be obtained and sent for analysis so that treatment can be promptly initiated. Since removing the catheter will be required in the presence of an infection, the nurse would not clean and redress the area. After the culture report is obtained, the nurse should notify the physician and document all assessments and client care activities in the client's record.

 CN: Safety and infection control; CL: Synthesize

56. 2 Total parenteral nutrition (TPN) is a hypertonic, high-calorie, high-protein intravenous (IV) fluid that should be provided for clients who do not have functional gastrointestinal track motility, in order to better meet metabolic needs of the client, and to support optimal nutrition and healing. TPN is prescribed once daily, based on the client's current electrolyte and fluid balance, and must be handled with strict aseptic technique (due to the high glucose content, it is a perfect medium for bacterial growth). Also, because of the high tonicity, TPN must be administered through a central venous access, not a peripheral IV line. There is no specific need to auscultate for bowel sounds to

determine whether TPN can safely be administered.

CN: Pharmacological and parenteral therapies; CL: Synthesize

57. 1. When using a sliding-scale insulin schedule, the nurse obtains a glucometer reading of the client's blood glucose level immediately before giving the insulin and bases the dosage on those findings. The fasting blood glucose level obtained earlier in the day is not relevant to an evening sliding-scale insulin dosage. The nurse cannot calculate insulin dosage by assessing the amount of TPN intake or dietary intake.

CN: Pharmacological and parenteral therapies; CL: Synthesize

58. 2. The TPN solution is usually a hypertonic dextrose solution. The greater the concentration of dextrose in solution, the greater the tonicity. Hypertonic dextrose solutions are used to meet the body's calorie demands in a volume of fluid that will not overload the cardiovascular system. An isotonic dextrose solution (eg, 5% dextrose in water) or a hypotonic dextrose solution will not provide enough calories to meet metabolic needs. Colloids are plasma expanders and blood products and are not used in TPN.

CN: Pharmacological and parenteral therapies; CL: Apply

59. 4. The client should be asked to perform the Valsalva maneuver (take a deep breath and hold it) during insertion and removal of a CVAD. This increases central venous pressure during the procedure and prevents air embolism. Trendelenburg is the preferred position for CVAD insertion and removal. If not possible, supine position is sufficient for CVAD removal. The client should hold the breath, not exhale.

CN: Physiological integrity; CL: Apply

60. 1. The goal of TPN is to meet the client's nutritional needs. TPN is not used to treat metabolic acidosis; ketoacidosis can actually develop as a result of administering TPN. TPN is a hypertonic solution containing carbohydrates, amino acids, electrolytes, trace elements, and vitamins. It is not used to meet the hydration needs of clients. TPN is administered to provide a positive nitrogen balance.

CN: Pharmacological and parenteral therapies; CL: Evaluate

61. 4. During TPN administration, the client should be monitored regularly for hyperglycemia. The client may require small amounts of insulin to improve glucose metabolism. The client should also be observed for signs and symptoms of hypoglycemia, which may occur if the body overproduces insulin in response to a high glucose intake or if too much insulin is administered to help improve

glucose metabolism. Tachycardia or hypertension is not indicative of the client's ability to metabolize the solution. An elevated blood urea nitrogen concentration is indicative of renal status and fluid balance.

CN: Pharmacological and parenteral therapies; CL: Analyze

62. 2. Complications associated with administration of TPN through a central line include infection and air embolism. To prevent these complications, strict aseptic technique is used for all dressing changes, the insertion site is covered with an air-occlusive dressing, and all connections of the system are taped. Ambulation and activities of daily living are encouraged and not limited during the administration of TPN.

CN: Pharmacological and parenteral therapies; CL: Synthesize

63.

3. Notify physician.
4. Position rolled towel under client's back, parallel to the spine.
2. Culture drainage at insertion site.
1. Change dressing per institutional policy.

A potential complication of receiving TPN is leakage or catheter puncture; the nurse should first notify the physician and prepare for changing of the catheter. Next, if pneumothorax is suspected, position a rolled towel under the client's back. If there is drainage at the insertion site, the nurse should then obtain a culture from the drainage and lastly, change the dressing using sterile technique.

CN: Reduction of risk potential; CL: Synthesize

64. 1. The administration of fat emulsion solution provides additional calories and essential fatty acids to meet the body's energy needs. Fatty acids are lipids, not carbohydrates. Fatty acids do not aid in the metabolism of glucose. Although they are necessary for meeting the complete nutritional needs of the client, fatty acids do not necessarily help a client maintain normal body weight.

CN: Pharmacological and parenteral therapies; CL: Apply

65. 4. An elevated temperature can be an indication of an infection at the insertion site or in the catheter. Vital signs should be taken every 2 to 4 hours after initiation of TPN therapy to detect early signs of complications. Glycosuria is to be expected during the first few days of therapy until the pancreas adjusts by secreting more insulin. A gradual weight gain is to be expected as the client's nutritional status improves. Some clients experience a decreased appetite during TPN therapy.

 CN: Reduction of risk potential; CL: Analyze

66. 2. Too rapid infusion of a TPN solution can lead to circulatory overload. The client should be assessed carefully for indications of excessive fluid volume. A negative nitrogen balance occurs in nutritionally depleted individuals, not when TPN fluids are administered in excess. When TPN is administered too rapidly, the client is at risk for receiving an excess of dextrose and electrolytes. Therefore, the client is at risk for hyperglycemia and hyperkalemia.

 CN: Pharmacological and parenteral therapies; CL: Analyze

The Client with Diverticular Disease

67. 1, 2, 4. Clients with diverticulosis are encouraged to follow a high-fiber diet. Bran, broccoli, and navy beans are foods high in fiber. Tomato juice and cheese are low-residue foods.

 CN: Reduction of risk potential; CL: Apply

68. 3. Because of the inflammatory nature of diverticulitis, the nurse would anticipate an elevated white blood cell count. The remaining laboratory findings are not associated with diverticulitis. Elevated red blood cell counts occur in clients with polycythemia vera or fluid volume deficit. Decreased platelet counts can occur as a result of aplastic anemias or malignant blood disorders, as an adverse effect of some drugs, and as a result of some heritable conditions. Elevated serum blood urea nitrogen concentration is usually associated with renal conditions.

 CN: Reduction of risk potential; CL: Analyze

69. 1. Barium enemas and colonoscopies are contraindicated in clients with acute diverticulitis because they can lead to perforation of the colon and peritonitis. A barium enema may be prescribed after the client has been treated with antibiotic therapy and the inflammation has subsided. A barium enema is diagnostic in diverticulitis. A barium enema could increase the client's pain; however, that is not a reason for excluding this test. The client may be able to tolerate the procedure but the concern is the potential for perforation of the

intestine.

CN: Reduction of risk potential; CL: Apply

70. 4. Clients with diverticular disease should refrain from any activities, such as lifting, straining, or coughing, that increase intra-abdominal pressure and may precipitate an attack. Enemas are contraindicated because they increase intestinal pressure. Fluid intake should be increased, rather than decreased, to promote soft, formed stools. A low-fiber diet is used when inflammation is present.

CN: Reduction of risk potential; CL: Synthesize

71. 3, 4, 5. Clients who have diverticulosis should be instructed to maintain a diet high in fiber and, unless contraindicated, should increase their fluid intake to a minimum of 2,000 mL/day. Participating in a regular exercise program is also strongly encouraged. Diverticulosis can be controlled with treatment but cannot be cured. Clients should be instructed to avoid the regular use of cathartic laxatives. Bulk laxatives and stool softeners may be helpful to maintain regularity and decrease straining.

CN: Reduction of risk potential; CL: Evaluate

72. 1. Diverticular disease is treated with a high-fiber diet and bulk laxatives such as psyllium hydrophilic mucilloid (Metamucil). Fiber decreases the intraluminal pressure and makes it easier for stool to pass through the colon. Bulk laxatives do not manage diarrhea, anxiety or relieve gas formation.

CN: Pharmacological and parenteral therapies; CL: Evaluate

73. 1, 2, 5. Assessment during peritonitis will reveal fever, tachypnea, and tachycardia. The abdomen becomes rigid with rebound tenderness and there will be absent bowel sounds. Percussion will show resonance and tympany indicating paralytic ileus; loss of liver dullness may indicate free air in the abdomen. There is anorexia, nausea, and vomiting as peristalsis decreases.

CN: Physiological adaptation; CL: Analyze

The Client with Appendicitis

74. 4. The nurse should gently clean the area around the drain by moving in a circular motion away from the drain. Doing so prevents the introduction of microorganisms to the wound and drain site. The incision cannot be left open to air as long as the drain is intact. The nurse should note the amount and character of wound drainage, but the surgeon will determine when the drain should be removed. Surgical wound drains are not irrigated.

CN: Safety and infection control; CL: Synthesize

75. 3. The nurse should place the client on NPO status in anticipation of surgery. The nurse can initiate pain relief strategies, such as relaxation techniques, but the surgeon will likely not prescribe narcotic medication prior to surgery. The nurse can place the client in a position that is most comfortable for the client. Heat is contraindicated because it may lead to perforation of the appendix.

CN: Reduction of risk potential; CL: Synthesize

76. 4. Complications of acute appendicitis are perforation, peritonitis, and abscess development. Signs of the development of peritonitis include abdominal pain and distention, tachycardia, tachypnea, nausea, vomiting, and fever. Because peritonitis can cause hypovolemic shock, hypotension can develop. Deficient fluid volume would not cause a fever. Intestinal obstruction would cause abdominal distention, diminished or absent bowel sounds, and abdominal pain. Bowel ischemia has signs and symptoms similar to those found with intestinal obstruction.

CN: Physiological adaptation; CL: Analyze

77. 2. Noting the client's first bowel movement after surgery is important because this indicates that normal peristalsis has returned. Sitz baths are used after rectal surgery, not appendectomy. Ambulation is started the day of surgery and is not confined to bathroom privileges. The abdomen should be auscultated for bowel sounds and palpated for softness, but there is no need to measure the girth every 2 hours.

CN: Physiological adaptation; CL: Synthesize

78. 2. Drains are inserted postoperatively in appendectomies when an abscess was present or the appendix was perforated. The purpose is to promote drainage of exudate from the wound and facilitate healing. A drain is not used for irrigation of the wound. The drain will not minimize scar tissue development or decrease postoperative discomfort.

CN: Reduction of risk potential; CL: Apply

The Client with an Inguinal Hernia

79. 3. The symptoms are indicative of a strangulated hernia. In a strangulated hernia, the hernia cannot be reduced back into the abdominal cavity. The intestinal lumen and the blood supply to the intestine are obstructed, causing an acute intestinal obstruction. Without immediate intervention, necrosis and

gangrene may develop. Surgery is required to release the strangulation. Although many of these signs and symptoms are present with peritonitis or perforated bowel, abdominal rigidity, a cardinal sign of peritonitis and perforated bowel, is not mentioned. Therefore, the nurse would not immediately suspect these conditions. An incarcerated hernia refers to a hernia that is irreducible but has not necessarily resulted in an obstruction.

 CN: Physiological adaptation; CL: Analyze

80. 2. After inguinal herniorrhaphy, an ice bag to the scrotum will help decrease pain and edema. The client is encouraged to turn and deep breathe, but coughing is not encouraged, to decrease straining on the surgical area. A truss is not needed for support after surgery. While resting, the client may be most comfortable in a semi-Fowler's position, but there is no need to maintain a high Fowler's position.

 CN: Physiological adaptation; CL: Synthesize

81. 4. The most common complication after an inguinal hernia repair is the inability to void, especially in men. The nurse should evaluate the client carefully for urine retention. Hypostatic pneumonia, deep vein thrombosis, and paralytic ileus are potential postoperative problems with any surgical client but are not as likely to occur after an inguinal hernia repair as is urine retention.

 CN: Reduction of risk potential; CL: Analyze

Managing Care Quality and Safety

82. 4, 5. *Clostridium difficile* is an organism that has developed very resistant and highly morbid strains. Universal precautions, most importantly handwashing, wearing personal protective gear, and modest use of antibiotics, are critical actions for stopping the spread. *C. difficile* is not spread via the respiratory tract; therefore, a mask is not needed. Alcohol-based hand sanitizers do not kill the spores of *C. difficile*; soap and water must be used. Sterile gloves are not needed to provide care; clean gloves may be worn.

 CN: Safety and infection control; CL: Synthesize

83. 4. When TPN fluids are infused too rapidly or too slowly, the physician should be notified. TPN solutions must be carefully and accurately infused. Rate adjustments should not be made without a written prescription from the physician. Significant alterations in rate (10% increase or decrease) can result in fluctuations of blood glucose levels. Speeding up the solution can result in too much glucose entering the system.

CN: Management of care; CL: Synthesize

84. 3. The nurse should contact the pharmacy directly and request that a properly labeled medication be provided. The nurse should not administer any drug that is not properly labeled, even if the nurse or another nurse recognizes the medication. It is not necessary to notify the unit manager at this point because the client needs to receive the antibiotic as soon as possible.

CN: Safety and infection control; CL: Apply

85. 3. When dehiscence occurs, the nurse should immediately cover the wound with a sterile dressing moistened with normal saline. If the dehiscence is extensive, the incision must be resutured in surgery. Later, after the sutures are removed, additional support may be provided to the incision by applying strips of tape as directed by institutional policy or by the surgeon. An abdominal binder may also be utilized for additional support.

CN: Reduction of risk potential; CL: Synthesize

86. 2. Airborne precautions are required for clients with presumed or proven pulmonary tuberculosis (TB), chickenpox, or other airborne pathogens. Contact precautions are used for organisms that are spread by skin-to-skin contact, such as antibiotic-resistant organisms or *Clostridium difficile*. Droplet precautions are used for organisms such as influenza or *meningococcus* that can be transmitted by close respiratory or mucous membrane contact with respiratory secretions. The most important aspect of reducing the risk of bloodborne infection is avoidance of percutaneous injury. Extreme care is essential when needles, scalpels, and other sharp objects are handled.

CN: Safety and infection control; CL: Apply

87. 2, 4. A Black Box Warning for ciprofloxacin (Cipro) is that ciprofloxacin (Cipro) may increase the anticoagulant effects of warfarin (Coumadin). The nurse should instruct the client to report increased bleeding and to monitor the prothrombin time (PT) and the international normalized ratio (INR) closely. Although there is a drug-food interaction and taking ciprofloxacin (Cipro) may increase the stimulatory effect of caffeine, the client does not need to eliminate caffeine, but should report signs of stimulant effect. Ciprofloxacin (Cipro) may cause photosensitivity reactions; the nurse must advise the client to avoid excessive sunlight or artificial ultraviolet light during therapy. Clients must be advised not to crush, split, or chew the extended-release tablets. It is not necessary to increase the amount of fluids.

CN: Pharmacological and parenteral therapies; CL: Synthesize

TEST 7: The Client with Biliary Tract Disorders

The Client with Cholecystitis

1. A client has undergone a laparoscopic cholecystectomy. Which of the following instructions should the nurse include in the discharge teaching?

☐ **1.** Empty the bile bag daily.
☐ **2.** Breathe deeply into a paper bag when nauseated.
☐ **3.** Keep adhesive dressings in place for 6 weeks.
☐ **4.** Report bile-colored drainage from any incision.

2. A 40-year-old client is admitted to the hospital with a diagnosis of acute cholecystitis. The nurse should contact the physician to question which of the following prescriptions?

☐ **1.** IV fluid therapy of normal saline solution to be infused at 100 mL/h until further prescriptions.
☐ **2.** Administer morphine sulfate 10 mg IM every 4 hours as needed for severe abdominal pain.
☐ **3.** Nothing by mouth (NPO) until further prescriptions.
☐ **4.** Insert a nasogastric tube and connect to low intermittent suction.

3. A client is admitted to the hospital with a diagnosis of cholecystitis from cholelithiasis. The client has severe abdominal pain and nausea, and has vomited several times. Based on these data, which nursing action would have the **highest** priority for intervention at this time?

☐ **1.** Manage anxiety.
☐ **2.** Restore fluid loss.
☐ **3.** Manage the pain.
☐ **4.** Replace nutritional loss.

4. A client's stools are light gray in color. The nurse should assess the client further for which of the following? Select all that apply.

☐ **1.** Intolerance to fatty foods.
☐ **2.** Fever.
☐ **3.** Jaundice.
☐ **4.** Respiratory distress.
☐ **5.** Pain at McBurney's point.
☐ **6.** Peptic ulcer disease.

5. A client who has been scheduled to have a choledocholithotomy expresses anxiety about having surgery. Which nursing intervention would be

the **most** appropriate to achieve the outcome of anxiety reduction?

☐ **1.** Providing the client with information about what to expect postoperatively.
☐ **2.** Telling the client it is normal to be afraid.
☐ **3.** Reassuring the client by saying that surgery is a common procedure.
☐ **4.** Stressing the importance of following the physician's instructions after surgery.

6. A client has an open cholecystectomy with bile duct exploration. Following surgery, the client has a t-tube. To evaluate the effectiveness of the t-tube, the nurse should:

☐ **1.** Irrigate the tube with 20 mL of normal saline every 4 hours.
☐ **2.** Unclamp the t-tube and empty the contents every day.
☐ **3.** Assess the color and amount of drainage every shift.
☐ **4.** Monitor the multiple incision sites for bile drainage.

7. At 8 AM, the nurse reviews the amount of t-tube drainage for a client who underwent an open cholecystectomy yesterday. After reviewing the output record (see chart), the nurse should:

Output Record

Date	T-tube
12 PM	50 mL
4 PM	60 mL
8 PM	60 mL
12 AM	70 mL
4 AM	70 mL
8 AM	10 mL

☐ **1.** Report the 24-hour drainage amount at 12 noon.
☐ **2.** Clamp the t-tube.
☐ **3.** Evaluate the tube for patency.
☐ **4.** Irrigate the t-tube.

8. The nurse measures the amount of bile drainage from a t-tube and records it by which one of the following methods?

☐ **1.** Adding it to the client's urine output.
☐ **2.** Charting it separately on the output record.
☐ **3.** Adding it to the amount of wound drainage.

☐ **4.** Subtracting it from the total intake for each day.

9. The nurse is caring for a client who had an open cholecystectomy 24 hours ago. The client's vital signs have been stable over the last 24 hours, with most recent temperature 37°C (98.6°F), blood pressure (BP) 118/76, respiratory rate (RR) 16/min, and heart rate (HR) 78 bpm, but are now changing. Which of the following indicate that the nurse should contact the physician?

☐ **1.** Temperature 38.8°C (101.8°F), BP 140/86, HR 94 bpm, RR 24/min.
☐ **2.** Temperature 38.2°C (100.7°F), BP 118/68, HR 84 bpm, RR 20/min.
☐ **3.** Temperature 37.5°C (99.5°F), BP 126/80, HR 58 bpm, RR 16/min.
☐ **4.** Temperature 36.4°C (97.5°F), BP 98/64, HR 98 bpm, RR 18/min.

10. After a cholecystectomy, the client is to follow a low-fat diet. Which of the following foods would be **most** appropriate to include in a low-fat diet?

☐ **1.** Cheese omelet.
☐ **2.** Peanut butter.
☐ **3.** Ham salad sandwich.
☐ **4.** Roast beef.

11. A client with cholecystitis continues to have severe right upper quadrant pain. The nurse obtains the following vital signs: temperature 38.4°C; pulse 114; respirations 22; blood pressure 142/90. Using the SBAR (Situation-Background-Assessment-Recommendation) technique for communication, the nurse recommends to the primary care provider for the client to receive:

☐ **1.** Hydromorphone IV.
☐ **2.** Diltiazem PO.
☐ **3.** Meperidine IM.
☐ **4.** Promethazine IM.

The nurse prepares to administer promethazine (Phenergan) 35 mg IM as prescribed PRN for a client with cholecystitis who has nausea. The ampule label reads that the medication is available in 25 mg/mL. How many milliliters should the nurse administer?

_____ mL.

13. A client undergoes a laparoscopic cholecystectomy. Which of the following dietary instructions should the nurse give the client immediately after surgery?

☐ **1.** “You cannot eat or drink anything for 24 hours.”
☐ **2.** “You may resume your normal diet the day after your surgery.”
☐ **3.** “Drink liquids today and eat lightly for a few days.”
☐ **4.** “You can progress from a liquid to a bland diet as tolerated.”

14. Which of the following discharge instructions would be appropriate for a client who has had a laparoscopic cholecystectomy and has sutures covered by steri-strips?

☐ **1.** Avoid showering for 1 week hours after surgery.
☐ **2.** Return to work within 1 week.
☐ **3.** Leave steri-strips in place until you see the surgeon at the postoperative visit.
☐ **4.** Use acetaminophen (Tylenol) to control any fever.

15. After a client who has had a laparoscopic cholecystectomy receives discharge instructions, which of the following client statements would indicate that the teaching has been successful? Select all that apply.

☐ **1.** "I can resume my normal diet when I want."
☐ **2.** "I need to avoid driving for about 4 weeks."
☐ **3.** "I may experience some pain in my right shoulder."
☐ **4.** "I should spend 2 to 3 days in bed before resuming activity."
☐ **5.** "I can take a shower 2 days later."

16. A client has been admitted to the medical surgical unit following an emergency cholecystectomy. There is a Jackson Pratt drain with a portable suction unit attached. After 4 hours, the drainage unit is full. The nurse should do which of the following?

☐ **1.** Notify the surgeon.
☐ **2.** Remove the drain and suction unit.
☐ **3.** Check the dressing for bleeding.
☐ **4.** Empty the drainage unit.

The Client with Pancreatitis

17. The client who has been hospitalized with pancreatitis does not drink alcohol because of her religious convictions. She becomes upset when the physician persists in asking her about alcohol intake. The nurse should explain that the reason for these questions is that:

☐ **1.** There is a strong link between alcohol use and acute pancreatitis.
☐ **2.** Alcohol intake can interfere with the tests used to diagnose pancreatitis.
☐ **3.** Alcoholism is a major health problem, and all clients are questioned about alcohol intake.
☐ **4.** The physician must obtain the pertinent facts, regardless of religious beliefs.

18. The nurse monitors the client with pancreatitis for early signs of shock. Which of the following conditions is **primarily** responsible for making it difficult to manage shock in pancreatitis?

☐ **1.** Severity of intestinal hemorrhage.
☐ **2.** Vasodilating effects of kinin peptides.
☐ **3.** Tendency toward heart failure.
☐ **4.** Frequent incidence of acute tubular necrosis.

19. A client with acute pancreatitis has a blood pressure of 88/40, heart rate of 128 bpm, respirations of 28/min, and Grey Turner's sign. What action should the nurse perform **first**?

☐ **1.** Assess the urine output.
☐ **2.** Place an intravenous line.
☐ **3.** Position on the left side.
☐ **4.** Insert a nasogastric tube.

20. A client is admitted with acute necrotizing pancreatitis. Lab results have been obtained, and a peripheral IV has been inserted. Which of the following prescriptions from a health care provider should the nurse question?

☐ **1.** Infuse a 500-mL normal saline bolus.
☐ **2.** Calcium gluconate 90 mg in 100 mL NS.
☐ **3.** Total parenteral nutrition (TPN) at 72 mL/h.
☐ **4.** Placement of a Foley catheter.

21. Which of the following medications would the nurse question for a client with acute pancreatitis?

☐ **1.** Furosemide (Lasix) 20 mg IV push.
☐ **2.** Imipenem (Primaxin) 500 mg IV.
☐ **3.** Morphine sulfate 2 mg IV push.
☐ **4.** Famotidine (Pepcid) 20 mg IV push.

22. The nurse should monitor the client with acute pancreatitis for which of the following complications?
☐ **1.** Heart failure.
☐ **2.** Duodenal ulcer.
☐ **3.** Cirrhosis.
☐ **4.** Pneumonia.

23. When providing care for a client hospitalized with acute pancreatitis who has acute abdominal pain, which of the following nursing interventions would be **most** appropriate for this client? Select all that apply.
☐ **1.** Placing the client in a side-lying position.
☐ **2.** Administering morphine sulfate for pain as needed.
☐ **3.** Maintaining the client on a high-calorie, high-protein diet.
☐ **4.** Monitoring the client's respiratory status.
☐ **5.** Obtaining daily weights.

24. The nurse notes that a client with acute pancreatitis occasionally experiences muscle twitching and jerking. How should the nurse interpret the significance of these symptoms?
☐ **1.** The client may be developing hypocalcemia.
☐ **2.** The client is experiencing a reaction to meperidine (Demerol).
☐ **3.** The client has a nutritional imbalance.
☐ **4.** The client needs a muscle relaxant to promote rest.

25. A client is receiving Propantheline bromide in the management of acute pancreatitis. Which of the following would indicate that the nurse should discuss withholding the medication with the physician?
☐ **1.** Absent bowel sounds.
☐ **2.** Increased urine output.
☐ **3.** Diarrhea.
☐ **4.** Decreased heart rate.

26. Which of the following dietary instructions would be appropriate for the nurse to give a client who is recovering from acute pancreatitis?
☐ **1.** Avoid crash dieting.
☐ **2.** Restrict carbohydrate intake.
☐ **3.** Eat six small meals a day.
☐ **4.** Decrease sodium in the diet.

27. Pancreatic enzyme replacements are prescribed for the client with chronic pancreatitis. When should the nurse instruct the client to take them to obtain the most therapeutic effect?

☐ **1.** Three times daily between meals.
☐ **2.** With each meal and snack.
☐ **3.** In the morning and at bedtime.
☐ **4.** Every 4 hours, at specified times.

28. The nurse should teach the client with chronic pancreatitis to monitor the effectiveness of pancreatic enzyme replacement therapy by doing which of the following?

☐ **1.** Recording daily fluid intake.
☐ **2.** Performing glucose fingerstick tests twice a day.
☐ **3.** Observing stools for steatorrhea.
☐ **4.** Testing urine for ketones.

The Client with Viral Hepatitis

29. The nurse is assessing a client with chronic hepatitis B who is receiving lamivudine. What information is **most** important to communicate to the physician?

☐ **1.** The client has had a 3-kg weight gain over 2 days.
☐ **2.** The client has nausea.
☐ **3.** The client now has a temperature of 99°F (37.2°C) orally.
☐ **4.** The client has fatigue.

30. The nurse is assessing a client with hepatitis and notices that the aspartate transaminase (AST) and alanine transaminase (ALT) lab values have increased. Which of the following statements by the client requires further instruction by the nurse?

☐ **1.** "I require increased periods of rest."
☐ **2.** "I follow a low-fat, high-carbohydrate diet."
☐ **3.** "I eat dry toast to relieve my nausea."
☐ **4.** "I take acetaminophen (Tylenol) for arthritis pain."

31. College freshmen are participating in a study abroad program. When teaching them about hepatitis B, the nurse should instruct the students on the need for:

☐ **1.** Water sanitation.
☐ **2.** Single dormitory rooms.
☐ **3.** Vaccination for hepatitis D.
☐ **4.** Safe sexual practices.

32. Which of the following is normal for a client during the icteric phase of viral hepatitis?

☐ **1.** Tarry stools.
☐ **2.** Yellowed sclera.
☐ **3.** Shortness of breath.
☐ **4.** Light, frothy urine.

33. The nurse is teaching a client with viral hepatitis about preventing transmission of the disease. The nurse should focus teaching on:

☐ **1.** Proper food handling.
☐ **2.** Insulin syringe disposal.
☐ **3.** Alpha-interferon.

☐ **4.** Use of condoms.

34. A client has a positive serologic test for anti-HCV (hepatitis C virus). The nurse should instruct the client:

☐ **1.** How to self-administer alpha interferon.
☐ **2.** That the HCV will resolve in approximately 3 months.
☐ **3.** That a follow-up appointment for HCV genotype testing is required.
☐ **4.** To take alpha interferon as prescribed.

35. A client with chronic hepatitis C is experiencing nausea, anorexia, and fatigue. During the health history the client states that he is homosexual, drinks one to two glasses of wine with dinner, is taking St. John's Wort for a "bit of depression," and takes Tylenol for frequent headaches. The nurse should do which of the following? Select all that apply.

☐ **1.** Instruct the client that the wine with meals can be beneficial for cardiovascular health.
☐ **2.** Instruct the client to ask the health care provider about taking any other medications as they may interact with medications the client is currently taking.
☐ **3.** Instruct the client to increase the protein in his diet and eat less frequently.
☐ **4.** Advise the client of the need for additional testing for HIV.
☐ **5.** Encourage the client to obtain sufficient rest.

36. A client who is recovering from hepatitis A has fatigue and malaise. The client asks the nurse, "When will my strength return?" Which of the following responses by the nurse is **most** appropriate?

☐ **1.** "Your fatigue should be gone by now. We will evaluate you for a secondary infection."
☐ **2.** "Your fatigue is an adverse effect of your drug therapy. It will disappear when your treatment regimen is complete."
☐ **3.** "It is important for you to increase your activity level. That will help decrease your fatigue."
☐ **4.** "It is normal for you to feel fatigued. The fatigue should go away in the next 2 to 4 months."

37. The nurse is developing a plan of care for the client with viral hepatitis. The nurse should instruct the client to:

☐ **1.** Obtain adequate bed rest.
☐ **2.** Increase fluid intake.
☐ **3.** Take antibiotic therapy as prescribed.
☐ **4.** Drink 8 oz (240 mL) of an electrolyte solution every day.

38. When planning care for a client with viral hepatitis, the nurse should

review laboratory reports for which of the following abnormal laboratory values?

☐ **1.** Prolonged prothrombin time.
☐ **2.** Decreased blood glucose level.
☐ **3.** Elevated serum potassium level.
☐ **4.** Decreased serum calcium level.

39. The nurse should teach the client with viral hepatitis to:

☐ **1.** Limit caloric intake and reduce weight.
☐ **2.** Increase carbohydrates and protein in the diet.
☐ **3.** Avoid contact with others and sleep in a separate room.
☐ **4.** Intensify routine exercise and increase strength.

40. The nurse develops a teaching plan for the client about how to prevent the transmission of hepatitis A. Which of the following discharge instructions is appropriate for the client?

☐ **1.** Spray the house to eliminate infected insects.
☐ **2.** Tell family members to try to stay away from the client.
☐ **3.** Tell family members to wash their hands frequently.
☐ **4.** Disinfect all clothing and eating utensils.

41. The client with hepatitis is experiencing fatigue, weakness, and a general feeling of malaise. The client tires rapidly during morning care. The **most** appropriate goal for this client is to:

☐ **1.** Increase mobility.
☐ **2.** Learn new self-care skills.
☐ **3.** Adapt to new levels of energy.
☐ **4.** Gradually increase activity tolerance.

42. What would be the nurse's **best** response to the client's expressed feelings of isolation as a result of having hepatitis?

☐ **1.** “Don't worry. It's normal to feel that way.”
☐ **2.** “Your friends are probably afraid of contracting hepatitis from you.”
☐ **3.** “I'm sure you're imagining that!”
☐ **4.** “Tell me more about your feelings of isolation.”

43. Interferon alfa-2b (Intron A) has been prescribed to treat a client with chronic hepatitis B. The nurse should assess the client for which of the following adverse effects?

☐ **1.** Retinopathy.
☐ **2.** Constipation.
☐ **3.** Flulike symptoms.
☐ **4.** Hypoglycemia.

44. The nurse is preparing a community education program about preventing hepatitis B infection. Which of the following would be appropriate to incorporate into the teaching plan?

☐ **1.** Hepatitis B is relatively uncommon among college students.
☐ **2.** Frequent ingestion of alcohol can predispose an individual to development of hepatitis B.
☐ **3.** Good personal hygiene habits are most effective at preventing the spread of hepatitis B.
☐ **4.** The use of a condom is advised for sexual intercourse.

45. Which of the following expected outcomes would be appropriate for a client with viral hepatitis? The client will:

☐ **1.** Demonstrate a decrease in fluid retention related to ascites.
☐ **2.** Verbalize the importance of reporting bleeding gums or bloody stools.
☐ **3.** Limit use of alcohol to two to three drinks per week.
☐ **4.** Restrict activity to within the home to prevent disease transmission.

The Client with Cirrhosis

46. A client with cirrhosis is receiving lactulose. During the assessment, the nurse notes increased confusion and asterixis. The nurse should:

☐ **1.** Assess for gastrointestinal (GI) bleeding.
☐ **2.** Hold the lactulose.
☐ **3.** Increase protein in the diet.
☐ **4.** Monitor serum bilirubin levels.

47. The nurse is assessing a client with cirrhosis who has developed hepatic encephalopathy. The nurse should notify the physician of a decrease in which serum lab value that is a potential precipitating factor for hepatic encephalopathy?

☐ **1.** Aldosterone.
☐ **2.** Creatinine.
☐ **3.** Potassium.
☐ **4.** Protein.

48. A client has advanced cirrhosis of the liver. The client's spouse asks the nurse why his abdomen is swollen, making it very difficult for him to fasten his pants. How should the nurse respond to provide the **most** accurate explanation of the disease process?

☐ **1.** “He must have been eating too many foods with salt in them. Salt pulls water with it.”
☐ **2.** “The swelling in his ankles must have moved up closer to his heart so the fluid circulates better.”
☐ **3.** “He must have forgotten to take his daily water pill.”
☐ **4.** “Blood is not able to flow readily through the liver now, and the liver cannot make protein to keep fluid inside the blood vessels.”

49. A nurse is developing a care plan for a client with hepatic encephalopathy. Which of the following are goals for the care for this client? Select all that apply.

☐ **1.** Preventing constipation.
☐ **2.** Administering lactulose to reduce blood ammonia levels.
☐ **3.** Monitoring coordination while walking.
☐ **4.** Checking the pupil reaction.
☐ **5.** Providing food and fluids high in carbohydrate.
☐ **6.** Encouraging physical activity.

50. The nurse is assessing a client who is in the early stages of cirrhosis of the liver. Which focused assessment is appropriate?

☐ **1.** Peripheral edema.
☐ **2.** Ascites.
☐ **3.** Anorexia.
☐ **4.** Jaundice.

51. A client with cirrhosis begins to develop ascites. Spironolactone (Aldactone) is prescribed to treat the ascites. The nurse should monitor the client closely for which of the following drug-related adverse effects?

☐ **1.** Constipation.
☐ **2.** Hyperkalemia.
☐ **3.** Irregular pulse.
☐ **4.** Dysuria.

52. What diet should be implemented for a client who is in the early stages of cirrhosis?

☐ **1.** High-calorie, high-carbohydrate.
☐ **2.** High-protein, low-fat.
☐ **3.** Low-fat, low-protein.
☐ **4.** High-carbohydrate, low-sodium.

53. A client with jaundice has pruritus and areas of irritation from scratching. What measures can the nurse discuss to prevent skin breakdown? Select all that apply.

☐ **1.** Avoid lotions containing calamine.
☐ **2.** Add baking soda to the water in a tub bath.
☐ **3.** Keep nails short and clean.
☐ **4.** Rub the skin when it itches with knuckles instead of nails.
☐ **5.** Massage skin with alcohol.
☐ **6.** Increase sodium intake in diet.

54. Which of the following health promotion activities would be appropriate for the nurse to suggest that the client with cirrhosis add to the daily routine at home?

☐ **1.** Supplement the diet with daily multivitamins.
☐ **2.** Abstain from drinking alcohol.
☐ **3.** Take a sleeping pill at bedtime.
☐ **4.** Limit contact with other people whenever possible.

55. The nurse is reviewing the chart information for a client with increased ascites. The data include the following: temperature 37.2°C, heart rate 118,

shallow respirations 26, blood pressure 128/76, and SpO_2 89% on room air. Which action should receive **priority** by the nurse?

☐ **1.** Assess heart sounds.
☐ **2.** Obtain a prescription for blood cultures.
☐ **3.** Prepare for a paracentesis.
☐ **4.** Raise the head of the bed.

56. Which of the following positions would be appropriate for a client with severe ascites?

☐ **1.** Fowler's.
☐ **2.** Side-lying.
☐ **3.** Reverse Trendelenburg.
☐ **4.** Sims.

57. The client with cirrhosis receives 100 mL of 25% serum albumin IV. Which finding would **best** indicate that the albumin is having its desired effect?

☐ **1.** Increased urine output.
☐ **2.** Increased serum albumin level.
☐ **3.** Decreased anorexia.
☐ **4.** Increased ease of breathing.

58. A client with a Sengstaken-Blakemore tube has a sudden drop in SpO_2 and increase in respiratory rate to 40 breaths/min. The nurse should do which of the following in order from first to last?

1. Affirm airway obstruction by the tube.
2. Remove the tube.
3. Deflate the tube by cutting with bedside scissors.
4. Apply oxygen via face mask.

59. The health care provider instructs a client with alcohol-induced cirrhosis to stop drinking alcohol. The expected outcome of this intervention is:

☐ **1.** Absence of delirium tremens.
☐ **2.** Having a balanced diet.
☐ **3.** Improved liver function.
☐ **4.** Reduced weight.

60. The nurse monitors a client with cirrhosis for the development of hepatic encephalopathy. Which of the following would be an indication that hepatic encephalopathy is developing?

☐ **1.** Decreased mental status.
☐ **2.** Elevated blood pressure.
☐ **3.** Decreased urine output.
☐ **4.** Labored respirations.

61. A client's serum ammonia level is elevated, and the physician prescribes 30 mL of lactulose. Which of the following is an adverse effect of this drug?

☐ **1.** Increased urine output.
☐ **2.** Improved level of consciousness.
☐ **3.** Increased bowel movements.
☐ **4.** Nausea and vomiting.

The nurse has a prescription to administer 2 oz of lactulose to a client who has cirrhosis. How many milliliters of lactulose should the nurse administer?

_____ mL.

63. A client is to be discharged with a prescription for lactulose. The nurse teaches the client and the client's spouse how to administer this medication. Which of the following statements would indicate that the client has understood the information?

☐ **1.** “I'll take it with Maalox.”
☐ **2.** “I'll mix it with apple juice.”
☐ **3.** “I'll take it with a laxative.”
☐ **4.** “I'll mix the crushed tablets in some gelatin.”

64. The nurse is providing discharge instructions for a client with cirrhosis. Which of the following statements **best** indicates that the client has understood the teaching?

☐ **1.** “I should eat a high-protein, high-carbohydrate diet to provide energy.”
☐ **2.** “It is safer for me to take acetaminophen (Tylenol) for pain instead of aspirin.”
☐ **3.** “I should avoid constipation to decrease chances of bleeding.”

☐ **4.** “If I get enough rest and follow my diet, it is possible for my cirrhosis to be cured.”

65. The nurse is preparing a client for a paracentesis. The nurse should:

☐ **1.** Have the client void immediately before the procedure.
☐ **2.** Place the client in a side-lying position.
☐ **3.** Initiate an IV line to administer sedatives.
☐ **4.** Place the client on nothing-by-mouth (NPO) status 6 hours before the procedure.

66. A client with ascites and peripheral edema is at risk for impaired skin integrity. To prevent skin breakdown, the nurse should:

☐ **1.** Institute range-of-motion (ROM) exercise every 4 hours.
☐ **2.** Massage the abdomen once a shift.
☐ **3.** Use an alternating air pressure mattress.
☐ **4.** Elevate the lower extremities.

Managing Care Quality and Safety

67. The nurse is planning a staff development program on how to care for clients with hepatitis A. Which of the following precautions should the nurse indicate as essential when caring for clients with hepatitis A?

☐ **1.** Gowning when entering a client's room.
☐ **2.** Wearing a mask when providing care.
☐ **3.** Assigning the client to a private room.
☐ **4.** Wearing gloves when giving direct care.

68. After completing assessment rounds, which of the following should the nurse discuss with the physician **first**?

☐ **1.** A client with cirrhosis who is depressed and has refused to eat for the past 2 days.
☐ **2.** A client with stable vital signs that has been receiving IV cipro following a cholecystectomy for 1 day and has developed a rash on the chest and arms.
☐ **3.** A client with pancreatitis whose family requests to speak with the physician regarding the treatment plan.
☐ **4.** A client with hepatitis whose pulse was 84 and regular and is now 118 and irregular.

69. The nurse's assignment consists of the following four clients. From highest to lowest priority, in which order should the nurse assess the clients after receiving morning report?

1. The client with cirrhosis who became confused and disoriented during the night.

2. The client who is 1 day postoperative following a cholecystectomy and has a t-tube inserted.

3. The client with acute pancreatitis who is requesting pain medication.

4. The client with hepatitis B who has questions about discharge instructions.

70. The nurse should institute which of the following measures to prevent transmission of the hepatitis C virus to health care personnel?

☐ **1.** Administering hepatitis C vaccine to all health care personnel.
☐ **2.** Decreasing contact with blood and blood-contaminated fluids.
☐ **3.** Wearing gloves when emptying the bedpan.
☐ **4.** Wearing a gown and mask when providing direct care.

71. The nurse is taking care of a client who has an IV infusion pump. The pump alarm rings. What should the nurse do in order from first to last?

1. Silence the pump alarm.

2. Determine if the infusion pump is plugged into an electrical outlet.

3. Assess the client's access site for infiltration or inflammation.

4. Assess the tubing for hindrances to flow of solution.

Answers, Rationales, and Test-Taking Strategies

The answers and rationales for each question follow below, along with keys ( *) to the client need (CN) and cognitive level (CL) for each question. As you check your answers, use the* ***Content Mastery and Test-Taking Skill Self-Analysis*** *worksheet (tear-out worksheet in back of book) to identify the reason(s) for not answering the questions correctly. For additional information about test-taking skills and strategies for answering questions, refer to pages 10–21 and pages 31–32 in Part 1 of this book.*

The Client with Cholecystitis

1. 4. There should be no bile-colored drainage coming from any of the incisions postoperatively. A laparoscopic cholecystectomy does not involve a bile bag. Breathing deeply into a paper bag will prevent a person from passing out due to hyperventilation; it does not alleviate nausea. If the adhesive dressings have not already fallen off, they are removed by the surgeon in 7 to 10 days, not 6 weeks.

 CN: Management of care; CL: Create

2. 2. A nurse should question the prescription for morphine sulfate because it is believed to cause biliary spasm. Thus, the preferred opioid analgesic to treat cholecystitis is meperidine (Demerol). Elderly clients should not be given meperidine because of the risk of acute confusion and seizures in this population. An alternative pain medication will be necessary. IV fluid therapy is used to maintain fluid and electrolyte balance that may result from NPO status and gastric suctioning. NPO status and gastric decompression prevent further gallbladder stimulation.

 CN: Safety and infection control; CL: Synthesize

3. 3. The priority for nursing care at this time is to decrease the client's severe abdominal pain. The pain, which is frequently accompanied by nausea and vomiting, is caused by biliary spasm. Opioid analgesics are given to relieve the severe pain and spasm of cholecystitis. Relief of pain may decrease nausea and vomiting and thereby decrease the client's likelihood of developing further complications, such as severe fluid loss and inadequate nutrition. There are no

data to suggest that the client is anxious.

CN: Physiological adaptation; CL: Analyze

4. 1, 2, 3. Bile is created in the liver, stored in the gallbladder, and released into the duodenum, giving stool its brown color. A bile duct obstruction can cause pale-colored stools. Other symptoms associated with cholelithiasis are right upper quadrant tenderness, fever from inflammation or infection, jaundice from elevated serum bilirubin levels, and nausea or right upper quadrant pain after a fatty meal. Pain at McBurney's point lies between the umbilicus and right iliac crest and is associated with appendicitis. A bleeding ulcer produces black, tarry stools. Respiratory distress is not a symptom of cholelithiasis.

CN: Physiological adaptation; CL: Analyze

5. 1. Providing information can help to answer the client's questions and decrease anxiety. Fear of the unknown can increase anxiety. Telling the client not to be afraid, that the procedure is common, or to follow her physician's prescriptions will not necessarily decrease anxiety.

CN: Psychosocial adaptation; CL: Synthesize

6. 3. A t-tube is inserted in the common bile duct to maintain patency until edema from the duct exploration subsides. The bile color should be gold to dark green and the amount of drainage should be closely monitored to ensure tube patency. Irrigation is not routinely done, unless prescribed using a smaller volume of fluid. The t-tube is not clamped in the early postop period to allow for continuous drainage. An open cholecystectomy has one right subcostal incision, whereas a laparoscopic cholecystectomy has multiple small incisions.

CN: Physiological adaptation; CL: Evaluate

7. 3. The t-tube should drain approximately 300 to 500 mL in the first 24 hours, and after 3 to 4 days the amount should decrease to less than 200 mL in 24 hours. With the sudden decrease in drainage at 8 AM, the nurse should immediately assess the tube for obstruction of flow that can be caused by kinks in the tube or the client lying on the tube. Drainage color must also be assessed for signs of bleeding. The tube should not be irrigated or clamped without a prescription.

CN: Physiological adaptation; CL: Synthesize

8. 2. T-tube bile drainage is recorded separately on the output record. Adding the t-tube drainage to the urine output or wound drainage makes it difficult to accurately determine the amounts of bile, urine, or drainage. The client's total intake will be incorrect if drainage is subtracted from it.

CN: Reduction of risk potential; CL: Apply

9. 1. This client is exhibiting three of four signs of systemic inflammatory response syndrome (SIRS): temperature greater than 38°C (or less than 36°C), heart rate greater than 90 bpm, respiratory rate greater than 20 breaths/min. The fourth indicator is an abnormal white blood cell count (greater than 12,000 [12×10^9/L], less than 4000 [4×10^9/L] or greater than 10% [0.1×10^9/L] bands). At least two of these variables are required to define SIRS.

CN: Physiological integrity CL: Evaluate

10. 4. Lean meats, such as beef, lamb, veal, and well-trimmed lean ham and pork, are low in fat. Rice, pasta, and vegetables are low in fat when not served with butter, cream, or sauces. Fruits are low in fat. The amount of fat allowed in a client's diet after a cholecystectomy will depend on the client's ability to tolerate fat. Typically, the client does not require a special diet but is encouraged to avoid excessive fat intake. A cheese omelet and peanut butter have high fat content. Ham salad is high in fat from the fat in salad dressing.

CN: Basic care and comfort; CL: Apply

11. 1. Hydromorphone should be considered for pain management. It should be administered intravenously for rapid action to address the severe pain the client is experiencing. Intramuscular injections are painful and slower acting. Since meperidine's toxic metabolite can cause seizures, it is no longer the treatment choice for pain. Diltiazem, a calcium channel blocker, is not indicated. Elevation of heart rate and blood pressure is likely due to pain and fever. Promethazine is used to treat nausea.

CN: Pharmacological and parenteral therapies; CL: Synthesize

$$35\ \text{mg}/X\ \text{mL} = 25\,\text{mg}/1\ \text{mL}$$

12. 1.4 mL. $X = 1.4\ \text{mL}$

The following formula is used to calculate the correct dosage:

CN: Pharmacological and parenteral therapies; CL: Apply

13. 3. Immediately after surgery, the client will drink liquids. A light diet can be resumed the day after surgery. There is no need for the client to remain on nothing-by-mouth status after surgery because peristaltic bowel activity should not be affected. The client will probably not be able to tolerate a full meal comfortably the day after surgery. There is no need for the client to stay on a bland diet after a laparoscopic cholecystectomy. The client should, however, avoid excessive fats.

CN: Physiological adaptation; CL: Synthesize

14. 3. After a laparoscopic cholecystectomy when there are sutures covered by a dressing or steri-strips, the client should not remove dressings from the puncture sites but should wait until visiting the surgeon. The client may shower 48 hours after surgery. A client can return to work within 1 week, but only if approved by the surgeon and no strenuous activity is involved. The client should report any fever, which could be an indication of a complication.

 CN: Reduction of risk potential; CL: Synthesize

15. 1, 3, 5. Following a laparoscopic cholecystectomy, the client can resume a normal diet as tolerated. The client may experience right shoulder pain from the gas that was used to inflate the abdomen during surgery. The puncture site should be cleansed daily with mild soap and water; if a band aid was applied after surgery it can be patted dry or removed and replaced. Driving can usually be resumed in 3 to 4 days following surgery, and there is no need for the client to maintain bed rest in the days following surgery. Light exercise such as walking can be resumed immediately.

 CN: Physiological adaptation; CL: Evaluate

16. 4. Portable suction units should be emptied and drained every shift or when full. It is normal for the unit to fill within the first hours after surgery; the nurse does not need to contact the surgeon. There should not be bleeding on the dressing if the drainage system is emptied when full. The drain should not be removed until prescribed by the physician.

 CN: Management of care CL: Synthesize

The Client with Pancreatitis

17. 1. Alcoholism is a major cause of acute pancreatitis in the United States and Canada. Because some clients are reluctant to discuss alcohol use, staff may inquire about it in several ways. Generally, alcohol intake does not interfere with the tests used to diagnose pancreatitis. Recent ingestion of large amounts of alcohol, however, may cause an increased serum amylase level. Large amounts of ethyl and methyl alcohol may produce an elevated urinary amylase concentration. All clients are asked about alcohol and drug use on hospital admission, but this information is especially pertinent for clients with pancreatitis. Physicians do need to seek facts, but this can be done while respecting the client's religious beliefs. Respecting religious beliefs is important in providing holistic client care.

 CN: Health promotion and maintenance; CL: Apply

18. 2. Life-threatening shock is a potential complication of pancreatitis.

Kinin peptides activated by the trapped trypsin cause vasodilation and increased capillary permeability. These effects exacerbate shock and are not easily reversed with pharmacologic agents such as vasopressors. Hemorrhage may occur into the pancreas, but not in the intestines. Systemic complications include pulmonary complications, but not heart failure or acute tubular necrosis.

 CN: Physiological adaptation; CL: Analyze

19. 2. Grey Turner's sign is a bluish discoloration in the flank area caused by retroperitoneal bleeding. The vital signs are showing hemodynamic instability. IV access should be obtained to provide immediate volume replacement. The urine output will provide information on the fluid status. A nasogastric tube is indicated for clients with uncontrolled nausea and vomiting or gastric distension. Repositioning the client may be considered for pain management once the client's vital signs are stable.

 CN: Physiological adaptation; CL: Synthesize

20. 3. Clients with acute necrotizing pancreatitis should remain nothing by mouth (NPO) with early enteral feeding via the jejunum to maintain bowel integrity and immune function. TPN is considered if enteral feedings are contraindicated. Access is also needed for TPN, preferably via a central line. Hemodynamic instability can result from fluid volume loss and bleeding and requires fluid and electrolyte replacement. Fat necrosis occurring with acute pancreatitis can cause hypocalcemia requiring calcium replacement. A Foley catheter provides accurate output assessment to monitor for prerenal acute renal failure that can occur from hypovolemia.

 CN: Physiological adaptation; CL: Synthesize

21. 1. Furosemide (Lasix) can cause pancreatitis. Additionally, hypovolemia can develop with acute pancreatitis and Lasix will further delete fluid volume. Imipenem is indicated in the treatment of acute pancreatitis with necrosis and infection. Research no longer supports Meperidine (Demerol) over other opiates. Morphine and Dilaudid are opiates of choice in acute pancreatitis to get pain under control. Famotidine is a Histamine 2 receptor antagonist used to decrease acid secretion and prevent stress or peptic ulcers.

 CN: Pharmacological and parenteral therapies; CL: Synthesize

22. 4. The client with acute pancreatitis is prone to complications associated with the respiratory system. Pneumonia, atelectasis, and pleural effusion are examples of respiratory complications that can develop as a result of pancreatic enzyme exudate. Pancreatitis does not cause heart failure, ulcer formation, or

cirrhosis.

CN: Reduction of risk potential; CL: Analyze

23. 1, 4, 5. The client with acute pancreatitis usually experiences acute abdominal pain. Placing the client in a side-lying position relieves the tension on the abdominal area and promotes comfort. A semi-Fowler's position is also appropriate. The nurse should also monitor the client's respiratory status because clients with pancreatitis are prone to develop respiratory complications. Daily weights are obtained to monitor the client's nutritional and fluid volume status. While the client will likely need opioid analgesics to treat the pain, morphine sulfate is not appropriate as it stimulates spasm of the sphincter of Oddi, thus increasing the client's discomfort. During the acute phase of the illness while the client is experiencing pain, the pancreas is rested by withholding food and drink. When the diet is reintroduced, it is a high-carbohydrate, low-fat, bland diet.

CN: Physiological adaptation; CL: Synthesize

24. 1. Hypocalcemia develops in severe cases of acute pancreatitis. The exact cause is unknown. Signs and symptoms of hypocalcemia include jerking and muscle twitching, numbness of fingers and lips, and irritability. Meperidine (Demerol) may cause tremors or seizures as an adverse effect, but not muscle twitching. Muscle twitching is not caused by a nutritional deficit, nor does it indicate that the client needs a muscle relaxant.

CN: Reduction of risk potential; CL: Analyze

25. 1. Propantheline is an anticholinergic, antispasmodic medication that decreases vagal stimulation and pancreatic secretions. It is contraindicated in paralytic ileus; therefore, the nurse should be concerned with the absent bowel sounds. Side effects are urinary retention, constipation, and tachycardia.

CN: Pharmacological and parenteral therapies; CL: Analyze

26. 1. Crash dieting or bingeing may cause an acute attack of pancreatitis and should be avoided. Carbohydrate intake should be increased because carbohydrates are less stimulating to the pancreas. There is no need to maintain a dietary pattern of six meals a day; the client can eat whenever desired. There is no need to place the client on a sodium-restricted diet because pancreatitis does not promote fluid retention.

CN: Physiological adaptation; CL: Synthesize

27. 2. In chronic pancreatitis, destruction of pancreatic tissue requires pancreatic enzyme replacement. Pancreatic enzymes are prescribed to facilitate the digestion of proteins and fats and should be taken in conjunction with every

meal and snack. Specified hours or limited times for administration are ineffective because the enzymes must be taken in conjunction with food ingestion.

 CN: Pharmacological and parenteral therapies; CL: Apply

28. 3. If the dosage and administration of pancreatic enzymes are adequate, the client's stool will be relatively normal. Any increase in odor or fat content would indicate the need for dosage adjustment. Stable body weight would be another indirect indicator. Fluid intake does not affect enzyme replacement therapy. If diabetes has developed, the client will need to monitor glucose levels. However, glucose and ketone levels are not affected by pancreatic enzyme therapy and would not indicate effectiveness of the therapy.

 CN: Pharmacological and parenteral therapies; CL: Evaluate

The Client with Viral Hepatitis

29. 1. The fluid weight gain is of concern since the drug should be used with caution with impaired renal function. Dosage adjustment may be needed with renal insufficiency since the drug is excreted in the urine. Nausea, mild temperature elevation, and fatigue are symptoms that should be monitored, but are associated with hepatitis.

 CN: Pharmacological and parenteral therapies; CL: Synthesize

30. 4. Acetaminophen is toxic to the liver and should be avoided in a client with liver dysfunction. Increased periods of rest allow for liver regeneration. A low-fat, high-carbohydrate diet and dry toast to relieve nausea are appropriate.

 CN: Health promotion and maintenance; CL: Evaluate

31. 4. Hepatitis B is considered a sexually transmitted disease and students should observe safe-sex practices. Poor sanitary conditions in underdeveloped countries relate to spread of hepatitis A and E. Focusing on routes of transmission and avoidance of infection can prevent the spread of hepatitis; isolation in single rooms is not required. There is no vaccine for hepatitis D.

 CN: Reduction of risk potential; CL: Synthesize

32. 2. Liver inflammation and obstruction block the normal flow of bile. Excess bilirubin turns the skin and sclera yellow and the urine dark and frothy. Profound anorexia is also common. Tarry stools are indicative of gastrointestinal bleeding and would not be expected in hepatitis. Light- or clay-colored stools may occur in hepatitis owing to bile duct obstruction. Shortness of breath would be unexpected.

CN: Physiological adaptation; CL: Analyze

33. 1. The main route of transmission for hepatitis A is the oral-fecal route, rarely parenteral. Good handwashing before eating or preparing food (AF1). Percutaneous transmission is seen with hepatitis B, C, and D. Alpha-interferon is used for treatment of chronic hepatitis B and C.

CN: Safety and infection control; CL: Synthesize

34. 3. Clients with hepatitis C should receive genotype testing to determine the most effective treatment approach, and it must be done prior to the start of drug treatment with alpha interferon. There are six types of hepatitis C genotypes and clients have different responses to drugs depending on their genotype. For example, clients with genotype 2 or 3 are three times more likely to respond to treatment than those with genotype 1. The recommended course of duration of treatment also depends on genotype. Clients with genotype 2 or 3 usually have a 24-week course of treatment, whereas a 48-week course is recommended for clients with genotype 1. HCV has a high possibility of converting to chronic HCV and will not resolve in 2 to 4 months.

CN: Physiologic adaptation; CL: Apply

35. 2, 4, 5. Clients with chronic hepatitis C should abstain from alcohol as it can speed cirrhosis and end-stage liver disease. Clients should also check with their health care providers before taking any nonprescription or prescription medications, or herbal supplements. It is also important that clients who are infected with HCV be tested for HIV, as clients who have both HIV and HCV have a more rapid progression of liver disease than those who have HCV alone. Clients with HCV and nausea should be instructed to eat four to five times a day to help reduce anorexia and nausea. The client should obtain sufficient rest to manage the fatigue.

CN: Physiologic adaptation; CL: Synthesize

36. 4. During the convalescent or posticteric stage of hepatitis, fatigue and malaise are the most common problems. These symptoms usually disappear within 2 to 4 months. Fatigue and malaise are not evidence of a secondary infection. Hepatitis A is not treated by drug therapy. It is important that the client continue to balance activity with periods of rest.

CN: Reduction of risk potential; CL: Synthesize

37. 1. Treatment of hepatitis consists primarily of bed rest with bathroom privileges. Bed rest is maintained during the acute phase to reduce metabolic demands on the liver, thus increasing its blood supply and promoting liver cell

regeneration. When activity is gradually resumed, the client should be taught to rest before becoming overly tired. Although adequate fluid intake is important, it is not necessary to force fluids to treat hepatitis. Antibiotics are not used to treat hepatitis. Electrolyte imbalances are not typical of hepatitis.

 CN: Basic care and comfort; CL: Synthesize

38. 1. The prothrombin time may be prolonged because of decreased absorption of vitamin K and decreased production of prothrombin by the liver. The client should be assessed carefully for bleeding tendencies. Blood glucose and serum potassium and calcium levels are not affected by hepatitis.

 CN: Reduction of risk potential; CL: Analyze

39. 2. Low-fat, high-protein, high-carbohydrate diet is encouraged for a client with hepatitis to promote liver rejuvenation. Nutrition intake is important because clients may be anorexic and experience weight loss. Activity should be modified and adequate rest obtained to promote recovery. Social isolation should be avoided and education on preventing transmission should be provided; the client does not need to sleep in a separate room.

 CN: Health promotion and maintenance; CL: Synthesize

40. 3. The hepatitis A virus is transmitted via the fecal-oral route. It spreads through contaminated hands, water, and food, especially shellfish growing in contaminated water. Certain animal handlers are at risk for hepatitis A, particularly those handling primates. Frequent handwashing is probably the single most important preventive action. Insects do not transmit hepatitis A. Family members do not need to stay away from the client with hepatitis. It is not necessary to disinfect food and clothing.

 CN: Safety and infection control; CL: Synthesize

41. 4. The most appropriate goal for this client with hepatitis is to increase activity gradually as tolerated. Periods of alternating rest and activity should be included in the plan of care. There is no evidence that the client is physically immobile, unable to provide self-care, or needs to adapt to new energy levels.

 CN: Basic care and comfort; CL: Analyze

42. 4. The nurse should encourage the client to further verbalize feelings of isolation. Instead of dismissing these feelings or making assumptions about the cause of isolation, the nurse should allow clients to verbalize their fears and provide education on how to prevent infection transmission.

 CN: Psychosocial adaptation; CL: Synthesize

43. 3. Interferon alfa-2b (Intron A) most commonly causes flulike adverse effects, such as myalgia, arthralgia, headache, nausea, fever, and fatigue. Retinopathy is a potential adverse effect, but not a common one. Diarrhea may develop as an adverse effect. Clients are advised to administer the drug at bedtime and get adequate rest. Medications may be prescribed to treat the symptoms. The drug may also cause hematologic changes; therefore, laboratory tests such as a complete blood count and differential should be conducted monthly during drug therapy. Blood glucose laboratory values should be monitored for the development of hyperglycemia.

 CN: Pharmacological and parenteral therapies; CL: Analyze

44. 4. Hepatitis B is spread through exposure to blood or blood products and through high-risk sexual activity. Hepatitis B is considered to be a sexually transmitted disease. High-risk sexual activities include sex with multiple partners, unprotected sex with an infected individual, male homosexual activity, and sexual activity with IV drug users. College students are at high risk for development of hepatitis B and are encouraged to be immunized. Alcohol intake by itself does not predispose an individual to hepatitis B, but it can lead to high-risk behaviors such as unprotected sex. Good personal hygiene alone will not prevent the transmission of hepatitis B.

 CN: Safety and infection control; CL: Create

45. 2. The client should be able to verbalize the importance of reporting any bleeding tendencies that could be the result of a prolonged prothrombin time. Ascites is not typically a clinical manifestation of hepatitis; it is associated with cirrhosis. Alcohol use should be eliminated for at least 1 year after the diagnosis of hepatitis to allow the liver time to fully recover. There is no need for a client to be restricted to the home because hepatitis is not spread through casual contact between individuals.

 CN: Physiological adaptation; CL: Evaluate

The Client with Cirrhosis

46. 1. Clients with cirrhosis can develop hepatic encephalopathy caused by increased ammonia levels. Asterixis, a flapping tremor, is a characteristic symptom of increased ammonia levels. Bacterial action on increased protein in the bowel will increase ammonia levels and cause the encephalopathy to worsen. GI bleeding and protein consumed in the diet increase protein in the intestine and can elevate ammonia levels. Lactulose is given to reduce ammonia formation in the intestine and should not be held since neurological symptoms

are worsening. Bilirubin is associated with jaundice.

CN: Pharmacological and parenteral therapies; CL: Synthesize

47. 3. Hypokalemia is a precipitating factor in hepatic encephalopathy. A decrease in creatinine results from muscle atrophy; an increase in creatinine would indicate renal insufficiency. With liver dysfunction, increased aldosterone levels are seen. A decrease in serum protein will decrease colloid osmotic pressure and promote edema.

CN: Physiological adaptation; CL: Synthesize

48. 4. Portal hypertension and hypoalbuminemia as a result of cirrhosis cause a fluid shift into the peritoneal space causing ascites. In a cardiac or kidney problem, not cirrhosis, sodium can promote edema formation and subsequent decreased urine output. Edema does not migrate upward toward the heart to enhance its circulation. Although diuretics promote the excretion of excess fluid, occasionally forgetting or omitting a dose will not yield the ascites found in cirrhosis of the liver.

CN: Physiological adaptation; CL: Synthesize

49. 1, 2, 3, 4, 5. Constipation leads to increased ammonia production. Lactulose is a hyperosmotic laxative that reduces blood ammonia by acidifying the colon contents, which retards diffusion of nonionic ammonia from the colon to the blood while promoting its migration from the blood to the colon. Hepatic encephalopathy is considered a toxic or metabolic condition that causes cerebral edema; it affects a person's coordination and pupil reaction to light and accommodation. Food and fluids high in carbohydrates should be given because the liver is not synthesizing and storing glucose. Because exercise produces ammonia as a byproduct of metabolism, physical activity should be limited, not encouraged.

CN: Management of care; CL: Create

50. 3. Early clinical manifestations of cirrhosis are subtle and usually include gastrointestinal symptoms, such as anorexia, nausea, vomiting, and changes in bowel patterns. These changes are caused by the liver's altered ability to metabolize carbohydrates, proteins, and fats. Peripheral edema, ascites, and jaundice are later signs of liver failure and portal hypertension.

CN: Physiological adaptation; CL: Analyze

51. 2. Spironolactone (Aldactone) is a potassium-sparing diuretic; therefore, clients should be monitored closely for hyperkalemia. Other common adverse effects include abdominal cramping, diarrhea, dizziness, headache, and rash.

Constipation and dysuria are not common adverse effects of spironolactone. An irregular pulse is not an adverse effect of spironolactone but could develop if serum potassium levels are not closely monitored.

 CN: Pharmacological and parenteral therapies; CL: Analyze

52. 1. For clients who have cirrhosis without complications, a high-calorie, high-carbohydrate diet is preferred to provide an adequate supply of nutrients. In the early stages of cirrhosis, there is no need to restrict fat, protein, or sodium.

 CN: Physiological adaptation; CL: Apply

53. 2, 3, 4. Baking soda baths can decrease pruritis. Keeping nails short and rubbing with knuckles can decrease breakdown when scratching cannot be resisted, such as during sleep. Calamine lotions help relieve itching. Alcohol will increase skin dryness. Sodium in the diet will increase edema and weaken skin integrity.

 CN: Basic care and comfort; CL: Create

54. 2. General health promotion measures include maintaining good nutrition, avoiding infection, and abstaining from alcohol. Rest and sleep are essential, but an impaired liver may not be able to detoxify sedatives and barbiturates. Such drugs must be used cautiously, if at all, by clients with cirrhosis. The client does not need to limit contact with others but should exercise caution to stay away from ill people.

 CN: Health promotion and maintenance; CL: Synthesize

55. 4. Elevating the head of the bed will allow for increased lung expansion by decreasing the ascites pressing on the diaphragm. The client requires reassessment. A paracentesis is reserved for symptomatic clients with ascites with impaired respiration or abdominal pain not responding to other measures such as sodium restriction and diuretics. There is no indication for blood cultures. Heart sounds are assessed with the routine physical assessment.

 CN: Physiological adaptation; CL: Synthesize

56. 1. Ascites can compromise the action of the diaphragm and increase the client's risk of respiratory problems. Ascites also greatly increases the risk of skin breakdown. Frequent position changes are important, but the preferred position is Fowler's. Placing the client in Fowler's position helps facilitate the client's breathing by relieving pressure on the diaphragm. The other positions do not relieve pressure on the diaphragm.

 CN: Reduction of risk potential; CL: Synthesize

57. 1. Normal serum albumin is administered to reduce ascites. Hypoalbuminemia, a mechanism underlying ascites formation, results in decreased colloid osmotic pressure. Administering serum albumin increases the plasma colloid osmotic pressure, which causes fluid to flow from the tissue space into the plasma. Increased urine output is the best indication that the albumin is having the desired effect. An increased serum albumin level and increased ease of breathing may indirectly imply that the administration of albumin is effective in relieving the ascites. However, it is not as direct an indicator as increased urine output. Anorexia is not affected by the administration of albumin.

CN: Pharmacological and parenteral therapies; CL: Evaluate

58.

1. Affirm airway obstruction by the tube.
3. Deflate the tube by cutting with bedside scissors.
2. Remove the tube.
4. Apply oxygen via face mask.

The nurse should first assess the client to determine if the tube is obstructing the airway; assessment is done by assessing air flow. Once obstruction is established, the tube should be deflated and then quickly removed. A set of scissors should always be at the bedside to allow for emergency deflation of the balloon. Oxygen via face mask should then be applied once the tube is removed.

CN: Safety and infection control; CL: Synthesize

59. 3. The goal of abstinence from alcohol in clients with alcohol-induced cirrhosis is to improve the liver function; most clients have improved liver function when they abstain from alcohol. Clients with cirrhosis do not necessarily have delirium tremens. Abstaining from alcohol may allow the client to improve nutritional status, but additional dietary counseling may be needed to achieve that goal. Clients with cirrhosis may have weight gain from ascites, but this is managed with diuretics.

CN: Pharmacological and parenteral therapies; CL: Evaluate

60. 1. The client should be monitored closely for changes in mental status. Ammonia has a toxic effect on central nervous system tissue and produces an altered level of consciousness, marked by drowsiness and irritability. If this process is unchecked, the client may lapse into coma. Increasing ammonia levels are not detected by changes in blood pressure, urine output, or respirations.

CN: Physiological adaptation; CL: Analyze

61. 3. Lactulose increases intestinal motility, thereby trapping and expelling ammonia in the feces. An increase in the number of bowel movements is expected as an adverse effect. Lactulose does not affect urine output. Any improvements in mental status would be the result of increased ammonia elimination, not an adverse effect of the drug. Nausea and vomiting are not common adverse effects of lactulose.

CN: Pharmacological and parenteral therapies; CL: Apply

62. 60 mL $30\ \text{mL} = 1\ \text{oz}$

The following formula is used to calculate the correct dosage: $30\,\text{mL}/1\ \text{oz} = X\,\text{mL}/2\ \text{oz}$

$X = 60\ \text{mL}.$

CN: Pharmacological and parenteral therapies; CL: Apply

63. 2. The taste of lactulose is a problem for some clients. Mixing it with fruit juice, water, or milk can make it more palatable. Lactulose should not be given with antacids, which may inhibit its action. Lactulose should not be taken with a laxative because diarrhea is an adverse effect of the drug. Lactulose comes in the form of syrup for oral or rectal administration.

CN: Pharmacological and parenteral therapies; CL: Evaluate

64. 3. Clients with cirrhosis should be instructed to avoid constipation and straining at stool to prevent hemorrhage. The client with cirrhosis has bleeding tendencies because of the liver's inability to produce clotting factors. A low-protein and high-carbohydrate diet is recommended. Clients with cirrhosis should not take acetaminophen (Tylenol), which is potentially hepatotoxic. Aspirin also should be avoided if esophageal varices are present. Cirrhosis is a chronic disease.

CN: Reduction of risk potential; CL: Evaluate

65. 1. Immediately before a paracentesis, the client should empty the bladder to prevent perforation. The client will be placed in a high Fowler's position or seated on the side of the bed for the procedure. IV sedatives are not usually administered. The client does not need to be NPO.

CN: Reduction of risk potential; CL: Synthesize

66. 3. Edematous tissue is easily traumatized and must receive meticulous care. An alternating air pressure mattress will help decrease pressure on the edematous tissue. ROM exercises are important to maintain joint function, but they do not necessarily prevent skin breakdown. When abdominal skin is stretched taut due to ascites, it must be cleaned very carefully. The abdomen should not be massaged. Elevation of the lower extremities promotes venous return and decreases swelling.

CN: Reduction of risk potential; CL: Synthesize

Managing Care Quality and Safety

67. 4. Contact precautions are recommended for clients with hepatitis A. This includes wearing gloves for direct care. A gown is not required unless substantial contact with the client is anticipated. It is not necessary to wear a mask. The client does not need a private room unless incontinent of stool.

CN: Safety and infection control; CL: Create

68. 4. A change in a client's baseline vital signs should be brought to the physician's attention immediately. In this case, the client's heart rate has increased and the rhythm appears to have changed; the physician may prescribe an ECG to determine if treatment is necessary. The nurse should also have a complete set of current vital signs as well as a physical assessment before providing the physician information using the SBAR format. The nutritional as well as psychological needs of a client must be addressed but are not first priority. A rash that develops after a new antibiotic is started must be brought to the physician's attention; however, this client is stable and is not the first priority. The nurse is responsible to facilitate discussion between the client, the client's family, and the physician but only after all of the immediate physical and psychological needs of all clients have been met.

CN: Reduction of risk potential; CL: Synthesize

69.

1. The client with cirrhosis who became confused and disoriented during the night.

3. The client with acute pancreatitis who is requesting pain medication.

2. The client who is 1 day postoperative following a cholecystectomy and has a t-tube inserted.

4. The client with hepatitis B who has questions about discharge instructions.

The nurse should first assess the client with cirrhosis to ensure the client's safety and assess the client for the onset of hepatic encephalopathy. The nurse should then assess the client with acute pancreatitis who is requesting pain medication and administer the needed medication. The nurse should next assess the client who underwent a cholecystectomy and is 1 day postoperative to make sure that the t-tube is draining and that the client is performing postoperative breathing exercises. This client's safety is not at risk and the client is not reporting having pain. The nurse can speak last with the client with hepatitis B who has questions about discharge instructions because this client's issues are not urgent.

 CN: Management of care; CL: Synthesize

70. 2. Hepatitis C is usually transmitted through blood exposure or needlesticks. A hepatitis C vaccine is currently under development, but it is not available for use. The first line of defense against hepatitis B is the hepatitis B vaccine. Hepatitis C is not transmitted through feces or urine. Wearing a gown and mask will not prevent transmission of the hepatitis C virus if the caregiver comes in contact with infected blood or needles.

 CN: Safety and infection control; CL: Apply

71.

1. Silence the pump alarm.

3. Assess the client's access site for infiltration or inflammation.

4. Assess the tubing for hindrances to flow of solution.

2. Determine if the infusion pump is plugged into an electrical outlet.

Silencing the alarm will eliminate a stress to the client and allow the nurse to focus on the task at hand. The nurse should then assess the access site to note if the needle is inserted in the vein or if there is tissue trauma, infiltration, or inflammation. Next, the nurse should check for kinks in the tubing. Finally, the nurse can plug the pump into the wall to allow the battery to become recharged.

 CN: Pharmacological and parenteral therapies; CL: Synthesize

TEST 8: The Client with Endocrine Health Problems

The Client with Disorders of the Thyroid

1. The nurse is completing a health assessment of a 42-year-old female with suspected Graves' disease. The nurse should assess this client for:

☐ **1.** Anorexia.
☐ **2.** Tachycardia.
☐ **3.** Weight gain.
☐ **4.** Cold skin.

2. When conducting a health history with a female client with thyrotoxicosis, the nurse should ask about which of the following changes in the menstrual cycle?

☐ **1.** Dysmenorrhea.
☐ **2.** Metrorrhagia.
☐ **3.** Oligomenorrhea.
☐ **4.** Menorrhagia.

3. A 34-year-old female is diagnosed with hypothyroidism. The nurse should assess the client for which of the following? Select all that apply.

☐ **1.** Rapid pulse.
☐ **2.** Decreased energy and fatigue.
☐ **3.** Weight gain of 10 lb (4.5 kg).
☐ **4.** Fine, thin hair with hair loss.
☐ **5.** Constipation.
☐ **6.** Menorrhagia.

4. Propylthiouracil (PTU) is prescribed for a client with Graves' disease. The nurse should teach the client to immediately report which of the following?

☐ **1.** Sore throat.
☐ **2.** Painful, excessive menstruation.
☐ **3.** Constipation.
☐ **4.** Increased urine output.

5. A client with thyrotoxicosis says to the nurse, “I am so irritable. I am having problems at work because I lose my temper very easily.” Which of the following responses by the nurse would give the client the **most** accurate explanation of her behavior?

☐ **1.** “Your behavior is caused by temporary confusion brought on by your illness.”

☐ **2.** “Your behavior is caused by the excess thyroid hormone in your system.”
☐ **3.** “Your behavior is caused by your worrying about the seriousness of your illness.”
☐ **4.** “Your behavior is caused by the stress of trying to manage a career and cope with illness.”

6. The nurse is evaluating a client with hyperthyroidism who is taking Propylthiouracil (PTU) 100 mg/day in three divided doses for maintenance therapy. Which of the following statements from the client indicates the desired outcome of the drug?
☐ **1.** “I have excess energy throughout the day.”
☐ **2.** “I am able to sleep and rest at night.”
☐ **3.** “I have lost weight since taking this medication.”
☐ **4.** “I do perspire throughout the entire day.”

7. The nurse should teach the client with Graves' disease to prevent corneal irritation from mild exophthalmos by:
☐ **1.** Massaging the eyes at regular intervals.
☐ **2.** Instilling an ophthalmic anesthetic as prescribed.
☐ **3.** Wearing dark-colored glasses.
☐ **4.** Covering both eyes with moistened gauze pads.

8. A client with Graves' disease is treated with radioactive iodine (RAI) in the form of sodium iodide ^{131}I. Which of the following statements by the nurse will explain to the client how the drug works?
☐ **1.** “The RAI stabilizes the thyroid hormone levels before a thyroidectomy.”
☐ **2.** “The RAI reduces uptake of thyroxine and thereby improves your condition.”
☐ **3.** “The RAI lowers the levels of thyroid hormones by slowing your body's production of them.”
☐ **4.** “The RAI destroys thyroid tissue so that thyroid hormones are no longer produced.”

9. After treatment with radioactive iodine (RAI) in the form of sodium iodide ^{131}I, the nurse teaches the client to:
☐ **1.** Monitor for signs and symptoms of hyperthyroidism.
☐ **2.** Rest for 1 week to prevent complications of the medication.
☐ **3.** Take thyroxine replacement for the remainder of the client's life.
☐ **4.** Assess for hypertension and tachycardia resulting from altered thyroid activity.

10. A client with a large goiter is scheduled for a subtotal thyroidectomy to

treat thyrotoxicosis. Saturated solution of potassium iodide (SSKI) is prescribed preoperatively for the client. The expected outcome of using this drug is that it helps:

☐ **1.** Slow progression of exophthalmos.
☐ **2.** Reduce the vascularity of the thyroid gland.
☐ **3.** Decrease the body's ability to store thyroxine.
☐ **4.** Increase the body's ability to excrete thyroxine.

11. The nurse is administering a saturated solution of potassium iodide (SSKI). The nurse should:

☐ **1.** Pour the solution over ice chips.
☐ **2.** Mix the solution with an antacid.
☐ **3.** Dilute the solution with water, milk, or fruit juice and have the client drink it with a straw.
☐ **4.** Disguise the solution in a pureed fruit or vegetable.

12. Following a subtotal thyroidectomy, the nurse asks the client to speak immediately upon regaining consciousness. The nurse does this to monitor for signs of which of the following?

☐ **1.** Internal hemorrhage.
☐ **2.** Decreasing level of consciousness.
☐ **3.** Laryngeal nerve damage.
☐ **4.** Upper airway obstruction.

13. A client who has undergone a subtotal thyroidectomy is subject to complications in the first 48 hours after surgery. The nurse should obtain and keep at the bedside equipment to:

☐ **1.** Begin total parenteral nutrition.
☐ **2.** Start a cutdown infusion.
☐ **3.** Administer tube feedings.
☐ **4.** Perform a tracheotomy.

14. One day following a subtotal thyroidectomy, a client begins to have tingling in the fingers and toes. The nurse should **first**:

☐ **1.** Encourage the client to flex and extend the fingers and toes.
☐ **2.** Notify the physician.
☐ **3.** Assess the client for thrombophlebitis.
☐ **4.** Ask the client to speak.

15. Which of the following medications should be available to provide emergency treatment if a client develops tetany after a subtotal thyroidectomy?

☐ **1.** Sodium phosphate.
☐ **2.** Calcium gluconate.

☐ **3.** Echothiophate iodide.
☐ **4.** Sodium bicarbonate.

16. A 60-year-old female is diagnosed with hypothyroidism. The nurse should assess the client for which of the following?
☐ **1.** Tachycardia.
☐ **2.** Weight gain.
☐ **3.** Diarrhea.
☐ **4.** Nausea.

17. The nurse should assess a client with hypothyroidism for which of the following?
☐ **1.** Corneal abrasion due to inability to close the eyelids.
☐ **2.** Weight loss due to hypermetabolism.
☐ **3.** Fluid loss due to diarrhea.
☐ **4.** Decreased activity due to fatigue.

18. When discussing recent onset of feelings of sadness and depression in a client with hypothyroidism, the nurse should inform the client that these feelings are:
☐ **1.** The effects of thyroid hormone replacement therapy and will diminish over time.
☐ **2.** Related to thyroid hormone replacement therapy and will not diminish over time.
☐ **3.** A normal part of having a chronic illness.
☐ **4.** Most likely related to low thyroid hormone levels and will improve with treatment.

19. The nurse is instructing the client with hypothyroidism who takes levothyroxine (Synthroid) 100 mcg, digoxin (Lanoxin) and simvastatin (Zocor). Teaching regarding medications is effective if the client will take:
☐ **1.** The Synthroid with breakfast and the other medications after breakfast.
☐ **2.** The Synthroid before breakfast and the other medications 4 hours later.
☐ **3.** All medications together 1 hour after eating breakfast.
☐ **4.** All medications before going to bed.

The Client with Diabetes Mellitus

20. The nurse is teaching a diabetic client using an empowerment approach. The nurse should initiate teaching by asking which of the following?

☐ **1.** "How much does your family need to be involved in learning about your condition?"
☐ **2.** "What is required for your family to manage your symptoms?"
☐ **3.** "What activities are most important for you to be able to maintain control of your diabetes?"
☐ **4.** "What do you know about your medications and condition?"

21. The nurse is obtaining a health history from a client with diabetes mellitus who has been taking insulin for many years. Currently the client reports having periods of hypoglycemia followed by periods of hyperglycemia. The nurse should specifically ask if the client is

☐ **1.** Eating snacks between meals.
☐ **2.** Initiating the use of the insulin pump.
☐ **3.** Injecting insulin at a site of lipodystrophy.
☐ **4.** Adjusting insulin according to blood glucose levels.

22. A nurse is participating in a diabetes screening program. Who of the following is (are) at risk for developing type 2 diabetes? Select all that apply.

☐ **1.** A 32-year-old female who delivered a 9½-lb (4,309-g) infant.
☐ **2.** A 44-year-old Native American (First Nations) who has a body mass index (BMI) of 32.
☐ **3.** An 18-year-old immigrant from Mexico who jogs four times a week.
☐ **4.** A 55-year-old Asian who has hypertension and two siblings with type 2 diabetes.
☐ **5.** A 12-year-old who is overweight.

23. An adult with type 2 diabetes mellitus has been NPO since 10 PM in preparation for having a nephrectomy the next day. At 6 AM on the day of surgery, the nurse reviews the client's chart and laboratory results. Which finding should the nurse report to the physician?

☐ **1.** Urine output of 350 mL in 8 hours.
☐ **2.** Urine specific gravity of 1.015.
☐ **3.** Potassium of 4.0 mEq (4 mmol/L).
☐ **4.** Blood glucose of 140 mg/dL (7.8 mmol/L).

24. The nurse is checking the laboratory results of an adult client with type 1 diabetes (see chart). What laboratory result indicates a problem that should be managed?

☐ **1.** Blood glucose.
☐ **2.** Total cholesterol.
☐ **3.** Hemoglobin.
☐ **4.** Low-density lipoprotein (LDL) cholesterol.

Laboratory Results

Test	Result
Blood glucose	192 mg/dL (10.7 mmol/L)
Total cholesterol	250 mg/dL (6.5 mmol/L)
Hemoglobin	12.3 mg/dL (123 g/L)
Low-density lipoprotein cholesterol	125 mg/dL (3.2 mmol/L)

25. A client with type 1 diabetes mellitus has diabetic ketoacidosis. Which of the following findings has the **greatest** effect on fluid loss?

☐ **1.** Hypotension.
☐ **2.** Decreased serum potassium level.
☐ **3.** Rapid, deep respirations.
☐ **4.** Warm, dry skin.

26. A client is to receive glargine insulin in addition to a dose of aspart. When the nurse checks the blood glucose level at the bedside, it is greater than 200 mg/dL (11.1 mmol/L). How should the nurse administer the insulins?

☐ **1.** Put air into the glargine insulin vial, and then air into the aspart insulin vial, and draw up the correct dose of aspart insulin first.
☐ **2.** Roll the glargine insulin vial, then roll the aspart insulin vial. Draw up the longer-acting glargine insulin first.
☐ **3.** Shake both vials of insulin before drawing up each dose in separate insulin syringes.
☐ **4.** Put air into the glargine insulin vial, and draw up the correct dose in an insulin syringe; then, with a different insulin syringe, put air into the aspart vial and draw up the correct dose.

27. The client with type 2 insulin-requiring diabetes asks the nurse about having alcoholic beverages. Which of the following is the **best** response by the nurse?

☐ **1.** “You can have one or two drinks a day as long as you have something to

eat with them."

☐ **2.** "Alcohol is detoxified in the liver, so it is not a good idea for you to drink anything with alcohol."

☐ **3.** "If you are going to have a drink, it is best to consume alcohol on an empty stomach."

☐ **4.** "If you do have a drink, the blood glucose value may be elevated at bedtime, and you should skip having a snack."

28. An adult client with type 2 diabetes is taking metformin (Glucophage) 1,000 mg two times every day. After the nurse provides instructions regarding the interaction of alcohol and metformin, the nurse evaluates that the client understands the instructions when the client says:

☐ **1.** "If I know I'll be having alcohol, I must not take metformin; I could develop lactic acidosis."

☐ **2.** "If my physician approves, I may drink alcohol with my metformin."

☐ **3.** "Adverse effects I should watch for are feeling excessively energetic, unusual muscle stiffness, low back pain, and a rapid heartbeat."

☐ **4.** "If I feel bloated, I should call my physician."

29. A client has recently been diagnosed with type 2 diabetes mellitus and is to take tolbutamide. When teaching the client about the drug, the nurse explains that tolbutamide is believed to lower the blood glucose level by which of the following actions?

☐ **1.** Potentiating the action of insulin.

☐ **2.** Lowering the renal threshold of glucose.

☐ **3.** Stimulating insulin release from functioning beta cells in the pancreas.

☐ **4.** Combining with glucose to render it inert.

30. Which information should the nurse include when developing a teaching plan for a client newly diagnosed with type 2 diabetes mellitus? Select all that apply.

☐ **1.** A major risk factor for complications is obesity and central abdominal obesity.

☐ **2.** Supplemental insulin is mandatory for controlling the disease.

☐ **3.** Exercise increases insulin resistance.

☐ **4.** The primary nutritional source requiring monitoring in the diet is carbohydrates.

☐ **5.** Annual eye and foot examinations are recommended by the American and Canadian Diabetes Associations.

31. When teaching the diabetic client about foot care, the nurse should instruct the client to do which of the following?

☐ **1.** Avoid going barefoot.
☐ **2.** Buy shoes a half size larger.
☐ **3.** Cut toenails at angles.
☐ **4.** Use heating pads for sore feet.

32. A client with diabetes mellitus asks the nurse to recommend something to remove corns from the toes. The nurse should advise the client to:
☐ **1.** Apply a high-quality corn plaster to the area.
☐ **2.** Consult a physician or podiatrist about removing the corns.
☐ **3.** Apply iodine to the corns before peeling them off.
☐ **4.** Soak the feet in borax solution to peel off the corns.

33. A client with diabetes mellitus comes to the clinic for a regular 3-month follow-up appointment. The nurse notes several small bandages covering cuts on the client's hands. The client says, “I'm so clumsy. I'm always cutting my finger cooking or burning myself on the iron.” Which of the following responses by the nurse would be **most** appropriate?
☐ **1.** “Wash all wounds in isopropyl alcohol.”
☐ **2.** “Keep all cuts clean and covered.”
☐ **3.** “Why don't you have your children do the cooking and ironing?”
☐ **4.** “You really should be fine as long as you take your daily medication.”

34. The client with diabetes mellitus says, “If I could just avoid what you call carbohydrates in my diet, I guess I would be okay.” The nurse should base the response to this comment on the knowledge that diabetes affects metabolism of which of the following?
☐ **1.** Carbohydrates only.
☐ **2.** Fats and carbohydrates only.
☐ **3.** Protein and carbohydrates only.
☐ **4.** Proteins, fats, and carbohydrates.

35. A client with type 1 diabetes mellitus is admitted to the emergency department. Which of the following respiratory patterns requires immediate action?
☐ **1.** Deep, rapid respirations with long expirations.
☐ **2.** Shallow respirations alternating with long expirations.
☐ **3.** Regular depth of respirations with frequent pauses.
☐ **4.** Short expirations and inspirations.

36. The client has been recently diagnosed with type 2 diabetes, and is taking metformin (Glucophage) two times per day, 1,000 mg before breakfast and 1,000 mg before supper. The client is experiencing diarrhea, nausea, vomiting, abdominal bloating, and anorexia on admission to the hospital. The

admission prescriptions include metformin (Glucophage). The nurse should do which of the following? Select all that apply.

☐ **1.** Discontinue the metformin (Glucophage).
☐ **2.** Administer glargine (Lantus) insulin rather than the metformin (Glucophage).
☐ **3.** Inform the client that the adverse effects of diarrhea, nausea, and upset stomach gradually subside over time.
☐ **4.** Assess the client's renal function.
☐ **5.** Monitor the client's glucose value prior to each meal.

37. A client is prescribed exenatide (Byetta). The nurse should instruct the client about which of the following? Select all that apply.

☐ **1.** To review the one-time set-up for each new pen.
☐ **2.** Inject in the thigh, abdomen, or upper arm.
☐ **3.** Administer the drug within 60 minutes before morning and evening meals.
☐ **4.** That there is a low incidence of hypoglycemia when taken with insulin.
☐ **5.** If a dose is missed, take the dose of exenatide (Byetta) as soon as the client remembers.

38. The nurse is administering the initial dose of a rapid-acting insulin to a client with type 1 diabetes. The nurse should assess the client for hypoglycemia within:

☐ **1.** 0.5 hours.
☐ **2.** 1 hour.
☐ **3.** 2 hours.
☐ **4.** 3 hours.

39. The nurse notes grapefruit juice on the breakfast tray of a client who is taking repaglinide. The nurse should:

☐ **1.** Contact the manager of the Food and Nutrition Department.
☐ **2.** Request that the dietitian discuss the drug-food interaction between repaglinide and grapefruit juice with the client.
☐ **3.** Substitute a half grapefruit in place of the grapefruit juice.
☐ **4.** Remove the grapefruit juice from the client's tray and bring another juice of the client's preference.

40. Which of the following findings should the nurse report to the client's physician for a client with unstable type 1 diabetes mellitus? Select all that apply.

☐ **1.** Systolic blood pressure, 145 mm Hg.
☐ **2.** Diastolic blood pressure, 87 mm Hg.

☐ **3.** High-density lipoprotein (HDL), 30 mg/dL (1.7 mmol/L).
☐ **4.** Glycosylated hemoglobin (HbA_{1c}), 10.2% (0.1).
☐ **5.** Triglycerides, 425 mg/dL (23.6 mmol/L).
☐ **6.** Urine ketones, negative.

41. The nurse should caution the client with diabetes mellitus who is taking a sulfonylurea that alcoholic beverages should be avoided while taking these drugs because they can cause which of the following?
☐ **1.** Hypokalemia.
☐ **2.** Hyperkalemia.
☐ **3.** Hypocalcemia.
☐ **4.** Disulfiram (Antabuse)–like symptoms.

42. Which of the following conditions is the **most** significant risk factor for the development of type 2 diabetes mellitus?
☐ **1.** Cigarette smoking.
☐ **2.** High-cholesterol diet.
☐ **3.** Obesity.
☐ **4.** Hypertension.

43. Which of the following indicates a potential complication of diabetes mellitus?
☐ **1.** Inflamed, painful joints.
☐ **2.** Blood pressure of 160/100 mm Hg.
☐ **3.** Stooped appearance.
☐ **4.** Hemoglobin of 9 g/dL (90 g/L).

44. The nurse is teaching the client about home blood glucose monitoring. Which of the following blood glucose measurements indicates hypoglycemia?
☐ **1.** 59 mg/dL (3.3 mmol/L).
☐ **2.** 75 mg/dL (4.2 mmol/L).
☐ **3.** 108 mg/dL (6 mmol/L).
☐ **4.** 119 mg/dL (6.6 mmol/L).

45. Assessment of the diabetic client for common complications should include examination of the:
☐ **1.** Abdomen.
☐ **2.** Lymph glands.
☐ **3.** Pharynx.
☐ **4.** Eyes.

46. The client with type 1 diabetes mellitus is taught to take isophane insulin suspension NPH (Humulin N) at 5 PM each day. The client should be instructed

that the **greatest** risk of hypoglycemia will occur at about what time?

☐ **1.** 11 AM, shortly before lunch.
☐ **2.** 1 PM, shortly after lunch.
☐ **3.** 6 PM, shortly after dinner.
☐ **4.** 1 AM, while sleeping.

47. A nurse is teaching a client with type 1 diabetes mellitus who jogs daily about the preferred sites for insulin absorption. What is the **most** appropriate site for a client who jogs?

☐ **1.** Arms.
☐ **2.** Legs.
☐ **3.** Abdomen.
☐ **4.** Iliac crest.

48. A client with diabetes is taking insulin lispro (Humalog) injections. The nurse should advise the client to eat:

☐ **1.** Within 10 to 15 minutes after the injection.
☐ **2.** 1 hour after the injection.
☐ **3.** At any time, because timing of meals with lispro injections is unnecessary.
☐ **4.** 2 hours before the injection.

49. The **best** indicator that the client has learned how to give an insulin self-injection correctly is when the client can:

☐ **1.** Perform the procedure safely and correctly.
☐ **2.** Critique the nurse's performance of the procedure.
☐ **3.** Explain all steps of the procedure correctly.
☐ **4.** Correctly answer a posttest about the procedure.

The nurse is instructing the client on insulin administration. The client is performing a return demonstration for preparing the insulin. The client's morning dose of insulin is 10 units of regular and 22 units of NPH. The nurse checks the dose accuracy with the client. The nurse determines that the client has prepared the correct dose when the syringe reads how many units?

_____ units.

51. Angiotensin-converting enzyme (ACE) inhibitors may be prescribed for the client with diabetes mellitus to reduce vascular changes and possibly prevent or delay development of:

☐ **1.** Chronic obstructive pulmonary disease (COPD).
☐ **2.** Pancreatic cancer.
☐ **3.** Renal failure.

☐ **4.** Cerebrovascular accident.

52. The nurse should teach the diabetic client that which of the following is the **most** common symptom of hypoglycemia?

☐ **1.** Nervousness.
☐ **2.** Anorexia.
☐ **3.** Kussmaul's respirations.
☐ **4.** Bradycardia.

53. The nurse is assessing the client's use of medications. Which of the following medications may cause a complication with the treatment plan of a client with diabetes?

☐ **1.** Aspirin.
☐ **2.** Steroids.
☐ **3.** Sulfonylureas.
☐ **4.** Angiotensin-converting enzyme (ACE) inhibitors.

54. A client with type 1 diabetes mellitus has influenza. The nurse should instruct the client to:

☐ **1.** Increase the frequency of self-monitoring (blood glucose testing).
☐ **2.** Reduce food intake to diminish nausea.
☐ **3.** Discontinue that dose of insulin if unable to eat.
☐ **4.** Take half of the normal dose of insulin.

55. Which of the following is a priority goal for the diabetic client who is taking insulin and has nausea and vomiting from a viral illness or influenza?

☐ **1.** Obtaining adequate food intake.
☐ **2.** Managing own health.
☐ **3.** Relieving pain.
☐ **4.** Increasing activity.

56. A client with diabetes begins to cry and says, “I just cannot stand the thought of having to give myself a shot every day.” Which of the following would be the **best** response by the nurse?

☐ **1.** “If you do not give yourself your insulin shots, you will die.”
☐ **2.** “We can teach your daughter to give the shots so you will not have to do it.”
☐ **3.** “I can arrange to have a home care nurse give you the shots every day.”
☐ **4.** “What is it about giving yourself the insulin shots that bothers you?”

The Client with Pituitary Adenoma

57. A client is to have a transsphenoidal hypophysectomy to remove a large, invasive pituitary tumor. The nurse should instruct the client that the surgery will be performed through an incision in the:

☐ **1.** Back of the mouth.
☐ **2.** Nose.
☐ **3.** Sinus channel below the right eye.
☐ **4.** Upper gingival mucosa in the space between the upper gums and lip.

58. To help minimize the risk of postoperative respiratory complications after a hypophysectomy, during preoperative teaching, the nurse should instruct the client how to:

☐ **1.** Use incentive spirometry.
☐ **2.** Turn in bed.
☐ **3.** Take deep breaths.
☐ **4.** Cough.

59. Following a transsphenoidal hypophysectomy, the nurse should assess the client for:

☐ **1.** Cerebrospinal fluid (CSF) leak.
☐ **2.** Fluctuating blood glucose levels.
☐ **3.** Cushing's syndrome.
☐ **4.** Cardiac arrhythmias.

60. A male client expresses concern about how a hypophysectomy will affect his sexual function. Which of the following statements provides the **most** accurate information about the physiologic effects of hypophysectomy?

☐ **1.** Removing the source of excess hormone should restore the client's libido, erectile function, and fertility.
☐ **2.** Potency will be restored, but the client will remain infertile.
☐ **3.** Fertility will be restored, but impotence and decreased libido will persist.
☐ **4.** Exogenous hormones will be needed to restore erectile function after the adenoma is removed.

61. Before undergoing a transsphenoidal hypophysectomy for pituitary adenoma, the client asks the nurse how the surgeon will close the incision made in the dura. The nurse should respond based on the knowledge that:

☐ **1.** Dissolvable sutures are used to close the dura.

☐ **2.** Nasal packing provides pressure until normal wound healing occurs.
☐ **3.** A patch is made with a piece of fascia.
☐ **4.** A synthetic mesh is placed to facilitate healing.

62. Initial treatment for a cerebrospinal fluid (CSF) leak after transsphenoidal hypophysectomy would **most** likely involve:
☐ **1.** Repacking the nose.
☐ **2.** Returning the client to surgery.
☐ **3.** Enforcing bed rest with the head of the bed elevated.
☐ **4.** Administering high-dose corticosteroid therapy.

63. To provide oral hygiene for a client recovering from transsphenoidal hypophysectomy, the nurse should instruct the client to:
☐ **1.** Rinse the mouth with saline solution.
☐ **2.** Perform frequent toothbrushing.
☐ **3.** Clean the teeth with an electric toothbrush.
☐ **4.** Floss the teeth thoroughly.

64. The nurse teaches the client to report signs and symptoms of which potential complication after hypophysectomy?
☐ **1.** Acromegaly.
☐ **2.** Cushing's disease.
☐ **3.** Diabetes mellitus.
☐ **4.** Hypopituitarism.

65. After pituitary surgery, the nurse should assess the client for which of the following?
☐ **1.** Urine specific gravity less than 1.010.
☐ **2.** Urine output between 1 and 2 L/day.
☐ **3.** Blood glucose level higher than 300 mg/dL (16.7 mmol/L).
☐ **4.** Urine negative for glucose and ketones.

66. Vasopressin is administered to the client with diabetes insipidus because it:
☐ **1.** Decreases blood pressure.
☐ **2.** Increases tubular reabsorption of water.
☐ **3.** Increases release of insulin from the pancreas.
☐ **4.** Decreases glucose production within the liver.

67. Which of the following indicates that the client with diabetes insipidus understands how to manage care?
☐ **1.** The client will maintain normal fluid and electrolyte balance.
☐ **2.** The client will select a diabetic diet correctly.

☐ **3.** The client will state dietary restrictions.
☐ **4.** The client will exhibit serum glucose level within normal range.

The Client with Addison's Disease

68. The nurse is instructing a young adult with Addison's disease how to adjust the dose of glucocorticoids. The nurse should explain that the client may need an increased dosage of glucocorticoids in which of the following situations?

☐ **1.** Completing the spring semester of school.
☐ **2.** Gaining 4 lb (1.8 kg).
☐ **3.** Becoming engaged.
☐ **4.** Undergoing a root canal.

69. Which of the following is the **priority** for a client in addisonian crisis?

☐ **1.** Controlling hypertension.
☐ **2.** Preventing irreversible shock.
☐ **3.** Preventing infection.
☐ **4.** Relieving anxiety.

70. Which of the following would be an expected finding in a client with adrenal crisis (addisonian crisis)?

☐ **1.** Fluid retention.
☐ **2.** Pain.
☐ **3.** Peripheral edema.
☐ **4.** Hunger.

71. The client is receiving an IV infusion of 5% dextrose in normal saline running at 125 mL/h. When hanging a new bag of fluid, the nurse notes swelling and hardness at the infusion site. The nurse should **first**:

☐ **1.** Discontinue the infusion.
☐ **2.** Apply a warm soak to the site.
☐ **3.** Stop the flow of solution temporarily.
☐ **4.** Irrigate the needle with normal saline.

72. The client's wife asks the nurse whether the IV infusion is meeting her husband's nutritional needs because he has vomited several times. The nurse's response should be based on the knowledge that 1 L of 5% dextrose in normal saline solution delivers:

☐ **1.** 170 cal.
☐ **2.** 250 cal.
☐ **3.** 340 cal.

☐ **4.** 500 cal.

73. A client with Addison's disease is admitted to the medical unit. The client has fluid and electrolyte loss due to inadequate fluid intake and to fluid loss secondary to inadequate adrenal hormone secretion. As the client's oral intake increases, which of the following fluids would be **most** appropriate?

☐ **1.** Milk and diet soda.
☐ **2.** Water and eggnog.
☐ **3.** Bouillon and juice.
☐ **4.** Coffee and milkshakes.

74. After stabilization of Addison's disease, the nurse teaches the client about stress management. The nurse should instruct the client to:

☐ **1.** Remove all sources of stress from daily life.
☐ **2.** Use relaxation techniques such as music.
☐ **3.** Take antianxiety drugs daily.
☐ **4.** Avoid discussing stressful experiences.

75. When teaching a client newly diagnosed with primary Addison's disease, the nurse should explain that the disease results from:

☐ **1.** Insufficient secretion of growth hormone (GH).
☐ **2.** Dysfunction of the hypothalamic pituitary.
☐ **3.** Idiopathic atrophy of the adrenal gland.
☐ **4.** Oversecretion of the adrenal medulla.

76. The nurse is conducting discharge education with a client newly diagnosed with Addison's disease. Which information should be included in the client and family teaching plan? Select all that apply.

☐ **1.** Addison's disease will resolve over a few weeks, requiring no further treatment.
☐ **2.** Avoiding stress and maintaining a balanced lifestyle will minimize risk for exacerbations.
☐ **3.** Fatigue, weakness, dizziness, and mood changes need to be reported to the physician.
☐ **4.** A medical identification bracelet should be worn.
☐ **5.** Family members need to be informed about the warning signals of adrenal crisis.
☐ **6.** Dental work or surgery will require adjustment of daily medication.

77. The nurse should assess a client with Addison's disease for which of the following?

☐ **1.** Weight gain.
☐ **2.** Hunger.

☐ **3.** Lethargy.
☐ **4.** Muscle spasms.

78. Which topic is **most** important to include in the teaching plan for a client newly diagnosed with Addison's disease who will be taking corticosteroids?
☐ **1.** The importance of watching for signs of hyperglycemia.
☐ **2.** The need to adjust the steroid dose based on dietary intake and exercise.
☐ **3.** To notify the health care provider when the blood pressure is suddenly high.
☐ **4.** How to decrease the dose of the corticosteroids when the client experiences stress.

79. The client with Addison's disease is taking glucocorticoids at home. Which of the following statements indicate that the client understands how to take the medication?
☐ **1.** "Various circumstances increase the need for glucocorticoids, so I will need to adjust the dosage."
☐ **2.** "My need for glucocorticoids will stabilize and I will be able to take a predetermined dose once a day."
☐ **3.** "Glucocorticoids are cumulative, so I will take a dose every third day."
☐ **4.** "I must take a dose every 6 hours to ensure consistent blood levels of glucocorticoids."

80. Cortisone acetate and fludrocortisone acetate are prescribed as replacement therapy for a client with Addison's disease. What administration schedule should be followed for this therapy?
☐ **1.** Take both drugs three times a day.
☐ **2.** Take the entire dose of both drugs first thing in the morning.
☐ **3.** Take all the fludrocortisone acetate and two-thirds of the cortisone acetate in the morning, and take the remaining cortisone acetate in the afternoon.
☐ **4.** Take half of each drug in the morning and the remaining half of each drug at bedtime.

81. The nurse should tell the client to do which of the following when teaching the client about taking oral glucocorticoids?
☐ **1.** "Take your medication with a full glass of water."
☐ **2.** "Take your medication on an empty stomach."
☐ **3.** "Take your medication at bedtime to increase absorption."
☐ **4.** "Take your medication with meals or with an antacid."

82. Which of the following is the **best** indicator for determining whether a client with Addison's disease is receiving the correct amount of glucocorticoid replacement?

☐ **1.** Skin turgor.
☐ **2.** Temperature.
☐ **3.** Thirst.
☐ **4.** Daily weight.

83. Which of the following indicates that the client with Addison's disease is receiving too much glucocorticoid replacement?
☐ **1.** Anorexia.
☐ **2.** Dizziness.
☐ **3.** Rapid weight gain.
☐ **4.** Poor skin turgor.

84. Which of the following is a priority outcome for the client with Addison's disease?
☐ **1.** Maintenance of medication compliance.
☐ **2.** Avoidance of normal activities with stress.
☐ **3.** Adherence to a 2-g sodium diet.
☐ **4.** Prevention of hypertensive episodes.

85. The client with Addison's disease should anticipate the need for increased glucocorticoid supplementation in which of the following situations?
☐ **1.** Returning to work after a weekend.
☐ **2.** Going on vacation.
☐ **3.** Having oral surgery.
☐ **4.** Having a routine medical checkup.

86. The nurse should teach the client with Addison's disease that the bronze-colored skin is thought to be caused by which of the following?
☐ **1.** Hypersensitivity to sun exposure.
☐ **2.** Increased serum bilirubin level.
☐ **3.** Adverse effects of the glucocorticoid therapy.
☐ **4.** Increased secretion of adrenocorticotropic hormone (ACTH).

The Client with Cushing's Disease

87. A client reports that she has gained weight and that her face and body are “rounder,” while her legs and arms have become thinner. A tentative diagnosis of Cushing's disease is made. The nurse should further assess the client for:

☐ **1.** Orthostatic hypotension.
☐ **2.** Muscle hypertrophy in the extremities.
☐ **3.** Bruised areas on the skin.
☐ **4.** Decreased body hair.

88. A client diagnosed with Cushing's syndrome is admitted to the hospital and scheduled for a dexamethasone suppression test. During this test, the nurse should:

☐ **1.** Collect a 24-hour urine specimen to measure serum cortisol levels.
☐ **2.** Administer 1 mg of dexamethasone orally at night and obtain serum cortisol levels the next morning.
☐ **3.** Draw blood samples before and after exercise to evaluate the effect of exercise on serum cortisol levels.
☐ **4.** Administer an injection of adrenocorticotropic hormone (ACTH) 30 minutes before drawing blood to measure serum cortisol levels.

89. The nurse should monitor the client with Cushing's disease for which of the following?

☐ **1.** Postprandial hypoglycemia.
☐ **2.** Hypokalemia.
☐ **3.** Hyponatremia.
☐ **4.** Decreased urine calcium level.

90. A client with Cushing's disease tells the nurse that the physician said the morning serum cortisol level was within normal limits. The client asks, “How can that be? I'm not imagining all these symptoms!” The nurse's response will be based on which of the following concepts?

☐ **1.** Some clients are very sensitive to the effects of cortisol and develop symptoms even with normal levels.
☐ **2.** A single random blood test cannot provide reliable information about endocrine levels.
☐ **3.** The excessive cortisol levels seen in Cushing's disease commonly result from loss of the normal diurnal secretion pattern.

☐ **4.** Tumors tend to secrete hormones irregularly, and the hormones are generally not present in the blood.

91. The client with Cushing's disease needs to modify dietary intake to control symptoms. In addition to increasing protein, which strategy would be **most** appropriate?

☐ **1.** Increase calories.
☐ **2.** Restrict sodium.
☐ **3.** Restrict potassium.
☐ **4.** Reduce fat to 10%.

92. Bone resorption is a possible complication of Cushing's disease. Which of the following interventions should the nurse recommend to help the client prevent this complication?

☐ **1.** Increase the amount of potassium in the diet.
☐ **2.** Maintain a regular program of weight-bearing exercise.
☐ **3.** Limit dietary vitamin D intake.
☐ **4.** Perform isometric exercises.

93. A client has an adrenal tumor and is scheduled for a bilateral adrenalectomy. During preoperative teaching, the nurse teaches the client how to do deep breathing exercises after surgery by telling the client to:

☐ **1.** “Sit in an upright position and take a deep breath.”
☐ **2.** “Hold your abdomen firmly with a pillow and take several deep breaths.”
☐ **3.** “Tighten your stomach muscles as you inhale and breathe normally.”
☐ **4.** “Raise your shoulders to expand your chest.”

94. A priority in the first 24 hours after a bilateral adrenalectomy is:

☐ **1.** Beginning oral nutrition.
☐ **2.** Promoting self-care activities.
☐ **3.** Preventing adrenal crisis.
☐ **4.** Ambulating in the hallway.

95. A client undergoing a bilateral adrenalectomy has postoperative prescriptions for hydromorphone hydrochloride (Dilaudid) 2 mg to be given subcutaneously every 4 hours PRN for pain. This drug is administered in relatively small doses **primarily** because it is:

☐ **1.** Less likely to cause dependency in small doses.
☐ **2.** Less irritating to subcutaneous tissues in small doses.
☐ **3.** As potent as most other analgesics in larger doses.
☐ **4.** Excreted before accumulating in toxic amounts in the body.

96. The nurse is caring for a client who is scheduled for an adrenalectomy.

Which of the following drugs may be included in the preoperative prescriptions to prevent Addison's crisis following surgery?

☐ **1.** Prednisone orally.
☐ **2.** Fludrocortisones subcutaneously.
☐ **3.** Spironolactone intramuscularly.
☐ **4.** Methylprednisolone sodium succinate intravenously.

97. Adrenal function is affected by the drug ketoconazole (Nizoral), an antifungal agent used to treat severe fungal infections. How is this effect manifested?

☐ **1.** Ketoconazole suppresses adrenal steroid secretion.
☐ **2.** Ketoconazole destroys adrenocortical cells, resulting in a “medical” adrenalectomy.
☐ **3.** Ketoconazole increases adrenocorticotropic hormone (ACTH)–induced corticosteroid serum levels.
☐ **4.** Ketoconazole decreases duration of adrenal suppression when administered with corticosteroids.

98. In the early postoperative period after a bilateral adrenalectomy, the client has an increased temperature. The nurse should assess the client further for signs of:

☐ **1.** Dehydration.
☐ **2.** Poor lung expansion.
☐ **3.** Wound infection.
☐ **4.** Urinary tract infection.

99. A client who is recovering from a bilateral adrenalectomy has a patient-controlled analgesia (PCA) system with morphine sulfate. Which of the following actions is a priority nursing intervention for the client?

☐ **1.** Observing the client at regular intervals for opioid addiction.
☐ **2.** Encouraging the client to reduce analgesic use and tolerate the pain.
☐ **3.** Evaluating pain control at least every 2 hours.
☐ **4.** Increasing the amount of morphine if the client does not administer the medication.

100. After surgery for bilateral adrenalectomy, the client is kept on bed rest for several days to stabilize the body's need for steroids postoperatively. Which of the following exercises will be most effective for preparing a client for ambulation after a period of bed rest?

☐ **1.** Alternately flexing and extending the knees.
☐ **2.** Alternately abducting and adducting the legs.
☐ **3.** Alternately stretching the Achilles tendons.

☐ **4.** Alternately flexing and relaxing the quadriceps femoris muscles.

101. As the nurse assists the postoperative client out of bed, the client reports having gas pains in the abdomen. Which of the following is the **most** effective nursing intervention to relieve this discomfort?

☐ **1.** Encourage the client to ambulate.
☐ **2.** Insert a rectal tube.
☐ **3.** Insert a nasogastric (NG) tube.
☐ **4.** Encourage the client to drink carbonated liquids.

102. Because of steroid excess after a bilateral adrenalectomy, the nurse should assess the client for:

☐ **1.** Postoperative confusion.
☐ **2.** Delayed wound healing.
☐ **3.** Emboli.
☐ **4.** Malnutrition.

103. The client who has undergone a bilateral adrenalectomy is concerned about persistent body changes and unpredictable moods. The nurse should tell the client that:

☐ **1.** The body changes are permanent and the client will not be the same as before this condition.
☐ **2.** The body and mood will gradually return to normal.
☐ **3.** The physical changes are permanent, but the mood swings will disappear.
☐ **4.** The physical changes are temporary, but the mood swings are permanent.

104. After a bilateral adrenalectomy for Cushing's disease, the client will receive periodic testosterone injections. The expected outcome of these injections is:

☐ **1.** Balanced reproductive cycle.
☐ **2.** Restored sodium and potassium balance.
☐ **3.** Stimulated protein metabolism.
☐ **4.** Stabilized mood swings.

105. Which of the following should the nurse include in the teaching plan of a female client with bilateral adrenalectomy?

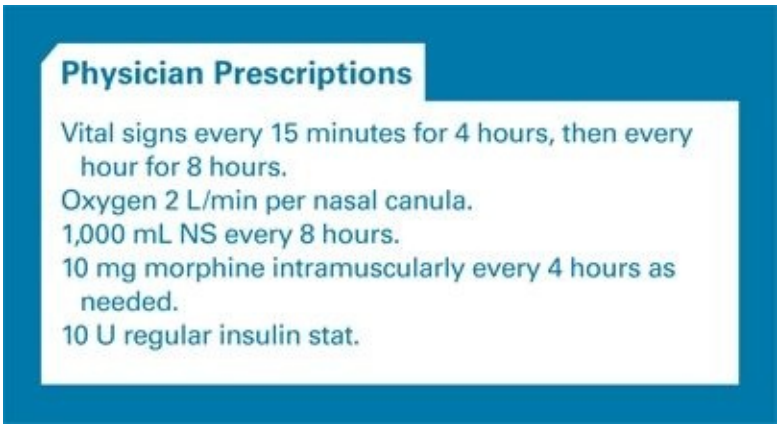
☐ **1.** Emphasizing that the client will need steroid replacement for the rest of her life.
☐ **2.** Instructing the client about the importance of tapering steroid medication carefully to prevent crisis.
☐ **3.** Informing the client that steroids will be required only until her body can manufacture sufficient quantities.
☐ **4.** Emphasizing that the client will need to take steroids whenever her life

involves physical or emotional stress.

Managing Care Quality and Safety

106. The nurse is reviewing the postoperative prescriptions (see chart) just written by a physician for a client with type 1 diabetes who has returned to the surgery floor from the recovery room following surgery for a left hip replacement. The client has pain of 5 on a scale of 1 to 10. The hand-off report from the nurse in the recovery room indicated that the vital signs have been stable for the last 30 minutes. After obtaining the client's glucose level, the nurse should do which of the following **first**?

☐ **1.** Administer the morphine.
☐ **2.** Contact the physician to rewrite the insulin prescription.
☐ **3.** Administer oxygen per nasal canula at 2 L/min.
☐ **4.** Take the vital signs.



107. A client with type 1 diabetes is admitted to the emergency department with dehydration following the flu. The client has a blood glucose level of 325 mg/dL (18 mmol/L) and a serum potassium level of 3.5 mEq (3.5 mmol/L). The physician has prescribed 1,000 mL 5% dextrose in water to be infused every 8 hours. Prior to implementing the physician prescriptions, the nurse should contact the physician, explain the situation, provide background information, report the current assessment of the client, and:

☐ **1.** Suggest adding potassium to the fluids.
☐ **2.** Request an increase in the volume of intravenous fluids.
☐ **3.** Verify the prescription for 5% dextrose in water.
☐ **4.** Determine if the client should be placed in isolation.

108. Glulisine (Apidra) insulin is prescribed to be administered to a client before each meal. To assist the day-shift nurse who is receiving the report, the

night-shift nurse gives the morning dose of glulisine. When the day-shift nurse goes to the room of the client who requires glulisine, the nurse finds that the client is not in the room. The client's roommate tells the nurse that the client “went for a test.” What should the nurse do next?

☐ **1.** Bring a small glass of juice, and locate the client.
☐ **2.** Call the client's physician.
☐ **3.** Check the computerized care plan to determine what test was scheduled.
☐ **4.** Send the nurse's assistant to the x-ray department to bring the client back to his room.

109. A young adult client who has been diagnosed with type 1 diabetes has an insulin drip to aid in lowering the serum blood glucose level of 600 mg/dL (33.3 mmol/L). The client is also receiving ciprofloxacin IV. The physician prescribes discontinuation of the insulin drip. The nurse should next?

☐ **1.** Discontinue the insulin drip, as prescribed.
☐ **2.** Hang the next IV dose of antibiotic before discontinuing the insulin drip.
☐ **3.** Inform the physician that the client has not received any subcutaneous insulin yet.
☐ **4.** Add glargine to the insulin drip before discontinuing it.

110. An elderly client on steroids has secondary diabetes and chronic kidney disease (CKD) and takes insulin. The client has had episodes of hypoglycemia. The nurse should:

☐ **1.** Continue to monitor the client's blood glucose values.
☐ **2.** Contact the dietitian to request that one additional serving of protein be added to each meal.
☐ **3.** Restrict ambulation so there will be less of a chance for hypoglycemia.
☐ **4.** Contact the physician and recommend that the doses of insulin be evaluated.

111. The elderly client with type 2 diabetes has hyperglycemic hyperosmolar syndrome (HHS). The nurse should monitor the infusion for too rapid correction of the blood glucose in order to prevent:

☐ **1.** Ketone body formation.
☐ **2.** A major vascular accident.
☐ **3.** Fluid volume depletion.
☐ **4.** Cerebral edema.

112. A client with type I diabetes has gastroparesis. The nurse must monitor the client for which of the following?

☐ **1.** Polyphagia.
☐ **2.** Anorexia.

☐ **3.** Paresthesias.
☐ **4.** Dysphagia.

Answers, Rationales, and Test-Taking Strategies

The answers and rationales for each question follow below, along with keys (🔑) to the client need (CN) and cognitive level (CL) for each question. As you check your answers, use the ***Content Mastery and Test-Taking Skill Self-Analysis*** *worksheet (tear-out worksheet in back of book) to identify the reason(s) for not answering the questions correctly. For additional information about test-taking skills and strategies for answering questions, refer to pages 10–21 and pages 31–32 in Part 1 of this book.*

The Client with Disorders of the Thyroid

1. 2. Graves' disease, the most common type of thyrotoxicosis, is a state of hypermetabolism. The increased metabolic rate generates heat and produces tachycardia and fine muscle tremors. Anorexia is associated with hypothyroidism. Loss of weight, despite a good appetite and adequate caloric intake, is a common feature of hyperthyroidism. Cold skin is associated with hypothyroidism.

🔑 CN: Physiological adaptation; CL: Analyze

2. 3. A change in the menstrual interval, diminished menstrual flow (oligomenorrhea), or even the absence of menstruation (amenorrhea) may result from the hormonal imbalances of thyrotoxicosis. Oligomenorrhea in women and decreased libido and impotence in men are common features of thyrotoxicosis. Dysmenorrhea is painful menstruation. Metrorrhagia, blood loss between menstrual periods, is a symptom of hypothyroidism. Menorrhagia, excessive bleeding during menstrual periods, is a symptom of hypothyroidism.

🔑 CN: Physiological adaptation; CL: Analyze

3. 2, 3, 5, 6. Clients with hypothyroidism exhibit symptoms indicating a lack of thyroid hormone. Bradycardia, decreased energy and lethargy, memory problems, weight gain, coarse hair, constipation, and menorrhagia are common signs and symptoms of hypothyroidism.

🔑 CN: Physiological adaptation; CL: Analyze

4. 1. The most serious adverse effects of PTU are leukopenia and agranulocytosis, which usually occur within the first 3 months of treatment. The

client should be taught to promptly report to the health care provider signs and symptoms of infection, such as a sore throat and fever. Clients having a sore throat and fever should have an immediate white blood cell count and differential performed, and the drug must be withheld until the results are obtained. Painful menstruation, constipation, and increased urine output are not associated with PTU therapy.

CN: Pharmacological and parenteral therapies; CL: Synthesize

5. 2. A typical sign of thyrotoxicosis is irritability caused by the high levels of circulating thyroid hormones in the body. This symptom decreases as the client responds to therapy. Thyrotoxicosis does not cause confusion. The client may be worried about her illness, and stress may influence her mood; however, irritability is a common symptom of thyrotoxicosis and the client should be informed of that fact rather than blamed.

CN: Psychosocial integrity; CL: Synthesize

6. 2. PTU is a prototype of thioamide antithyroid drugs. It inhibits production of thyroid hormones and peripheral conversion of T4 to the more active T3. A client taking this antithyroid drug should be able to sleep and rest well at night since the level of thyroid hormones is reduced in the blood. Excess energy throughout the day, loss of weight and perspiring through the day are symptoms of hyperthyroidism indicating the drug has not produced its outcome.

CN: Pharmacological and parenteral therapies; CL: Evaluate.

7. 3. Treatment of mild ophthalmopathy that may accompany thyrotoxicosis includes measures such as wearing sunglasses to protect the eyes from corneal irritation. Treatment of ophthalmopathy should be performed in consultation with an ophthalmologist. Massaging the eyes will not help to protect the cornea. An ophthalmic anesthetic is used to examine and possibly treat a painful eye, not protect the cornea. Covering the eyes with moist gauze pads is not a satisfactory nursing measure to protect the eyes of a client with exophthalmos because treatment is not focused on moisture to the eye but rather on protecting the cornea and optic nerve. In exophthalmos, the retrobulbar connective tissues and extraocular muscle volume are expanded because of fluid retention. The pressure is also increased.

CN: Reduction of risk potential; CL: Synthesize

8. 4. Sodium iodide ^{131}I destroys the thyroid follicular cells, and thyroid hormones are no longer produced. RAI is commonly recommended for clients with Graves' disease, especially the elderly. The treatment results in a “medical

thyroidectomy.” RAI is given in lieu of surgery, not before surgery. RAI does not reduce uptake of thyroxine. The outcome of giving RAI is the destruction of the thyroid follicular cells. It is possible to slow the production of thyroid hormones with RAI.

CN: Pharmacological and parenteral therapies; CL: Synthesize

9. 3. The client needs to be educated about the need for lifelong thyroid hormone replacement. Permanent hypothyroidism is the major complication of RAI ^{131}I treatment. Lifelong medical follow-up and thyroid replacement are warranted. The client needs to monitor for signs and symptoms of hypothyroidism, not hyperthyroidism. Resting for 1 week is not necessary. Hypertension and tachycardia are signs of hyperthyroidism, not hypothyroidism.

CN: Pharmacological and parenteral therapies; CL: Synthesize

10. 2. SSKI is frequently administered before a thyroidectomy because it helps decrease the vascularity of the thyroid gland. A highly vascular thyroid gland is very friable, a condition that presents a hazard during surgery. Preparation of the client for surgery includes depleting the gland of thyroid hormone and decreasing vascularity. SSKI does not decrease the progression of exophthalmos, and it does not decrease the body's ability to store thyroxine or increase the body's ability to excrete thyroxine.

CN: Pharmacological and parenteral therapies; CL: Apply

11. 3. SSKI should be diluted well in milk, water, juice, or a carbonated beverage before administration to help disguise the strong, bitter taste. Also, this drug is irritating to mucosa if taken undiluted. The client should sip the diluted preparation through a drinking straw to help prevent staining of the teeth. Pouring the solution over ice chips will not sufficiently dilute the SSKI or cover the taste. Antacids are not used to dilute or cover the taste of SSKI. Mixing in a puree would put the SSKI in contact with the teeth.

CN: Pharmacological and parenteral therapies; CL: Apply

12. 3. Laryngeal nerve damage is a potential complication of thyroid surgery because of the proximity of the thyroid gland to the recurrent laryngeal nerve. Asking the client to speak helps assess for signs of laryngeal nerve damage. Persistent or worsening hoarseness and weak voice are signs of laryngeal nerve damage and should be reported to the physician immediately. Internal hemorrhage is detected by changes in vital signs. The client's level of consciousness can be partially assessed by asking her to speak, but that is not the primary reason for doing so in this situation. Upper airway obstruction is

detected by color and respiratory rate and pattern.

CN: Reduction of risk potential; CL: Analyze

13. 4. Equipment for an emergency tracheotomy should be kept in the room, in case tracheal edema and airway occlusion occur. Laryngeal nerve damage can result in vocal cord spasm and respiratory obstruction. A tracheostomy set, oxygen and suction equipment, and a suture removal set (for respiratory distress from hemorrhage) make up the emergency equipment that should be readily available. Total parenteral nutrition is not anticipated for the client undergoing thyroidectomy. Intravenous infusion via a cutdown is not an expected possible treatment after thyroidectomy. Tube feedings are not anticipated emergency care.

CN: Reduction of risk potential; CL: Synthesize

14. 2. Tetany may occur after thyroidectomy if the parathyroid glands are accidentally injured or removed during surgery. This would cause a disturbance in serum calcium levels. An early sign of tetany is numbness and tingling of the fingers or toes and in the circumoral region. Tetany may occur from 1 to 7 days postoperatively. Late signs and symptoms of tetany include seizures, contraction of the glottis, and respiratory obstruction. The nurse should notify the physician. Exercising the joints in the fingers and toes will not relieve the tetany. The client is not exhibiting signs of thrombophlebitis. There is no indication of nerve damage that would cause the client not to be able to speak.

CN: Physiological adaptation; CL: Synthesize

15. 2. The client with tetany is suffering from hypocalcemia, which is treated by administering an IV preparation of calcium, such as calcium gluconate or calcium chloride. Oral calcium is then necessary until normal parathyroid function returns. Sodium phosphate is a laxative. Echothiophate iodide is an eye preparation used as a miotic for an antiglaucoma effect. Sodium bicarbonate is a potent systemic antacid.

CN: Pharmacological and parenteral therapies; CL: Apply

16. 2. Typical signs and symptoms of hypothyroidism include weight gain, fatigue, decreased energy, apathy, brittle nails, dry skin, cold intolerance, hair loss, constipation, and numbness and tingling in the fingers. Tachycardia is a sign of hyperthyroidism, not hypothyroidism. Diarrhea and nausea are not symptoms of hypothyroidism.

CN: Physiological adaptation; CL: Analyze

17. 4. A major problem for the person with hypothyroidism is fatigue. Other signs and symptoms include lethargy, personality changes, generalized edema,

impaired memory, slowed speech, cold intolerance, dry skin, muscle weakness, constipation, weight gain, and hair loss. Incomplete closure of the eyelids, hypermetabolism, and diarrhea are associated with hyperthyroidism.

CN: Basic care and comfort; CL: Analyze

18. 4. Hypothyroidism may contribute to sadness and depression. It is good practice for clients with newly diagnosed depression to be monitored for hypothyroidism by checking serum thyroid hormone and thyroid-stimulating hormone levels. This client needs to know that these feelings may be related to her low thyroid hormone levels and may improve with treatment. Replacement therapy does not cause depression. Depression may accompany chronic illness, but it is not “normal.”

CN: Psychosocial integrity; CL: Analyze

19. 2. Synthroid (levothyroxine) must be given at the same time each day on an empty stomach, preferably 1/2 to 1 hour before breakfast. Other medications may impair the action of levothyroxine (Synthroid) absorption; the client should separate doses of other medications by 4 to 5 hours.

CN: Pharmacological and parenteral therapies; CL: Evaluate

The Client with Diabetes Mellitus

20. 3. Empowerment is an approach to clinical practice that emphasizes helping people discover and use their innate abilities to gain mastery over their own condition. Empowerment means that individuals with a health problem have the tools, such as knowledge, control, resources, and experience, to implement and evaluate their self-management practices. Involvement of others, such as asking the client about family involvement, implies that the others will provide the direct care needed rather than the client. Asking the client what the client needs to know implies that the nurse will be the one to provide the information. Telling the client what is required does not provide the client with options or lead to empowerment.

CN: Health promotion and maintenance; CL: Synthesize

21. 3. Lipodystrophy, specifically lipohypertrophy, involves swelling of the fat at the site of repeated injections, which can interfere with the absorption of insulin, resulting in erratic blood glucose levels. Because the client has been receiving insulin for many years, this is the most likely cause of poor control. Eating snacks between meals causes hyperglycemia. Adjusting insulin according to blood glucose levels would not cause **hypoglycemia** but normal levels. Initiating an insulin pump would not, of itself, cause the periods of

hyperglycemia.

CN**:** Physiological Integrity; CL: Analyze

22. 1, 2, 4, 5. The risk factors for developing type 2 diabetes include giving birth to an infant weighing more than 9 lb (4,082 g); obesity (BMI over 30); ethnicity of Asian, African, Native American, or First Nations; age greater than 45 years; hypertension; and family history in parents or siblings. Childhood obesity is also a risk factor for type 2 diabetes. Maintaining an ideal weight, eating a low-fat diet, and exercising regularly decrease the risk of type 2 diabetes.

CN: Reduction of risk potential; CL: Analyze

23. 4. The client's blood glucose level is elevated, beyond levels accepted for fasting; normal blood glucose range is 70 to 120 mg/dL (3.9 to 6.7 mmol/L). The specific gravity is within normal range (1.001 to 1.030). Urine output should be 30 to 50 mL/h; thus, 350 mL is a normal urinary output over 8 hours. The potassium level is normal.

CN: Reduction of risk potential; CL: Synthesize

24. 1. The elevated blood glucose level indicates hyperglycemia. The hemoglobin is normal. The client's cholesterol and LDL levels are both normal. The nurse should determine if there are standing orders for the hyperglycemia or notify the physician.

CN: Reduction of risk potential; CL: Analyze

25. 3. Due to the rapid, deep respirations, the client is losing fluid from vaporization from the lungs and skin (insensible fluid loss). Normally, about 900 mL of fluid is lost per day through vaporization. Decreased serum potassium level has no effect on insensible fluid loss. Hypotension occurs due to polyuria and inadequate fluid intake. It may decrease the flow of blood to the skin, causing the skin to be warm and dry.

CN: Reduction of risk potential; CL: Analyze

26. 4. Glargine is a long-acting recombinant human insulin analog. Glargine should not be mixed with any other insulin product. Insulins should not be shaken; instead, if the insulin is cloudy, roll the vial or insulin pen between the palms of the hands.

CN: Pharmacological and parenteral therapies; CL: Synthesize

27. 1. A modest alcohol intake (1 to 2 drinks/day) may be incorporated into the nutrition plan for individuals who choose to drink. Alcohol is detoxified in

the liver where glycogen reserves are stored and normally released in case of hypoglycemia. At the time alcohol is consumed, glucose values will likely rise because of the carbohydrate in the beer, wine or mixed drinks; however, the later and more dangerous effect of alcohol is a hypoglycemic **effect**. Alcohol should be consumed with food; even if blood glucose values are elevated, the bedtime snack should not be skipped.

 CN: Health promotional; CL: Synthesize

28. 1. A rare but serious adverse effect of metformin (Glucophage) is lactic acidosis; half the cases are fatal. Ideally, one should stop metformin for 2 days before and 2 days after drinking alcohol. Signs and symptoms of lactic acidosis are weakness, fatigue, unusual muscle pain, dyspnea, unusual stomach discomfort, dizziness or light-headedness, and bradycardia or cardiac arrhythmias. Bloating is not an adverse effect of metformin.

 CN: Pharmacological and parenteral therapies; CL: Evaluate

29. 3. Oral hypoglycemic agents of the sulfonylurea group, such as tolbutamide, lower the blood glucose level by stimulating functioning beta cells in the pancreas to release insulin. These agents also increase insulin's ability to bind to the body's cells. They may also act to increase the number of insulin receptors in the body. Tolbutamide does not potentiate the action of insulin. Tolbutamide does not lower the renal threshold of glucose, which would not be a factor in the treatment of diabetes in any case. Tolbutamide does not combine with glucose to render it inert.

 CN: Pharmacological and parenteral therapies; CL: Apply

30. 1, 5. Being overweight and having a large waist-hip ratio (central abdominal obesity) increase insulin resistance, making control of diabetes more difficult. The American and Canadian Diabetes Associations recommend a yearly referral to an ophthalmologist and podiatrist. Exercise and weight management decrease insulin resistance. Insulin is not always needed for type 2 diabetes; diet, exercise, and oral medications are the first-line treatment. The client must monitor all nutritional sources for a balanced diet—fats, carbohydrates, and protein.

 CN: Reduction of risk potential; CL: Create

31. 1. The client with diabetes is prone to serious foot injuries secondary to peripheral neuropathy and decreased circulation. The client should be taught to avoid going barefoot to prevent injury. Shoes that do not fit properly should not be worn because they will cause blisters that can become nonhealing, serious

wounds for the diabetic client. Toenails should be cut straight across. A heating pad should not be used because of the risk of burns due to insensitivity to temperature.

 CN: Reduction of risk potential; CL: Synthesize

32. 2. A client with diabetes should be advised to consult a physician or podiatrist for corn removal because of the danger of traumatizing the foot tissue and potential development of ulcers. The diabetic client should never self-treat foot problems but should consult a physician or podiatrist.

 CN: Reduction of risk potential; CL: Synthesize

33. 2. Proper and careful first-aid treatment is important when a client with diabetes has a skin cut or laceration. The skin should be kept supple and as free of organisms as possible. Washing and bandaging the cut will accomplish this. Washing wounds with alcohol is too caustic and drying to the skin. Having the children help is an unrealistic suggestion and does not educate the client about proper care of wounds. Tight control of blood glucose levels through adherence to the medication regimen is vitally important; however, it does not mean that careful attention to cuts can be ignored.

 CN: Reduction of risk potential; CL: Synthesize

34. 4. Diabetes mellitus is a multifactorial, systemic disease associated with problems in the metabolism of all food types. The client's diet should contain appropriate amounts of all three nutrients, plus adequate minerals and vitamins.

 CN: Basic care and comfort; CL: Apply

35. 1. Deep, rapid respirations with long expirations are indicative of Kussmaul's respirations, which occur in metabolic acidosis. The respirations increase in rate and depth, and the breath has a “fruity” or acetone-like odor. This breathing pattern is the body's attempt to blow off carbon dioxide and acetone, thus compensating for the acidosis. The other breathing patterns listed are not related to ketoacidosis and would not compensate for the acidosis.

 CN: Physiological adaptation; CL: Analyze

36. 3, 4, 5. The nurse may not discontinue a medication without a physician's prescription, and the nurse may not substitute one medication for another. Maximum doses may be better tolerated if given with meals. Before therapy begins, and at least annually thereafter, assess the client's renal function; if renal impairment is detected, a different antidiabetic agent may be indicated. To evaluate the effectiveness of therapy, the client's glucose value must be monitored regularly. The prescriber must be notified if the glucose value

increases, despite therapy.

CN: Pharmacological and parenteral therapies; CL: Synthesize

37. 1, 2, 3. Client teaching includes reviewing proper use and storage of the exenatide (Byetta) dosage pen, particularly the one-time set-up for each new pen. The nurse should instruct the client to inject the drug in the thigh, abdomen, or upper arm. The drug should be administered within 60 minutes of the morning and evening meals; the client should not inject the drug after a meal. The nurse should review steps for managing hypoglycemia, especially if the client also takes a sulfonylurea or insulin. If a dose is missed, the client should resume treatment as prescribed, with the next scheduled dose.

CN: Pharmacological and parenteral therapies; CL: Synthesize

38. 4. Rapid-acting insulin has an onset in 15 minutes, peaks at 1 hour, and lasts for 3 to 4 hours. Rapid-acting insulin is administered right before or right after a meal. The nurse should assess the client for hypoglycemia 1 hour following administration of the drug.

CN: Pharmacological and parenteral therapies; CL: Apply

39. 4. There is a drug-food interaction between repaglinide and grapefruit juice that may inhibit metabolism of repaglinide; the fresh grapefruit also interacts with repaglinide. It is not necessary that the dietitian inform the client of the drug-food interaction first. To contact the manager of the Food and Nutrition Department is not an intervention that will bring about prompt removal of the juice.

CN: Pharmacological and parenteral therapies; CL: Synthesize

40. 1, 2, 3, 4, 5. The client with unstable diabetes mellitus is at risk for many complications. Heart disease is the leading cause of mortality in clients with diabetes. The goal blood pressure for diabetics is less than 130/80 mm Hg. Therefore, the nurse would need to report any findings greater than 130/80 mm Hg. The goal of HbA_{1c} is less than 7% (0.07); thus, a level of 10.2% (0.1) must be reported. HDL less than 40 mg/dL (2.2 mmol/L) and triglycerides greater than 150 mg/dL (8.3 mmol/L) are risk factors for heart disease. The nurse would need to report the client's HDL and triglyceride levels. The urine ketones are negative, but this is a late sign of complications when there is a profound insulin deficiency.

CN: Reduction of risk potential; CL: Analyze

41. 4. A client with diabetes who takes any first- or second-generation sulfonylurea should be advised to avoid alcohol intake. Sulfonylureas in

combination with alcohol can cause serious disulfiram (Antabuse)–like reactions, including flushing, angina, palpitations, and vertigo. Serious reactions, such as seizures and possibly death, may also occur. Hypokalemia, hyperkalemia, and hypocalcemia do not result from taking sulfonylureas in combination with alcohol.

CN: Physiological adaptation; CL: Apply

42. 3. The most important factor predisposing to the development of type 2 diabetes mellitus is obesity. Insulin resistance increases with obesity. Cigarette smoking is not a predisposing factor, but it is a risk factor that increases complications of diabetes mellitus. A high-cholesterol diet does not necessarily predispose to diabetes mellitus, but it may contribute to obesity and hyperlipidemia. Hypertension is not a predisposing factor, but it is a risk factor for developing complications of diabetes mellitus.

CN: Health promotion and maintenance; CL: Apply

43. 2. The client with diabetes mellitus is especially prone to hypertension due to atherosclerotic changes, which leads to problems of the microvascular and macrovascular systems. This can result in complications in the heart, brain, and kidneys. Heart disease and stroke are twice as common among people with diabetes mellitus as among people without the disease. Painful, inflamed joints accompany rheumatoid arthritis. A stooped appearance accompanies osteoporosis with narrowing of the vertebral column. A low hemoglobin concentration accompanies anemia, especially iron deficiency anemia and anemia of chronic disease.

CN: Reduction of risk potential; CL: Analyze

44. 1. Although some individual variation exists, when the blood glucose level decreases to less than 70 mg/dL (3.9 mmol/L), the client experiences or is at risk for hypoglycemia. Hypoglycemia can occur in both type 1 and type 2 diabetes mellitus, although it is more common when the client is taking insulin. The nurse should instruct the client on the prevention, detection, and treatment of hypoglycemia.

CN: Physiological adaptation; CL: Analyze

45. 4. Diabetic retinopathy, cataracts, and glaucoma are common complications in diabetics, necessitating eye assessment and examination. The feet should also be examined at each client encounter, monitoring for thickening, fissures, or breaks in the skin; ulcers; and thickened nails. Although assessments of the abdomen, pharynx, and lymph glands are included in a thorough

examination, they are not pertinent to common diabetic complications.

 CN: Reduction of risk potential; CL: Analyze

46. 4. The client with diabetes mellitus who is taking NPH insulin (Humulin N) in the evening is most likely to become hypoglycemic shortly after midnight because this insulin peaks in 6 to 8 hours. The client should eat a bedtime snack to help prevent hypoglycemia while sleeping.

 CN: Pharmacological and parenteral therapies; CL: Apply

47. 3. If the client engages in an activity or exercise that focuses on one area of the body, that area may cause inconsistent absorption of insulin. A good regimen for a jogger is to inject the abdomen for 1 week and then rotate to the buttock. A jogger may have inconsistent absorption in the legs or arms with strenuous running. The iliac crest is not an appropriate site due to a lack of loose skin and subcutaneous tissue in that area.

 CN: Pharmacological and parenteral therapies; CL: Apply

48. 1. Insulin lispro (Humalog) begins to act within 10 to 15 minutes and lasts approximately 4 hours. A major advantage of Humalog is that the client can eat almost immediately after the insulin is administered. The client needs to be instructed regarding the onset, peak, and duration of all insulin, as meals need to be timed with these parameters. Waiting 1 hour to eat may precipitate hypoglycemia. Eating 2 hours before the insulin lispro could cause hyperglycemia if the client does not have circulating insulin to metabolize the carbohydrate.

 CN: Pharmacological and parenteral therapies; CL: Synthesize

49. 1. The nurse should judge that learning has occurred from the evidence of a change in the client's behavior. A client who performs a procedure safely and correctly demonstrates that he has acquired a skill. Evaluation of this skill acquisition requires performance of that skill by the client with observation by the nurse. The client must also demonstrate cognitive understanding, as shown by the ability to critique the nurse's performance. Explaining the steps demonstrates acquisition of knowledge at the cognitive level only. A posttest does not indicate the degree to which the client has learned a psychomotor skill.

 CN: Pharmacological and parenteral therapies; CL: Evaluate

50. 32 units

Clients commonly need to mix insulin, requiring careful mixing and calculation. The total dosage is 10 units plus 22 units, for a total of 32 units.

 CN: Pharmacological and parenteral therapies; CL: Apply

51. 3. Renal failure frequently results from the vascular changes associated with diabetes mellitus. ACE inhibitors increase renal blood flow and are effective in decreasing diabetic nephropathy. Chronic obstructive pulmonary disease is not a complication of diabetes, nor is it prevented by ACE inhibitors. Pancreatic cancer is neither prevented by ACE inhibitors nor considered a complication of diabetes. Cerebrovascular accident is not directly prevented by ACE inhibitors, although management of hypertension will decrease vascular disease.

 CN: Pharmacological and parenteral therapies; CL: Apply

52. 1. The four most commonly reported signs and symptoms of hypoglycemia are nervousness, weakness, perspiration, and confusion. Other signs and symptoms include hunger, incoherent speech, tachycardia, and blurred vision. Anorexia and Kussmaul's respirations are clinical manifestations of hyperglycemia or ketoacidosis. Bradycardia is not associated with hypoglycemia; tachycardia is.

 CN: Reduction of risk potential; CL: Apply

53. 2. Steroids can cause hyperglycemia because of their effects on carbohydrate metabolism, making diabetic control more difficult. Aspirin is not known to affect glucose metabolism. Sulfonylureas are oral hypoglycemic agents used in the treatment of diabetes mellitus. ACE inhibitors are not known to affect glucose metabolism.

 CN: Pharmacological and parenteral therapies; CL: Apply

54. 1. Colds and influenza present special challenges to the client with diabetes mellitus because the body's need for insulin increases during illness. Therefore, the client must take the prescribed insulin dose, increase the frequency of blood glucose testing, and maintain an adequate fluid intake to counteract the dehydrating effect of hyperglycemia. Clear fluids, juices, and Gatorade are encouraged. Not taking insulin when sick, or taking half the normal dose, may cause the client to develop ketoacidosis.

 CN: Reduction of risk potential; CL: Synthesize

55. 1. The priority goal for the client with diabetes mellitus who is experiencing vomiting with influenza is to obtain adequate nutrition. The diabetic client should eat small, frequent meals of 50 g of carbohydrate or food equal to 200 cal every 3 to 4 hours. If the client cannot eat the carbohydrates or take fluids, the health care provider should be called or the client should go to the emergency department. The diabetic client is in danger of complications with

dehydration, electrolyte imbalance, and ketoacidosis. Increasing the client's health management skills is important to lifestyle behaviors, but it is not a priority during this acute illness of influenza. Pain relief may be a need for this client, but it is not the priority at this time; neither is increasing activity during the illness.

 CN: Basic care and comfort; CL: Analyze

56. 4. The best response is to allow the client to verbalize her fears about giving herself a shot each day. Tactics that increase fear are not effective in changing behavior. If possible, the client needs to be responsible for her own care, including giving self-injections. It is unlikely that the client's insurance company will pay for home-care visits if the client is capable of self-administration.

 CN: Psychosocial integrity; CL: Synthesize

The Client with Pituitary Adenoma

57. 4. With transsphenoidal hypophysectomy, the sella turcica is entered from below, through the sphenoid sinus. There is no external incision; the incision is made between the upper lip and gums.

 CN: Reduction of risk potential; CL: Apply

58. 3. Deep breathing is the best choice for helping prevent atelectasis. The client should be placed in the semi-Fowler's position (or as prescribed) and taught deep breathing, sighing, mouth breathing, and how to avoid coughing. Blow bottles are not effective in preventing atelectasis because they do not promote sustained alveolar inflation to maximal lung capacity. Frequent position changes help loosen lung secretions, but deep breathing is most important in preventing atelectasis. Coughing is contraindicated because it increases intracranial pressure and can cause cerebrospinal fluid to leak from the point at which the sella turcica was entered.

 CN: Reduction of risk potential; CL: Synthesize

59. 1. A major focus of nursing care after transsphenoidal hypophysectomy is the prevention of and monitoring for a CSF leak. CSF leakage can occur if the patch or incision is disrupted. The nurse should monitor for signs of infection, including elevated temperature, increased white blood cell count, rhinorrhea, nuchal rigidity, and persistent headache. Hypoglycemia and adrenocortical insufficiency may occur. Monitoring for fluctuating blood glucose levels is not related specifically to transsphenoidal hypophysectomy. The client will be given IV fluids postoperatively to supply carbohydrates. Cushing's disease results from

adrenocortical excess, not insufficiency. Monitoring for cardiac arrhythmias is important, but arrhythmias are not anticipated following a transsphenoidal hypophysectomy.

CN: Reduction of risk potential; CL: Analyze

60. 1. The client's sexual problems are directly related to the excessive prolactin level. Removing the source of excessive hormone secretion should allow the client to return gradually to a normal physiologic pattern. Fertility will return, and erectile function and sexual desire will return to baseline as hormone levels return to normal.

CN: Physiological adaptation; CL: Apply

61. 3. The dural opening is typically repaired with a patch of muscle or fascia taken from the abdomen or thigh. The client should be prepared preoperatively for the presence of this additional incision in the abdomen or thigh. The client will need the patch of muscle or fascia to replace the dura. Disposable sutures alone will not provide an intact suture line. Nasal packing will not provide closure for the dural opening. A synthetic mesh is not the tissue of choice for surgical repair of the dura.

CN: Reduction of risk potential; CL: Apply

62. 3. If CSF leakage is suspected or confirmed, the client is treated initially with bed rest with the head of the bed elevated to decrease pressure on the graft site. Most leaks heal spontaneously, but occasionally surgical repair of the site in the sella turcica is needed. Repacking the nose will not heal the leak at the graft site in the dura. The client will not be returned to surgery immediately because most leaks heal spontaneously. High-dose corticosteroid therapy is not effective in healing a CSF leak.

CN: Physiological adaptation; CL: Apply

63. 1. After transsphenoidal surgery, the client must be careful not to disturb the suture line while healing occurs. Frequent oral care should be provided with rinses of saline, and the teeth may be gently cleaned with Toothettes. Frequent or vigorous toothbrushing or flossing is contraindicated because it may disturb or cause tension on the suture line.

CN: Physiological adaptation; CL: Synthesize

64. 4. Most clients who undergo adenoma removal experience a gradual return of normal pituitary secretion and do not experience complications. However, hypopituitarism can cause growth hormone, gonadotropin, thyroid-stimulating hormone, and adrenocorticotropic hormone deficits. The client

should be taught to monitor for change in mental status, energy level, muscle strength, and cognitive function. In adults, changes in sexual function, impotence, or decreased libido should be reported. Acromegaly and Cushing's disease are conditions of hypersecretion. Diabetes mellitus is related to the function of the pancreas and is not directly related to the function of the pituitary.

 CN: Reduction of risk potential; CL: Analyze

65. 1. Pituitary diabetes insipidus is a potential complication after pituitary surgery because of possible interference with the production of antidiuretic hormone (ADH). One major manifestation of diabetes insipidus is polyuria because lack of ADH results in insufficient water reabsorption by the kidneys. The polyuria leads to a decreased urine specific gravity (between 1.001 and 1.010). The client may drink and excrete 5 to 40 L of fluid daily. Diabetes insipidus does not affect metabolism. A blood glucose level higher than 300 mg/dL (16.7 mmol/L) is associated with impaired glucose metabolism or diabetes mellitus. Urine negative for sugar and ketones is normal.

 CN: Reduction of risk potential; CL: Analyze

66. 2. The major characteristic of diabetes insipidus is decreased tubular reabsorption of water due to insufficient amounts of antidiuretic hormone (ADH). Vasopressin is administered to the client with diabetes insipidus because it has pressor and ADH activities. Vasopressin works to increase the concentration of the urine by increasing tubular reabsorption, thus preserving up to 90% water. Vasopressin is administered to the client with diabetes insipidus because it is a synthetic ADH. The administration of vasopressin results in increased tubular reabsorption of water, and it is effective for emergency treatment or daily maintenance of mild diabetes insipidus. Vasopressin does not decrease blood pressure or affect insulin production or glucose metabolism, nor is insulin production a factor in diabetes insipidus.

 CN: Pharmacological and parenteral therapies; CL: Apply

67. 1. Because diabetes insipidus involves excretion of large amounts of fluid, maintaining normal fluid and electrolyte balance is a priority for this client. Special dietary programs or restrictions are not indicated in treatment of diabetes insipidus. Serum glucose levels are priorities in diabetes mellitus but not in diabetes insipidus.

 CN: Physiological adaptation; CL: Evaluate

The Client with Addison's Disease

68. 4. Adrenal crisis can occur with physical stress, such as surgery, dental

work, infection, flu, trauma, and pregnancy. In these situations, glucocorticoid and mineralocorticoid dosages are increased. Weight loss, not gain, occurs with adrenal insufficiency. Psychological stress has less effect on corticosteroid need than physical stress.

 CN: Reduction of risk potential; CL: Synthesize

69. 2. Addison's disease is caused by a deficiency of adrenal corticosteroids and can result in severe hypotension and shock because of uncontrolled loss of sodium in the urine and impaired mineralocorticoid function. This results in loss of extracellular fluid and dangerously low blood volume. Glucocorticoids must be administered to reverse hypotension. Preventing infection is not an appropriate goal of care in this life-threatening situation. Relieving anxiety is appropriate when the client's condition is stabilized, but the calm, competent demeanor of the emergency department staff will be initially reassuring.

 CN: Physiological adaptation; CL: Synthesize

70. 2. Adrenal hormone deficiency can cause profound physiologic changes. The client may experience severe pain (headache, abdominal pain, back pain, or pain in the extremities). Inhibited gluconeogenesis commonly produces hypoglycemia, and impaired sodium retention causes decreased, not increased, fluid volume. Edema would not be expected. Gastrointestinal disturbances, including nausea and vomiting, are expected findings in Addison's disease, not hunger.

 CN: Physiological adaptation; CL: Analyze

71. 1. Signs of infiltration include slowing of the infusion and swelling, pain, hardness, pallor, and coolness of the skin at the site. If these signs occur, the IV line should be discontinued and restarted at another infusion site. The new anatomic site, time, and type of cannula used should be documented. The nurse may apply a warm soak to the site, but only after the IV line is discontinued. Parenteral administration of fluids should not be stopped intermittently. Stopping the flow does not treat the problem, nor does it address the client's needs for fluid replacement. Infiltrated IV sites should not be irrigated; doing so will only cause more swelling and pain.

 CN: Pharmacological and parenteral therapies; CL: Synthesize

72. 1. Each liter of 5% dextrose in normal saline solution contains 170 cal. The nurse should consult with the physician and dietitian when a client is on IV therapy or is on nothing-by-mouth status for an extended period because further electrolyte supplementation or alimentation therapy may be needed.

CN: Pharmacological and parenteral therapies; CL: Apply

73. 3. Electrolyte imbalances associated with Addison's disease include hypoglycemia, hyponatremia, and hyperkalemia. Salted bouillon and fruit juices provide glucose and sodium to replenish these deficits. Diet soda does not contain sugar. Water could cause further sodium dilution. Coffee's diuretic effect would aggravate the fluid deficit. Milk contains potassium and sodium.

CN: Basic care and comfort; CL: Apply

74. 2. Finding alternative methods of dealing with stress, such as relaxation techniques, is a cornerstone of stress management. Removing all sources of stress from one's life is not possible. Antianxiety drugs are prescribed for temporary management during periods of major stress, and they are not an intervention in stress management classes. Avoiding discussion of stressful situations will not necessarily reduce stress.

CN: Psychosocial integrity; CL: Synthesize

75. 3. Primary Addison's disease refers to a problem in the gland itself that results from idiopathic atrophy of the glands. The process is believed to be autoimmune in nature. The most common causes of primary adrenocortical insufficiency are autoimmune destruction (70%) and tuberculosis (20%). Insufficient secretion of GH causes dwarfism or growth delay. Hyposecretion of glucocorticoids, aldosterone, and androgens occur with Addison's disease. Pituitary dysfunction can cause Addison's disease, but this is not a primary disease process. Oversecretion of the adrenal medulla causes pheochromocytoma.

CN: Physiological adaptation; CL: Apply

76. 2, 3, 4, 5, 6. Addison's disease occurs when the client does not produce enough steroids from the adrenal cortex. Lifetime steroid replacement is needed. The client should be taught lifestyle management techniques to avoid stress and maintain rest periods. A medical identification bracelet should be worn and the family should be taught signs and symptoms that indicate an impending adrenal crisis, such as fatigue, weakness, dizziness, or mood changes. Dental work, infections, and surgery commonly require an adjusted dosage of steroids.

CN: Physiological adaptation; CL: Create

77. 3. Although many of the disease signs and symptoms are vague and nonspecific, most clients experience lethargy and depression as early symptoms. Other early signs and symptoms include mood changes, emotional lability, irritability, weight loss, muscle weakness, fatigue, nausea, and vomiting. Most

clients experience a loss of appetite. Muscles become weak, not spastic, because of adrenocortical insufficiency.

CN: Physiological adaptation; CL: Analyze

78. 1. Since Addison's disease can be life threatening, treatment often begins with administration of corticosteroids. Corticosteroids, such as prednisone, may be taken orally or intravenously, depending on the client. A serious adverse effect of corticosteroids is hyperglycemia. Clients do not adjust their steroid dose based on dietary intake and exercise, insulin is adjusted based on diet and exercise. Addisonian crisis can occur secondary to hypoadrenocorticism resulting in a crisis situation of acute hypotension, not increased blood pressure. Addison's disease is a disease of inadequate adrenal hormone and therefore the client will have inadequate response to stress. If the client takes more medication than prescribed, there can be a potential increase in potassium depletion, fluid **retention**, and hyperglycemia. Taking less medication than was prescribed can trigger Addisonian crisis state which is a medical emergency manifested by signs of shock.

CN: Physiological adaptation; CL: Synthesize

79. 1. The need for glucocorticoids changes with circumstances. The basal dose is established when the client is discharged, but this dose covers only normal daily needs and does not provide for additional stressors. As the manager of the medication schedule, the client needs to know signs and symptoms of excessive and insufficient dosages. Glucocorticoid needs fluctuate. Glucocorticoids are not cumulative and must be taken daily. They must never be discontinued suddenly; in the absence of endogenous production, addisonian crisis could result. Two-thirds of the daily dose should be taken at about 8 AM and the remainder at about 4 PM. This schedule approximates the diurnal pattern of normal secretion, with highest levels between 4 and 6 AM and lowest levels in the evening.

CN: Pharmacological and parenteral therapies; CL: Evaluate

80. 3. Fludrocortisone acetate can be administered once a day, but cortisone acetate administration should follow the body's natural diurnal pattern of secretion. Greater amounts of cortisol are secreted during the day to meet the increased demand of the body. Typically, baseline administration of cortisone acetate is 25 mg in the morning and 12.5 mg in the afternoon. Taking it three times a day would result in an excessive dose. Taking the drug only in the morning would not meet the needs of the body later in the day and evening.

CN: Pharmacological and parenteral therapies; CL: Apply

81. 4. Oral steroids can cause gastric irritation and ulcers and should be administered with meals, if possible, or otherwise with an antacid. Only instructing the client to take the medication with a full glass of water will not help prevent gastric complications from steroids. Steroids should never be taken on an empty stomach. Glucocorticoids should be taken in the morning, not at bedtime.

CN: Pharmacological and parenteral therapies; CL: Apply

82. 4. Measuring daily weight is a reliable, objective way to monitor fluid balance. Rapid variations in weight reflect changes in fluid volume, which suggests insufficient control of the disease and the need for more glucocorticoids in the client with Addison's disease. Nurses should instruct clients taking oral steroids to weigh themselves daily and to report any unusual weight loss or gain. Skin turgor testing does supply information about fluid status, but daily weight monitoring is more reliable. Temperature is not a direct measurement of fluid balance. Thirst is a nonspecific and very late sign of weight loss.

CN: Pharmacological and parenteral therapies; CL: Evaluate

83. 3. Rapid weight gain, because it reflects excess fluids, is a warning sign that the client is receiving too much hormone replacement. It may be difficult to individualize the correct dosage for a client taking glucocorticoids, and the therapeutic range between underdosage and overdosage is narrow. Maintaining the client on the lowest dose that provides satisfactory clinical response is always the goal of pharmacotherapeutics. Fluid balance is an important indicator of the adequacy of hormone replacement. Anorexia is not present with glucocorticoid therapy because these drugs increase the appetite. Dizziness is not specific to the effects of glucocorticoid therapy. Poor skin turgor is a late sign of fluid volume deficit.

CN: Pharmacological and parenteral therapies; CL: Evaluate

84. 1. Medication compliance is an essential part of the self-care required to manage Addison's disease. The client must learn to adjust the glucocorticoid dose in response to the normal and unexpected stresses of daily living. The nurse should instruct the client never to stop taking the drug without consulting the health care provider to avoid an addisonian crisis. Regularity in daily habits makes adjustment easier, but the client should not be encouraged to withdraw from normal activities to avoid stress. The client does not need to restrict sodium. The client is at risk for hyponatremia. Hypotension, not hypertension, is more common with Addison's disease.

CN: Reduction of risk potential; CL: Evaluate

85. 3. Illness or surgery places tremendous stress on the body, necessitating increased glucocorticoid dosage. Extreme psychological stress also necessitates dosage adjustment. Increased dosages are needed in times of stress to prevent drug-induced adrenal insufficiency. Returning to work after the weekend, a vacation, or a routine checkup usually will not alter glucocorticoid dosage needs.

 CN: Reduction of risk potential; CL: Synthesize

86. 4. Bronzing, or general deepening of skin pigmentation, is a classic sign of Addison's disease and is caused by melanocyte-stimulating hormone produced in response to increased ACTH secretion. The hyperpigmentation is typically found in the distal portion of extremities and in areas exposed to the sun. Additionally, areas that may not be exposed to the sun, such as the nipples, genitalia, tongue, and knuckles, become bronze-colored. Treatment of Addison's disease usually reverses the hyperpigmentation. Bilirubin level is not related to the pathophysiology of Addison's disease. Hyperpigmentation is not related to the effects of the glucocorticoid therapy.

 CN: Physiological adaptation; CL: Apply

The Client with Cushing's Disease

87. 3. Skin bruising from increased skin and blood vessel fragility is a classic sign of Cushing's disease. Hyperpigmentation and bruising are caused by the hypersecretion of glucocorticoids. Fluid retention causes hypertension, not hypotension. Muscle wasting occurs in the extremities. Hair on the head thins, while body hair increases.

 CN: Physiological adaptation; CL: Analyze

88. 2. When Cushing's syndrome is suspected a 24-hour urine collection for free cortisol is performed. Levels of 50 to 100 mcg/day (1,379 to 2,756 nmol/L) in adults indicate Cushing's syndrome. If these results are borderline a high-dose dexamethasone suppression test is done. The Dexamethasone is given at 11 PM to suppress secretion of the corticotrophin-releasing hormone. A plasma cortisol sample is drawn at 8 AM. Normal cortisol level less than 5 mcg/dL (140 nmol/L) indicates normal adrenal response.

 CN: Management of care; CL: Apply

89. 2. Sodium retention is typically accompanied by potassium depletion. Hypertension, hypokalemia, edema, and heart failure may result from the hypersecretion of aldosterone. The client with Cushing's disease exhibits postprandial or persistent hyperglycemia. Clients with Cushing's disease have hypernatremia, not hyponatremia. Bone resorption of calcium increases the urine

calcium level.

CN: Reduction of risk potential; CL: Analyze

90. 3. Cushing's disease is commonly caused by loss of the diurnal cortisol secretion pattern. The client's random morning cortisol level may be within normal limits, but secretion continues at that level throughout the entire day. Cortisol levels should normally decrease after the morning peak. Analysis of a 24-hour urine specimen is often useful in identifying the cumulative excess. Clients will not have symptoms with normal cortisol levels. Hormones are present in the blood.

CN: Reduction of risk potential; CL: Apply

91. 2. A primary dietary intervention is to restrict sodium, thereby reducing fluid retention. Increased protein catabolism results in loss of muscle mass and necessitates supplemental protein intake. The client may be asked to restrict total calories to reduce weight. The client should be encouraged to eat potassium-rich foods because serum levels are typically depleted. Although reducing fat intake as part of an overall plan to restrict calories is appropriate, fat intake of less than 20% of total calories is not recommended.

CN: Basic care and comfort; CL: Synthesize

92. 2. Osteoporosis is a serious outcome of prolonged cortisol excess because calcium is resorbed out of the bone. Regular daily weight-bearing exercise (eg, brisk walking) is an effective way to drive calcium back into the bones. The client should also be instructed to have a dietary or supplemental intake of calcium of 1,500 mg daily. Potassium levels are not relevant to prevention of bone resorption. Vitamin D is needed to aid in the absorption of calcium. Isometric exercises condition muscle tone but do not build bones.

CN: Reduction of risk potential; CL: Synthesize

93. 2. Effective splinting for a high incision reduces stress on the incision line, decreases pain, and increases the client's ability to deep-breathe effectively. Deep breathing should be done hourly by the client after surgery. Sitting upright ignores the need to splint the incision to prevent pain. Tightening the stomach muscles is not an effective strategy for promoting deep breathing. Raising the shoulders is not a feature of deep-breathing exercises.

CN: Physiological adaptation; CL: Apply

94. 3. The priority in the first 24 hours after adrenalectomy is to identify and prevent adrenal crisis. Monitoring of vital signs is the most important evaluation measure. Hypotension, tachycardia, orthostatic hypotension, and arrhythmias

can be indicators of pending vascular collapse and hypovolemic shock that can occur with adrenal crisis. Beginning oral nutrition is important, but not necessarily in the first 24 hours after surgery, and it is not more important than preventing adrenal crisis. Promoting self-care activities is not as important as preventing adrenal crisis. Ambulating in the hallway is not a priority in the first 24 hours after adrenalectomy.

CN: Physiological adaptation; CL: Synthesize

95. 3. Hydromorphone hydrochloride (Dilaudid) is about five times more potent than morphine sulfate, from which it is prepared. Therefore, it is administered only in small doses. Hydromorphone hydrochloride can cause dependency in any dose; however, fear of dependency developing in the postoperative period is unwarranted. The dose is determined by the client's need for pain relief. Hydromorphone hydrochloride is not irritating to subcutaneous tissues. As with opioid analgesics, excretion depends on normal liver function.

CN: Pharmacological and parenteral therapies; CL: Apply

96. 4. A glucocorticoid preparation will be administered intravenously or intramuscularly in the immediate preoperative period to a client scheduled for an adrenalectomy. Methylprednisolone sodium succinate protects the client from developing acute adrenal insufficiency (Addison's crisis) that occurs as a result of the adrenalectomy. Spironolactone is a potassium-sparing diuretic. Prednisone is an oral corticosteroid. Fludrocortisones is a mineral corticoid.

CN: Physiological integrity; CL: Apply

97. 1. Ketoconazole (Nizoral) suppresses adrenal steroid secretion and may cause acute hypoadrenalism. The adverse effect should reverse when the drug is discontinued. Ketoconazole does not destroy adrenal cells; mitotane (Lysodren) destroys the cells and may be used to obtain a medical adrenalectomy. Ketoconazole decreases, not increases, ACTH-induced serum corticosteroid levels. It increases the duration of adrenal suppression when given with steroids.

CN: Pharmacological and parenteral therapies; CL: Apply

98. 2. Poor lung expansion from bed rest, pain, and retained anesthesia is a common cause of slight postoperative temperature elevation. Nursing care includes turning the client and having the client cough and deep-breathe every 1 to 2 hours, or more frequently as prescribed. The client will have postoperative IV fluid replacement prescribed to prevent dehydration. Wound infections typically appear 4 to 7 days after surgery. Urinary tract infections would not be typical with this surgery.

CN: Physiological adaptation; CL: Analyze

99. 3. Pain control should be evaluated at least every 2 hours for the client with a PCA system. Addiction is not a common problem for the postoperative client. A client should not be encouraged to tolerate pain; in fact, other nursing actions besides PCA should be implemented to enhance the action of opioids. One of the purposes of PCA is for the client to determine frequency of administering the medication; the nurse should not interfere unless the client is not obtaining pain relief. The nurse should ensure that the client is instructed on the use of the PCA control button and that the button is always within reach.

CN: Pharmacological and parenteral therapies; CL: Synthesize

100. 4. Alternately flexing and relaxing the quadriceps femoris muscles helps prepare the client for ambulation. This exercise helps maintain the strength in the quadriceps, which is the major muscle group used when walking. The other exercises listed do not increase a client's readiness for walking.

CN: Basic care and comfort; CL: Synthesize

101. 1. Decreased mobility is one of the most common causes of abdominal distention related to retained gas in the intestines. Peristalsis has been inhibited by general anesthesia, analgesics, and inactivity during the immediate postoperative period. Ambulation increases peristaltic activity and helps move gas. Walking can prevent the need for a rectal tube, which is a more invasive procedure. An NG tube is also a more invasive procedure and requires a physician's prescription. It is not a preferred treatment for gas postoperatively. Walking should prevent the need for further interventions. Carbonated liquids can increase gas formation.

CN: Reduction of risk potential; CL: Synthesize

102. 2. Persistent cortisol excess undermines the collagen matrix of the skin, impairing wound healing. It also carries an increased risk of infection and of bleeding. The wound should be observed and documentation performed regarding the status of healing. Confusion and emboli are not expected complications after adrenalectomy. Malnutrition also is not an expected complication after adrenalectomy. Nutritional status should be regained postoperatively.

CN: Reduction of risk potential; CL: Analyze

103. 2. As the body readjusts to normal cortisol levels, mood and physical changes will gradually return to a normal state. The body changes are not permanent, and the mood swings should level off.

CN: Physiological adaptation; CL: Synthesize

104. 3. Testosterone is an androgen hormone that is responsible for protein metabolism as well as maintenance of secondary sexual characteristics; therefore, it is needed by both males and females. Removal of both adrenal glands necessitates replacement of glucocorticoids and androgens. Testosterone does not balance the reproductive cycle, stabilize mood swings, or restore sodium and potassium balance.

CN: Physiological adaptation; CL: Apply

105. 1. Bilateral adrenalectomy requires lifelong adrenal hormone replacement therapy. If unilateral surgery is performed, most clients gradually reestablish a normal secretion pattern. The client and family will require extensive teaching and support to maintain self-care management at home. Information on dosing, adverse effects, what to do if a dose is missed, and follow-up examinations is needed in the teaching plan. Although steroids are tapered when given for an intermittent or one-time problem, they are not discontinued when given to clients who have undergone bilateral adrenalectomy because the clients will not regain the ability to manufacture steroids. Steroids must be taken on a daily basis, not just during periods of physical or emotional stress.

CN: Physiological adaptation; CL: Synthesize

Managing Care Quality and Safety

106. 2. Insulin is on the list of error-prone medications and the nurse should ask the physician to rewrite the prescription to spell out the word “units” and to indicate the route the drug is to be administered. The nurse should contact the physician immediately as the nurse is to administer the insulin now. The nurse can then also report the most current glucose level. While waiting for the insulin prescription to be rewritten, the nurse can administer the pain medication if needed, start the oxygen, and check the client's vital signs.

CN: Safety and infection control; CL: Synthesize

107. 3. The client needs fluid volume replacement due to the dehydration. However, the nurse should verify the prescription for IV dextrose with the physician due to the risk of hyperglycemia that dextrose would present when administered to a client with diabetes. The potassium level is within normal limits. The client does not have restrictions on oral fluids and the nurse can encourage the client to drink fluids. The client does not need to be placed in isolation at this time.

CN: Management of care; CL: Synthesize

108. 3. Glulisine (Apidra) is a rapid-acting insulin with an action onset of 15 minutes. The client could experience hypoglycemia with the insulin in the bloodstream and no breakfast. It is not necessary to call the client's physician; the nurse should determine what test was scheduled and then locate the client and provide either breakfast or 4 oz (120 mL) of fruit juice. To bring the client back to the room would be wasting valuable time needed to prevent or correct hypoglycemia.

CN: Management of care; CL: Synthesize

109. 3. Because subcutaneous administration of insulin has a slower rate of absorption than IV insulin, there must be an adequate level of insulin in the bloodstream before discontinuing the insulin drip; otherwise, the glucose level will rise. Adding an IV antibiotic has no influence on the insulin drip; it should not be piggy-backed into the insulin drip. Glargine cannot be administered IV, and should not be mixed with other insulins or solutions.

CN: Management of care; CL: Synthesize

110. 1. The nurse should continue to monitor glucose in the blood to prevent the client from continuing to experience hypoglycemia. One of the risk factors for hypoglycemia is decreased insulin clearance as with impaired kidney function and/or renal failure. Another risk factor for hypoglycemia is increased glucose utilization when there is too much activity or exercise without enough food. Protein is digested slower than carbohydrate, but with chronic kidney disease (CKD), it is more difficult for the kidneys to rid the body of metabolic waste products.

CN: Reduction of risk potential; CL: Synthesize

111. 4. HHS can be caused by acute illness, such as an infection like pneumonia or sepsis. In HHS, there is a residual amount of insulin that suppresses ketosis but cannot control hyperglycemia. This leads to severe dehydration, and impaired renal function. Ketone bodies are usually absent in HHS, and they do not form as a result of too rapid correction of blood glucose. The nurse should assess the client for a major vascular accident in the elderly as an etiology for a hyperglycemic crisis. Volume depletion must be treated first in HHS. Cerebral edema is a risk with too rapid correction of blood glucose.

CN: Reduction of risk potential; CL: Apply

112. 2. Neuropathy of the gastrointestinal (GI) tract may involve any portion of the system from the esophagus to the rectum. There may be anorexia or loss