

## Test 2

### Multiple Choice

Identify the choice that best completes the statement or answers the question.

- \_\_\_\_\_ 1. A patient is scheduled to have blood drawn for a serum aldosterone level. Which additional laboratory order should a nurse anticipate for this patient?
- 1) Creatinine
  - 2) Renin level
  - 3) Uric acid
  - 4) Urobilinogen
- \_\_\_\_\_ 2. A nurse is obtaining blood specimens from a patient's central line. What measure should the nurse use to ensure correct identification of the specimens collected?
- 1) Confirm patient name and room number and then write these on the specimen tubes and confirm with patient.
  - 2) Identify the patient using two unique identifiers before starting the sample collection, and then immediately affix the label with patient identification, time collected, and nurse's initials.
  - 3) Place printed label with identification on all tubes before obtaining the specimens, and ask the patient to observe that this is done.
  - 4) Request the presence of a laboratory technician to label the specimens as these are collected, and note date and time collected on the label.
- \_\_\_\_\_ 3. At an annual health screening, a patient's routine urinalysis is normal except for protein in the urine with "casts." The patient is in good health. Which factor in the patient's medical history should the nurse relate to this laboratory finding?
- 1) Drinks 6 to 8 glasses of water (12 ounces per glass) each day
  - 2) Eats a low-protein, high-carbohydrate diet
  - 3) Exercises daily and runs 4 to 5 miles per day
  - 4) Sleeps at least 8 hours per day
- \_\_\_\_\_ 4. An adolescent patient is brought to an urgent-care center with complaints of increasing weakness and persistent vomiting of 3 days' duration. Which findings in a blood gas analysis should a nurse expect as a result of the patient's history of persistent vomiting?
- 1) pH 7.32; PCO<sub>2</sub> 50 mm Hg; HCO<sub>3</sub> 20 mEq
  - 2) pH 7.40; PCO<sub>2</sub> 40 mm Hg; HCO<sub>3</sub> 23 mEq
  - 3) pH 7.47; PCO<sub>2</sub> 44 mm Hg; HCO<sub>3</sub> 30 mEq
  - 4) pH 7.60; PCO<sub>2</sub> 30 mm Hg; HCO<sub>3</sub> 24 mEq
- \_\_\_\_\_ 5. A patient is suspected of having a severe, generalized granulomatous central nervous system disease caused by a protozoan. Which test would be most appropriate for confirming this suspicion?
- 1) Thyroglobulin
  - 2) Thyroid-binding inhibitory immunoglobulin
  - 3) Thyroxine-binding globulin
  - 4) *Toxoplasma* antibody
- \_\_\_\_\_ 6. A patient is suspected of having intravascular hemolysis related to a transfusion reaction. Which test would be most appropriate to confirm this suspicion?
- 1) Ham's test for paroxysmal nocturnal hemoglobinuria (PNH)
  - 2) Haptoglobin

- 3) Hemoglobin electrophoresis
- 4) Hemosiderin

- \_\_\_\_\_ 7. A nurse is preparing to collect a routine urine specimen for urinalysis from a patient with an indwelling urinary catheter. To collect the specimen, the nurse should:
- 1) Clean the catheter sample port with alcohol, aspirate the required amount of urine, and transfer the urine to a specimen cup.
  - 2) Disconnect the collection tubing from the indwelling catheter and collect the specimen in a standard specimen cup using good aseptic technique.
  - 3) Disconnect the collection tubing from the indwelling catheter and, using an irrigation syringe, aspirate the urine specimen; label the syringe.
  - 4) Replace the urine collection bag with a clean bag; drain the urine into a specimen cup as soon as an adequate volume has accumulated.
- \_\_\_\_\_ 8. A 16-year-old female is brought to an emergency room by her mother with “sharp, stabbing pain” for the last 4 hours in her lower back. The patient is nauseous and states there is no possibility of pregnancy. Urinalysis is positive for casts, blood with 5–100 RBCs, and fewer than 100 WBCs. An IV pyelogram is ordered. Prior to this procedure, the nurse should confirm that:
- 1) A urinary catheter is inserted.
  - 2) Corticosteroid is administered.
  - 3) The pregnancy test is negative.
  - 4) The patient has signed a consent form.
- \_\_\_\_\_ 9. A patient with a history of kidney stones is scheduled for a renogram. Which medication should a nurse instruct the patient to stop at least 1 week prior to this procedure?
- 1) Clopidogrel bisulfate (Plavix)
  - 2) Digoxin (Lanoxin)
  - 3) Furosemide (Lasix)
  - 4) Nitrofurantoin (Macrochantin)
- \_\_\_\_\_ 10. When collecting a blood specimen for prostate-specific antigen (PSA), which information should the nurse provide to the laboratory to ensure accurate interpretation of the results?
- 1) Time that the specimen was collected
  - 2) Site from which specimen was obtained
  - 3) Age of the patient
  - 4) Medications the patient is taking
- \_\_\_\_\_ 11. A nurse is positioning a patient for hysterosalpingography. Which position should the patient be placed in?
- 1) Lithotomy
  - 2) Supine
  - 3) Upright
  - 4) Side-lying
- \_\_\_\_\_ 12. A patient is suspected of having congenital hypothyroidism. Which test would be most appropriate initially for confirming this suspicion?
- 1) Thyroxine, free
  - 2) Transferrin
  - 3) Triglycerides
  - 4) Thyroid-stimulating hormone (TSH)
- \_\_\_\_\_ 13. A nurse is preparing a patient for an arterial Doppler carotid study. Which description of the purpose of this test is correct?
- 1) Determining presence of intracranial atriovenous malformation

- 2) Diagnosing aortic aneurysm
- 3) Identifying the abnormalities in cardiac blood flow
- 4) Measuring the amplitude and waveform of the carotid pulse

- \_\_\_\_\_ 14. A patient who has limited exercise tolerance is scheduled for a thallium scan with dipyridamole. Which clinical parameter should a nurse identify as a possible contraindication for this procedure?
- 1) Blood pressure ranges from 136/90 mm Hg to 162/96 mm Hg
  - 2) History of asthma
  - 3) Myocardial infarction 1 month ago
  - 4) Serum potassium is 4.5 mEq/L and patient receives potassium supplement daily
- \_\_\_\_\_ 15. A nurse is assisting with a thoracentesis to obtain pleural fluid for analysis. Which additional diagnostic test should the nurse anticipate upon completion of the thoracentesis?
- 1) Chest x-ray
  - 2) Complete blood count (CBC)
  - 3) Blood cultures
  - 4) Electrocardiogram
- \_\_\_\_\_ 16. A patient with a history of inflammatory bowel disease is ready to return home from the radiology department following a gastrointestinal blood loss scan. Prior to discharge, a nurse should instruct the patient to:
- 1) Flush the toilet immediately after each void
  - 2) Limit activity for the next 24 hours
  - 3) Remain on a clear liquid diet until a follow-up with the health-care provider in 1 week
  - 4) Restrict fluid intake
- \_\_\_\_\_ 17. A nurse obtains a rectal swab for culture on a patient admitted from a long-term care setting for elective orthopedic surgery in an acute care facility. The nurse should assist the patient to assume which of the following positions?
- 1) Lying on the left side
  - 2) High Fowler's
  - 3) Supine
  - 4) Prone
- \_\_\_\_\_ 18. A nurse is preparing a patient with suspected osteomyelitis for a bone biopsy. Prior to beginning the procedure, the nurse should ensure that the:
- 1) Patient understands the purpose of the procedure
  - 2) Health-care provider is credentialed to perform the procedure
  - 3) Time of the patient's last food or fluid was at least 12 hours prior to the time of the procedure
  - 4) Time-out to confirm the patient's identity, procedure to be done, and correct side/site is performed
- \_\_\_\_\_ 19. A nurse is preparing to draw an arterial sample for blood gas analysis. Which equipment should the nurse have available?
- 1) High-flow oxygen facemask
  - 2) Ice slurry in a cup or plastic bag
  - 3) Tourniquet
  - 4) Red-topped Vacutainer tube
- \_\_\_\_\_ 20. A patient who reports palpitations and syncope is admitted to a hospital for observation. The patient has a methemoglobin level of 18%. Which diagnostic data should a nurse identify as most likely to be inaccurate for this patient?
- 1) Arterial blood gases

- 2) CT scan
- 3) Pulse oximetry
- 4) Serum lactate level

- \_\_\_\_\_ 21. A postmenopausal patient is treated for a vertebral fracture. The patient states, "I did not even fall or remember doing anything to cause an injury like this." The patient has a bone mineral densitometry (DEXA) T-score of -3.6. What significant health history should the nurse identify that relates to this clinical presentation?
- 1) History of gastric reflux managed with medication
  - 2) Lacto-ovo vegetarian diet
  - 3) Lifelong, active participation in sports activities
  - 4) Onset of menopause at 58 years
- \_\_\_\_\_ 22. A patient with a family history of glaucoma is advised to have pachymetry. The nurse should explain that the purpose of this test is to:
- 1) Assess collateral structures in the eye
  - 2) Evaluate visual acuity without using dilating drops
  - 3) Measure the thickness of the cornea
  - 4) Obtain a more accurate measure of intraocular pressure
- \_\_\_\_\_ 23. Which instruction should a nurse provide to a patient in preparation for a gastric acid stimulation test?
- 1) "An IV dose of pentagastrin will be administered at the start of the procedure."
  - 2) "Antacids should be taken at bedtime and in the morning prior to the procedure."
  - 3) "No food or fluid for at least 12 hours, but chewing gum or mouthwash can be used the morning of the procedure."
  - 4) "The procedure requires insertion of a nasogastric tube to collect stomach contents."
- \_\_\_\_\_ 24. A nurse is scheduling a laboratory appointment for a patient who needs to have blood drawn for adrenocorticotrophic hormone (ACTH) levels. The best time for this test is:
- 1) 0600-0800
  - 2) 2100-2300
  - 3) Anytime that is convenient for the patient
  - 4) Within 12 hours after strenuous exercise
- \_\_\_\_\_ 25. A gastric acid stimulation test indicates that a patient has gastroparesis. Which teaching should a nurse plan for this patient?
- 1) Eat small, frequent meals that are low fat and low fiber.
  - 2) Increase fiber in the diet, with at least 64 ounces of water daily.
  - 3) To promote gastric emptying, avoid activity for 2 hours after eating.
  - 4) Parenteral nutrition will be necessary, so a peripherally inserted central line will be inserted.
- \_\_\_\_\_ 26. Prior to beginning a urine collection for catecholamine, a nurse should instruct a patient to:
- 1) Increase fluid intake during the 12 hours immediately preceding the test.
  - 2) Limit consumption of bananas, beer, aged cheese, chocolate, and coffee.
  - 3) Maintain an active pattern of exercise for at least 24 hours.
  - 4) Restrict dietary intake of sodium for 3 days.
- \_\_\_\_\_ 27. A nurse is assisting with a radionuclide bone scan of a patient. The radionuclide has just been administered and initial images have been taken to assess blood flow to the bones. How long of a delay should occur at this point to allow the radionuclide to be taken up by the bones before the complete skeleton is imaged?
- 1) 10 to 15 minutes
  - 2) 30 minutes to 1 hour

- 3) 2 to 3 hours
- 4) 4 to 5 hours

- \_\_\_\_\_ 28. A nurse is attempting to insert a needle to obtain a blood specimen from a 4-year-old, but the child, who is being held by her mother, is kicking, screaming, and flailing her arms about. Which nursing diagnosis related to this patient is the most critical?
- 1) Anxiety and fear related to venipuncture
  - 2) Risk for injury, bleeding, hematoma, or infection related to venipuncture
  - 3) Pain related to venipuncture
  - 4) Risk for impaired skin integrity
- \_\_\_\_\_ 29. A patient has had a heart attack and needs to undergo testing to evaluate the resulting damage to the myocardium. Which test would be most appropriate for this purpose?
- 1) Thyroxine, free
  - 2) Triiodothyronine, free
  - 3) Thyroid-stimulating immunoglobulins (TSI)
  - 4) Troponins I and T
- \_\_\_\_\_ 30. A patient's arterial blood gases are pH 7.29,  $\text{HCO}_3^-$  24 mEq/L,  $\text{PO}_2$  74,  $\text{PCO}_2$  52 mm Hg. A nurse assessing this patient should observe for signs and symptoms of:
- 1) Metabolic acidosis.
  - 2) Metabolic alkalosis.
  - 3) Respiratory acidosis.
  - 4) Respiratory alkalosis.
- \_\_\_\_\_ 31. An adult patient's laboratory test results indicate a normal arterial oxygen saturation. Which of the following oxygen saturations is normal?
- 1) 85%
  - 2) 89%
  - 3) 93%
  - 4) 97%
- \_\_\_\_\_ 32. A nurse is assisting with a thyroid biopsy. After the tissue sample is obtained, the nurse should place it in a container with which of the following?
- 1) Saline
  - 2) Formalin solution
  - 3) Heparin
  - 4) EDTA
- \_\_\_\_\_ 33. Prior to a scheduled laboratory blood draw for serum aldosterone level, a nurse should instruct a patient to:
- 1) Decrease potassium in the diet at least 48 hours prior to the test.
  - 2) Increase fluid intake during the 24 hours prior to the test.
  - 3) Remain in either a supine or upright position for at least 2 hours prior to the test.
  - 4) Restrict sodium in the diet for 1 week prior to the test.
- \_\_\_\_\_ 34. A patient with a history of metastatic breast cancer asks about testing for the presence of human epidermal growth factor receptor 2 (HER-2/neu oncoprotein). A nurse should instruct the patient that this test will require a:
- 1) Blood specimen drawn in the early morning
  - 2) Tissue sample obtained by needle biopsy of the breast
  - 3) Tumor sample from the excision of a metastatic site
  - 4) Urine specimen collected over 24 hours

- \_\_\_\_\_ 35. Which laboratory result should a nurse anticipate as part of an initial screening for a patient who is being evaluated for iron-deficiency anemia?
- 1) Iron
  - 2) Serum ferritin
  - 3) Total iron-binding capacity
  - 4) Transferrin saturation
- \_\_\_\_\_ 36. A 90-year-old patient has a carotid duplex ultrasound that shows stenosis of 40% to 60% and a moderate amount of plaque. Which nursing action is most appropriate for this patient?
- 1) Advise the patient that surgery is indicated as soon as possible.
  - 2) Avoid use of aspirin or products containing aspirin.
  - 3) Instruct the patient to immediately report any changes in speech, balance, or vision.
  - 4) Recommend that the patient restrict activity until medication decreases the stenosis.
- \_\_\_\_\_ 37. A patient diagnosed with prostatic hypertrophy has a suprapubic catheter to manage chronic urinary retention. A urine culture shows a bacterial colony count of less than 100,000 organisms/mL. Which intervention by the nurse is appropriate?
- 1) Begin sterile saline flushes of the catheter twice daily until a repeat culture is negative.
  - 2) Encourage adequate intake of fluids to maintain clear, yellow urine.
  - 3) Inform patient that antibiotics will be started as soon as requesting health-care provider writes the order.
  - 4) Plan to insert a new suprapubic catheter as soon as possible.
- \_\_\_\_\_ 38. A geriatric patient asks a nurse about the significance of a bone mineral densitometry (DEXA) T-score measurement of  $-0.75$ . What response by the nurse is most accurate?
- 1) "A negative score on DEXA indicates that you are at a much higher risk of sustaining fractures because your bone density is lower than average."
  - 2) "DEXA compares the amount of bone you have with that a young adult of the same gender with peak bone mass. A T-score above  $-1$  is considered normal."
  - 3) "This kind of scan is not very reliable for geriatric patients. You need to know your Z-score to interpret the significance of this test."
  - 4) "Your T-score of  $-0.75$  means you have osteoporosis, and you will need to take medication to improve your bone mass."
- \_\_\_\_\_ 39. One hour after starting a unit of packed red blood cells, a nurse observes that a patient receiving the transfusion is reporting flank pain and has a temperature of  $101.8^{\circ}\text{F}$  ( $38.8^{\circ}\text{C}$ ). The nurse's *first* action should be to:
- 1) Assess the patient for signs of rash, hives, or angioedema.
  - 2) Confirm that the name on the label on the blood transfusion matches the patient's armband.
  - 3) Medicate the patient with acetaminophen that is ordered prn for pain or fever.
  - 4) Stop the transfusion and maintain IV access with normal saline.
- \_\_\_\_\_ 40. When collecting any specimen for laboratory analysis, what should be a nurse's *first* priority?
- 1) Communicating with the patient about the laboratory test being performed
  - 2) Identifying the patient with the health-care facility's two specific, unique identifiers, such as full name and date of birth
  - 3) Informing the patient of the purpose of the specimen collection
  - 4) Labeling the specimen with the patient's name, room number, or address

- \_\_\_\_\_ 41. A patient is undergoing blood gas testing to assess oxygenation and acid-base balance. Which of the blood gas measurements provide the most information about ventilation and is referred to as the respiratory component of acid-base balance?
- 1)  $\text{PCO}_2$
  - 2)  $\text{PO}_2$
  - 3) pH
  - 4)  $\text{O}_2$  sat
- \_\_\_\_\_ 42. A patient is preparing to undergo transabdominal chorionic villus biopsy. In which position should the nurse place this patient?
- 1) Supine
  - 2) Lithotomy
  - 3) Side-lying
  - 4) Knee-chest
- \_\_\_\_\_ 43. A patient with persistent pleural edema is scheduled for a magnetic resonance imaging (MRI) of the chest. Which information in the patient's medical history should the nurse identify as a contraindication for this procedure?
- 1) Allergy to shellfish
  - 2) Implanted cardiac pacemaker
  - 3) Knee replacement 2 years ago
  - 4) Tattoo on a lower extremity
- \_\_\_\_\_ 44. An infant's laboratory test results reveal elevated bilirubin levels. The nurse should expect to see which of the following skin colorations associated with this condition?
- 1) Yellow
  - 2) Blue
  - 3) Red
  - 4) White
- \_\_\_\_\_ 45. Which laboratory result should a nurse interpret as an indication that a patient with respiratory acidosis is responding to treatment?
- 1) Increased serum  $\text{HCO}_3^-$  concentration
  - 2) Increased heart rate
  - 3) Increased respiratory rate
  - 4) Increased serum creatinine
- \_\_\_\_\_ 46. A nurse is assisting with a liver biopsy. When should the nurse administer ordered prophylactic antibiotics?
- 1) 2 hours before incision
  - 2) Immediately before incision
  - 3) Immediately after liver tissue is excised
  - 4) 1 hour before incision
- \_\_\_\_\_ 47. Which clinical manifestations should a nurse anticipate when assessing a patient who has a bone mineral densitometry (DEXA) T-score of  $-2.75$ ?
- 1) Bowing of the legs, flat feet, and hammertoe
  - 2) Crepitus, morning stiffness, and Heberden's nodes
  - 3) Edema of lower extremities, joint pain, and poor balance
  - 4) Kyphosis, decrease in height, and back pain
- \_\_\_\_\_ 48. A patient has an antimitochondrial antibody (AMA) titer that is more than 1:40 and an alkaline phosphatase (ALP) level of 225 units/L. Based on his information, the nurse should assess this patient for signs of:
- 1) Liver failure

- 2) Renal failure
- 3) Scleroderma
- 4) Pregnancy

- \_\_\_\_\_ 49. Two hours after completing a computed tomography (CT) scan of the brain with contrast, an ambulatory patient asks a nurse for “medication for itching.” What should be the nurse’s first response?
- 1) Administer diphenhydramine 25 mg by mouth ordered as needed for itching.
  - 2) Assess for the time of onset of itching and relationship to known allergies.
  - 3) Identify any associated signs, such as change in vital signs or respiratory status.
  - 4) Instruct patient to take a cool shower or provide cool compresses to relieve itching.
- \_\_\_\_\_ 50. An antenatal patient, in the third trimester of her pregnancy, has an obstetric ultrasound for a biophysical profile (BPP) to assess fetal wellness. The nurse performing the procedure should:
- 1) Score 10 for a normal BPP only after observing for at least 30 minutes.
  - 2) Assess each parameter for at least 5 minutes before scoring.
  - 3) Instruct the patient to count fetal movement for 24 hours to complete the profile.
  - 4) Prepare the patient for the possibility of immediate delivery.
- \_\_\_\_\_ 51. A patient is suspected of having hemochromatosis. Which test would be most appropriate to confirm this suspicion?
- 1) Ham’s test for paroxysmal nocturnal hemoglobinuria (PNH)
  - 2) Haptoglobin
  - 3) Hemoglobin electrophoresis
  - 4) Hemosiderin
- \_\_\_\_\_ 52. A nurse is assisting with a cervical biopsy. During the procedure, iodine solution is used to cleanse the cervix and distinguish normal from abnormal tissue. This intervention is known as which of the following?
- 1) Papanicolaou (Pap) smear
  - 2) Schiller’s test
  - 3) Colposcopy
  - 4) Cone biopsy
- \_\_\_\_\_ 53. A patient is suspected of having myasthenia gravis. Which of the following biopsy procedures should the nurse expect to be performed to assist in diagnosing this condition?
- 1) Lymph node
  - 2) Muscle
  - 3) Prostate
  - 4) Skin
- \_\_\_\_\_ 54. A nurse is performing a template bleeding time test on a patient. A bleeding time greater than which of the following is a critical finding that should prompt the nurse to immediately notify the patient’s health-care provider?
- 1) 2 minutes
  - 2) 7 minutes
  - 3) 14 minutes
  - 4) 21 minutes
- \_\_\_\_\_ 55. A patient has a spinal tap to obtain cerebrospinal fluid (CSF) to test for Alzheimer’s disease (AD) markers. When planning care for this patient after the specimen is collected, a nurse’s priority should be to:
- 1) Assist the family to make a decision about long-term placement for the patient.
  - 2) Keep the patient NPO until able to sit up for meals.
  - 3) Maintain the patient flat in bed for 8 hours or per institutional protocol.
  - 4) Reassure the patient and family that early treatment for Alzheimer’s disease can slow



disease progression.

- \_\_\_\_\_ 56. A patient who is scheduled for percutaneous transhepatic cholangiography (PTC) asks a nurse about the purpose of this examination. Which response by the nurse is correct?
- 1) "A biopsy of your liver will be obtained to determine if you have hepatitis."
  - 2) "A tube will be inserted through your throat and stomach to examine your gallbladder and remove any gallstones that are present."
  - 3) "Your health-care provider will remove your gallbladder through a small tube that is inserted through your abdomen."
  - 4) "Your health-care provider will use a special x-ray to insert a needle into your liver and inject a dye that shows ducts that drain your gallbladder to see if there is an obstruction."
- \_\_\_\_\_ 57. Despite using lotion and drying hands thoroughly after washing, a nurse observes increasing irritation of both hands occurring the day after working. A blood specimen tests positive for latex allergy. What pertinent history should the nurse relate to this finding?
- 1) Allergy to numerous medications, including opiates and aspirin
  - 2) Food allergies, including bananas, kiwis, pineapple, and peaches
  - 3) Working primarily in outpatient and community health settings
  - 4) No known history of previous allergy to food or medication
- \_\_\_\_\_ 58. A patient's laboratory test results indicate an elevated  $\beta$ 2-microglobulin (BMG) blood level. Which of the following conditions would be most associated with this finding?
- 1) Esophageal cancer
  - 2) Leukemia
  - 3) Colon cancer
  - 4) Bladder cancer
- \_\_\_\_\_ 59. A health-care provider has recommended that a patient undergo testing to determine risk for blood clots and stroke. Which test would be most appropriate for this purpose?
- 1) Homovanillic acid (HVA)
  - 2) 5-Hydroxyindoleacetic acid (5-HIAA)
  - 3) Homocysteine and methylmalonic acid
  - 4) Hexosaminidase A and B
- \_\_\_\_\_ 60. A nurse is preparing a patient for collection of cerebrospinal fluid for Alzheimer's disease markers. How should the nurse position the patient for this procedure?
- 1) Assist the patient to a side-lying position with the knees pulled up to the chest and the chin tucked.
  - 2) Direct the patient to stand facing the bed or examination table and lean forward with the chest supported on the bed.
  - 3) Instruct the patient to lie prone on the bed with the arms folded under the head for support.
  - 4) Move the patient into the lateral recumbent position with the head of the bed elevated 45 degrees.
- \_\_\_\_\_ 61. A patient is suspected of having thyroid cancer. Which test would be most appropriate for confirming this suspicion?
- 1) Thyroglobulin
  - 2) Thyroid-binding inhibitory immunoglobulin
  - 3) Thyroxine-binding globulin
  - 4) *Toxoplasma* antibody

- \_\_\_\_\_ 62. The nurse is collecting a urine sample from a patient with an indwelling Foley catheter and notes the urine has a strange odor. To determine the significance of these findings, which question should the nurse ask this patient?
- 1) "Do you smoke cigarettes or use tobacco in any form?"
  - 2) "Have you had sexual intercourse in the past month?"
  - 3) "Have you had a Foley catheter before?"
  - 4) "Have you eaten any onions or garlic lately?"
- \_\_\_\_\_ 63. A nurse notes that a patient has orders for an endoscopy, abdominal ultrasound, gastrointestinal (GI) scintigraphy, and lower GI series. Which of these procedures should the nurse schedule *last*?
- 1) Abdominal ultrasound
  - 2) Endoscopy
  - 3) Lower GI series
  - 4) GI scintigraphy
- \_\_\_\_\_ 64. Which instruction should a nurse give to a patient who is scheduled for an electroencephalography?
- 1) "Avoid washing the hair for at least 24 hours prior to the procedure."
  - 2) "Fast for 12 hours before the time of the procedure."
  - 3) "Hold all medications for 48 hours before the test."
  - 4) "Limit sleep to 5 hours the night before the examination."
- \_\_\_\_\_ 65. A young woman who is planning to become pregnant is informed that she has tested positive for hepatitis B core antibody (HBcAb). The patient asks a nurse what this means. Which response by the nurse is correct?
- 1) "If you have a baby, there is a high risk that the baby will develop hepatitis, so it would be better if you decided not to have children."
  - 2) "The presence of this antibody means you were exposed to hepatitis B in the past, but you are not infected and cannot infect others."
  - 3) "This antibody indicates that you are a carrier of hepatitis B, and your baby will need vaccination immediately at birth."
  - 4) "You currently have an active infection, and you should avoid sexual contact until you are treated for the infection."
- \_\_\_\_\_ 66. A patient is suspected of having iron-deficiency anemia. Which test would be most appropriate for confirming this suspicion?
- 1) Thyroxine, free
  - 2) Transferrin
  - 3) Triglycerides
  - 4) Thyroid-stimulating hormone (TSH)
- \_\_\_\_\_ 67. A nurse is collecting blood from a patient for natriuretic peptide testing. This test assists in diagnosing which of the following?
- 1) Congestive heart failure
  - 2) Stroke
  - 3) Leukemia
  - 4) Chronic obstructive pulmonary disease (COPD)
- \_\_\_\_\_ 68. A patient's laboratory test results indicate a positive finding for varicella antibodies in the blood. The nurse knows that this finding is associated with which of the following?
- 1) Chickenpox
  - 2) Measles
  - 3) Mumps
  - 4) Scarlet fever

- \_\_\_\_ 69. During collection of a venous blood sample, a nurse finds it difficult to locate a patient's vein while wearing gloves. Which action by the nurse is most appropriate?
- 1) Identify landmarks where the vein is palpable and attempt venipuncture with gloves on.
  - 2) Obtain assistance from another nurse to perform venipuncture.
  - 3) Remove one glove from the dominant hand to palpate the vein.
  - 4) Tear off one or two fingertips from the glove to make the fingertips accessible for palpation.
- \_\_\_\_ 70. A patient is undergoing a standard barium swallow. Which of the following structures is the focus of this test?
- 1) Mouth
  - 2) Esophagus
  - 3) Stomach
  - 4) Small intestine
- \_\_\_\_ 71. A patient is suspect of having sarcoidosis. Which type of biopsy should the nurse expect this patient to undergo?
- 1) Liver
  - 2) Lung
  - 3) Kidney
  - 4) Intestinal
- \_\_\_\_ 72. A patient is undergoing a hepatobiliary scan, including assessment of bile reflux. As part of this procedure, the nurse must give the patient which of the following 60 minutes after injection of the radionuclide?
- 1) A high-fat meal
  - 2) A high-protein meal
  - 3) A high-glucose beverage
  - 4) A high-fiber meal
- \_\_\_\_ 73. Due to the congenital deficiency of a particular vitamin in newborns, a nurse routinely administers a prophylactic shot of this vitamin to all newborns to prevent hemorrhagic disease of the newborn. Which vitamin is this nurse administering?
- 1) Vitamin C
  - 2) Vitamin D
  - 3) Vitamin E
  - 4) Vitamin K
- \_\_\_\_ 74. A patient is undergoing evaluation for possible Addison's disease. Which test should the nurse anticipate?
- 1) Adrenocorticotrophic hormone (ACTH)
  - 2) Growth hormone (GH) stimulation test
  - 3) Serum prolactin test
  - 4) Thyroid-stimulating hormone (TSH)
- \_\_\_\_ 75. A patient has an increased parathyroid hormone (PTH) level. Based on this information, a nurse should also assess for:
- 1) Decreased serum calcium and serum phosphate levels
  - 2) Decreased serum sodium and potassium
  - 3) Increased serum calcium and decreased serum phosphate levels
  - 4) Increased serum glucose and uric acid
- \_\_\_\_ 76. A nurse reviews the Gram stain results from a patient's sputum culture. Which finding indicates that the specimen is contaminated by oral flora?
- 1) Presence of polymorphonuclear neutrophils
  - 2) More than 25 squamous epithelial cells per lower power field

- 3) Positive for gram-negative bacteria and white blood cells
- 4) Presence of homogeneous microbial flora

- \_\_\_\_\_ 77. A patient is suspected of having an ovarian carcinoid tumor. Which test would be most appropriate for confirming this suspicion?
- 1) Homovanillic acid (HVA)
  - 2) 5-Hydroxyindoleacetic acid (5-HIAA)
  - 3) Homocysteine and methylmalonic acid
  - 4) Hexosaminidase A and B
- \_\_\_\_\_ 78. Which description correctly describes the correct technique that a nurse should use to obtain a throat culture?
- 1) Instruct the patient to gargle with saltwater to remove normal oral flora and then obtain the culture by first eliciting a gag reflex and then swabbing the posterior oropharynx.
  - 2) Rub the swab firmly but gently over the back of the throat and around both tonsils while avoiding contact with the tongue and lips.
  - 3) Swab only areas where there is evidence of inflammation, exudate, or ulceration.
  - 4) Tilt the patient's head back and gently swab all surfaces, starting from the tonsils and moving outward to the cheeks and tongue.
- \_\_\_\_\_ 79. A sickle cell screen ordered for a 2-month-old based on a family history of sickle cell trait returns with a negative result. Which action by the nurse is most appropriate?
- 1) Discuss the importance of birth control to avoid exposing another child to the risk of this disorder.
  - 2) Instruct the family in strategies to decrease the risk of sickle cell crisis for this infant.
  - 3) Reassure the family that the infant will not develop sickle cell disease since the family history is for sickle cell trait.
  - 4) Review the need for further evaluation to confirm this result.
- \_\_\_\_\_ 80. A nurse has orders to obtain urine for urinalysis, but the patient has voided only a small amount. What is the minimal volume of urine that the nurse can send for a routine urinalysis?
- 1) 15 mL
  - 2) 30 mL
  - 3) 50 mL
  - 4) 100 mL
- \_\_\_\_\_ 81. Which of the following is a toxin found naturally in the seeds of the castor oil plant?
- 1) Anthrax
  - 2) Ricin
  - 3) Brucellosis
  - 4) Botulism
- \_\_\_\_\_ 82. A nurse is reviewing a patient's chest x-ray that is described as a "PA view." This indicates that the x-ray was taken by directing the beam:
- 1) At an angle from the patient's mediastinum through the vertebrae
  - 2) From front to back with the patient in a supine position on the x-ray table
  - 3) From the patient's right side through the left side
  - 4) Through the patient from the back to the front
- \_\_\_\_\_ 83. A patient's laboratory test results indicate a positive finding for hepatitis A antibody. Given this virus's primary mode of transmission, the nurse should provide teaching to the patient on which of the following?
- 1) Risk of sharing needles
  - 2) Frequent hand hygiene
  - 3) Importance of using condoms during sex

4) Danger of a baby acquiring the infection from the mother at birth

- \_\_\_\_\_ 84. The mother of a 6-month-old would like to have her child tested for Tay-Sachs disease because of a family history of this inherited disorder. Which test would be most appropriate for this purpose?
- 1) Homovanillic acid (HVA)
  - 2) 5-Hydroxyindoleacetic acid (5-HIAA)
  - 3) Homocysteine and methylmalonic acid
  - 4) Hexosaminidase A and B
- \_\_\_\_\_ 85. A patient has been diagnosed with rickets. The nurse is aware that this condition is associated with a deficiency in which vitamin?
- 1) Vitamin C
  - 2) Vitamin D
  - 3) Vitamin E
  - 4) Vitamin K
- \_\_\_\_\_ 86. A patient with a history of asthma is scheduled for a radioallergosorbent test (RAST) for IgE. The patient asks the nurse about the purpose of this test. The best response by the nurse is to explain that the RAST:
- 1) "Assists the health-care provider to make an accurate diagnosis of the type of asthma"
  - 2) "Determines the best type of medication to manage the patient's asthma"
  - 3) "Helps decrease sensitivity to antigens that cause asthma"
  - 4) "May identify specific antigens that can exacerbate asthma"
- \_\_\_\_\_ 87. A nurse is preparing to perform venipuncture on a 6-month-old infant with anemia. The infant has had multiple specimens drawn over an extended hospitalization. The mother is very anxious and tells the nurse that she does not want any more blood drawn because it is too upsetting. Which response by the nurse is most appropriate?
- 1) "I am sure you think this is best for your child, but you are interfering with treatment by refusing this test."
  - 2) "If you are sure you do not want the test done, I will call your health-care provider to get it cancelled. It is up to you."
  - 3) "Your health-care provider ordered this test, so I am sure you want to have it done or your health-care provider will not be able to do what is best for your child."
  - 4) "We all want what is best for your child. Tell me more about why you are upset now."
- \_\_\_\_\_ 88. A patient admitted to an emergency department with trauma after a motorcycle accident needs blood drawn. The patient has a fracture of the right arm that is splinted, lacerations of both legs, and IV fluids infusing in the left antecubital space. Which is the most appropriate intervention for a nurse to use to collect the required blood specimens?
- 1) Access a vein in the foot for specimen collection.
  - 2) Request insertion of a central line to use for blood collection and IV access as needed.
  - 3) Stop the IV infusion for 2 minutes and then access a site below the IV.
  - 4) Use a butterfly needle to access a vein in the right hand.
- \_\_\_\_\_ 89. Initial testing indicates that a patient has hypothyroidism, but additional testing is required to confirm this. Which of the following is a complementary adjunct test that would be appropriate for this purpose?
- 1) Thyroxine, free
  - 2) Triiodothyronine, free
  - 3) Thyroid-stimulating immunoglobulins (TSI)
  - 4) Troponins I and T
- \_\_\_\_\_ 90. A patient is suspected of having basal cell carcinoma. Which of the following biopsy procedures should the nurse expect to be performed to assist in diagnosing this condition?

- 1) Lymph node
- 2) Muscle
- 3) Prostate
- 4) Skin

- \_\_\_\_\_ 91. A neonate born to a multiparous mother with Rh negative blood is being evaluated for the potential of hemolytic disease of the newborn (HDN) and has a positive direct Coombs' antiglobulin test (DAT). The nurse's priority intervention should be to:
- 1) Assess jaundice at birth or onset in the first 24 hours.
  - 2) Administer Rh immune globulin vaccine to the neonate at birth.
  - 3) Instruct the mother in the benefits of formula feeding to prevent jaundice.
  - 4) Keep the neonate NPO until after exchange transfusion.
- \_\_\_\_\_ 92. A patient asks a nurse if having a computed tomography (CT) scan for cardiac scoring is really necessary. What information in the patient's history indicates that this test is indicated?
- 1) 30 year-old-female, overweight, high-stress occupation, total cholesterol 110 mg/dL
  - 2) 45-year-old male, type 2 diabetes, sedentary lifestyle, HDL cholesterol 35 mg/dL
  - 3) 60-year-old female with no family history of heart disease, active lifestyle, nonsmoker
  - 4) 70-year-old male, participates in senior triathlons, body mass index 21.2, history of hypertension
- \_\_\_\_\_ 93. A patient is suspected of having Graves' disease. Which test would be most appropriate for confirming this suspicion?
- 1) Thyroxine, total
  - 2) Triiodothyronine, free
  - 3) Thyroid-stimulating immunoglobulins (TSI)
  - 4) Troponins I and T
- \_\_\_\_\_ 94. A patient is found to have prostatic hypertrophy of unknown etiology. Which of the following biopsy procedures should the nurse expect to be performed to assist in diagnosing this condition?
- 1) Lymph node
  - 2) Muscle
  - 3) Prostate
  - 4) Skin
- \_\_\_\_\_ 95. Which instruction should a nurse give to a patient who needs to collect a sputum specimen for culture?
- 1) Collect the specimen just before bedtime.
  - 2) Keep the container nearby until at least 60 mL is collected.
  - 3) Perform mouth care prior to specimen collection.
  - 4) Restrict fluid for 12 hours prior to specimen collection.
- \_\_\_\_\_ 96. A nurse is preparing a patient for a pelvic, nonobstetric ultrasound. Which information, reported by the patient, should the nurse identify as a contraindication for this procedure?
- 1) Barium study 2 weeks ago
  - 2) Latex allergy
  - 3) Menstruating
  - 4) History of rape
- \_\_\_\_\_ 97. A cystometry evaluation reveals that an adult patient reports an urge to void when the bladder is filled at the 200 mL level and that the bladder pressure is 60 cm H<sub>2</sub>O. The nurse should use these results to plan interventions for:
- 1) Decreased ability to identify bladder sensation
  - 2) Improving bladder capacity

- 3) Maintaining a normal voiding pattern
  - 4) Managing urinary incontinence secondary to decreased bladder capacity
- \_\_\_ 98. To minimize injury when performing a heel stick for collection of a specimen from a full-term neonate, a nurse should use an automatic lancet that has a puncture depth that does not exceed:
- 1) 0.8 mm
  - 2) 1.5 mm
  - 3) 2.0 mm
  - 4) 3.2 mm
- \_\_\_ 99. A patient is suspected of having hypothyroidism. Which test would be most appropriate for confirming this suspicion?
- 1) Thyroglobulin
  - 2) Thyroid-binding inhibitory immunoglobulin
  - 3) Thyroxine-binding globulin
  - 4) *Toxoplasma* antibody
- \_\_\_ 100. Which statement by a nurse will ensure that a specimen is obtained from the correct patient?
- 1) "Are you [state patient's full name]?"
  - 2) "I am comparing the name on your armband to this lab requisition form."
  - 3) "Please state your full name and birth date."
  - 4) "What test did your health-care provider order for you?"
- \_\_\_ 101. A nurse reviewing the results of a biophysical profile (BPP) notes that the score is 6. The nurse's initial response should be to:
- 1) Discuss the need for immediate delivery of a stillborn fetus.
  - 2) Inform the patient that the test will be repeated in 1 week to confirm the results.
  - 3) Prepare the patient for a nonstress test.
  - 4) Refer the patient for genetic counseling.
- \_\_\_ 102. A patient is scheduled for an adrenal gland scan. What information should the nurse impart to the patient about this examination prior to the test?
- 1) Following the procedure, the patient should restrict fluid intake for at least 48 hours.
  - 2) The entire procedure will be completed in 1 day.
  - 3) The patient must take a saturated solution of potassium iodide before and after the examination.
  - 4) The procedure requires approximately 1 hour.
- \_\_\_ 103. A patient's malignant melanoma is suspected of having metastasized. Which of the following biopsy procedures should the nurse expect to be performed to determine the stage of metastatic cancer?
- 1) Lymph node
  - 2) Muscle
  - 3) Prostate
  - 4) Skin
- \_\_\_ 104. A patient with angle-closure glaucoma is scheduled for fundus photography. When preparing the patient for the procedure, which medication order should the nurse question?
- 1) Atropine
  - 2) Carbachol
  - 3) Mannitol
  - 4) Pilocarpine

- \_\_\_\_ 105. At the first prenatal visit, a primiparous patient with type O negative blood has a negative indirect antiglobulin (IAT) Coombs' test. Which response by the nurse is most accurate when the patient asks what this result means?
- 1) "A negative result means that you already are sensitized and you should not receive Rh immune globulin vaccine."
  - 2) "Your blood cells at this point do not react to antibodies that could cause problems for your baby, but you will need follow-up antibody testing in your last trimester."
  - 3) "The Coombs' indirect test can identify if your baby has the same blood type as you do. If not, your health-care provider will order more tests to determine if you need a transfusion before delivery."
  - 4) "This is a routine test screening for antibodies that may cause problems in the newborn, but since you are a universal donor with type O blood, it has no significance for you."
- \_\_\_\_ 106. During vision screening for school-aged children, a school health nurse asks each child to view several charts with "maze dots" and "trace the pattern or number." What is the nurse assessing with this test?
- 1) Fine motor coordination
  - 2) Hereditary defects in color perception
  - 3) Oculomotor nerve function
  - 4) Visual acuity
- \_\_\_\_ 107. A patient is suspected of having Graves' disease. Which test would be most appropriate for confirming this suspicion?
- 1) Thyroglobulin
  - 2) Thyroid-binding inhibitory immunoglobulin
  - 3) Thyroxine-binding globulin
  - 4) *Toxoplasma* antibody
- \_\_\_\_ 108. A nurse is reviewing the pulse oximetry results of several patients. For which patient should the nurse consider the results questionable?
- 1) Ambulatory patient with blood pressure 150/92 mm Hg
  - 2) Febrile patient with temperature 103.2°F (39.6°C)
  - 3) Patient on bedrest and receiving oxygen 2 L/min via nasal cannula
  - 4) Postoperative patient with a temperature of 95.8°F (35.4°C)
- \_\_\_\_ 109. A nurse works in an outpatient clinic where urinalysis dipstick testing is routinely performed. To ensure that the urinalysis results obtained are accurate, the nurse should:
- 1) Discard all unused dipsticks 30 days after opening the bottles.
  - 2) Observe the recommended timing when interpreting the dipstick results.
  - 3) Protect the dipstick from direct light when reading the result.
  - 4) Remove the desiccant from each dipstick container when it is first opened.
- \_\_\_\_ 110. A patient with a family history of early-onset coronary artery disease is tested for apolipoprotein A and B (apo A and apo B). The patient has concerns about the need for another blood test. Which is the best response by the nurse when the patient asks about the purpose of the apolipoprotein test?
- 1) "A high apolipoprotein level means that you are more likely to respond to diet changes and medications to control your cholesterol."
  - 2) "As long as you do not have symptoms, this test is just a way to monitor your overall health, so you should not worry about it."
  - 3) "Knowing your apolipoprotein helps your health-care provider better determine your risk for coronary artery disease when you have a high triglyceride level."
  - 4) "This is just one more test that your health-care provider wants, so you should to do it since it should be important."



- \_\_\_ 111. Which observation by a nurse indicates that a scheduled venous Doppler study is contraindicated for this patient?
- 1) Contact isolation
  - 2) Receiving patient-controlled analgesia (PCA) for chronic back pain
  - 3) Restless, confused, and needs frequent reminders to remain in bed
  - 4) Venous stasis ulcer on both lower extremities
- \_\_\_ 112. A hospitalized patient, who is scheduled for a 2-hour postprandial blood glucose test, has fasting blood glucose of 180 mg/dL on the day of the test. Which action by the nurse is most appropriate?
- 1) Administer the scheduled dose of insulin and proceed with the test as scheduled.
  - 2) Instruct the patient to eat only one-half of the meal prescribed for the test.
  - 3) Hold the scheduled dose of insulin and notify the laboratory.
  - 4) Notify the requesting health-care provider and the laboratory to cancel the test.
- \_\_\_ 113. A nurse advocates for hepatitis A virus (HAV) screening for all individuals who are at high risk in the community. Which of the following represents a group at high risk for HAV?
- 1) Infants born to infected mothers
  - 2) Recipients of blood transfusions
  - 3) Workers at industrial facilities
  - 4) Residents of a long-term care facility
- \_\_\_ 114. An adolescent visits a student health clinic to request a “mono test.” The student reports having a sore throat and feeling tired. The student also tells a nurse that a sibling has been diagnosed with mononucleosis recently. The Monospot test is negative. Which intervention by the nurse is most appropriate?
- 1) Explain that the negative test could be a false negative and the student should return in 1 week for a repeat test.
  - 2) Instruct the student to remain at home until the symptoms resolve to avoid infecting other students.
  - 3) Reassure the student that the symptoms are not mononucleosis and will resolve within 1 week.
  - 4) Refer the student to a counselor to resolve issues of jealousy related to the attention the sibling is receiving related to mononucleosis.
- \_\_\_ 115. A nurse is caring for a patient who will be undergoing a thyroid scan. How many hours before the scan should the nurse administer oral iodine-123 (I-123) to the patient?
- 1) 24 hours
  - 2) 12 hours
  - 3) 4 hours
  - 4) 2 hours
- \_\_\_ 116. A nurse is preparing a patient for thoracotomy under general anesthesia. Which type of lung biopsy requires this type of surgery?
- 1) Open biopsy
  - 2) Needle biopsy
  - 3) Transbronchial biopsy
  - 4) Transcatheter bronchial brushing
- \_\_\_ 117. A nurse is preparing to collect a blood specimen from an 8-year-old patient who requires frequent venipuncture related to a chronic illness. The patient is anxious and pulls his arm away as the nurse begins the prep for the procedure. Which action by the nurse is most appropriate?
- 1) Apply a topical anesthetic such as EMLA and reassure the patient that the venipuncture will not hurt.

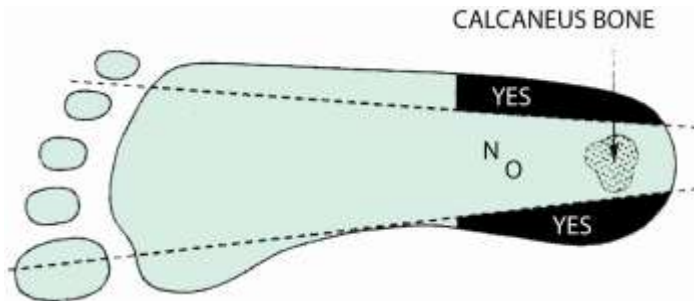
- 2) Ask the child's parent to restrain the patient during the procedure.
- 3) Involve the child in the procedure by asking him to help by holding the gauze and bandage to use after the specimen is collected.
- 4) Request assistance from another staff member to restrain the patient.

- \_\_\_ 118. Two months after a patient is diagnosed with AIDS, a repeat CD4/CD8 enumeration (T-cell profile) shows an increase from 0.8 to 1.1. The patient asks the nurse whether this means that the infection is gone. Which response by the nurse is most accurate?
- 1) "A lower CD4/C8 ratio should indicate that your body is fighting the infection, so you will not need further treatment."
  - 2) "If your T-cell profile keeps improving, then you can consider yourself cured."
  - 3) "The T-cell profile can improve initially without treatment, but you still have the virus, and over time your T-cell profile will decrease."
  - 4) "This ratio is not very meaningful since it varies with your overall white blood cell count."
- \_\_\_ 119. A patient has an order for a urine specimen to measure collagen crosslinked N-telopeptide (NTx). The results show that this patient's NTx has decreased. When reviewing this diagnostic result, the nurse is evaluating this patient's response to treatment for:
- 1) Hyperthyroidism
  - 2) Hypothyroidism
  - 3) Osteoporosis
  - 4) Thrombocytopenia
- \_\_\_ 120. A nurse is collecting a capillary specimen for blood glucose from a patient on an insulin drip to treat postoperative hyperglycemia. The patient reports pain from the multiple, hourly fingersticks required by the intensive insulin protocol. Which action by the nurse is most appropriate?
- 1) Decrease the frequency of the fingersticks to every other hour.
  - 2) Alternate sites by using the great toe on either foot instead of the fingers.
  - 3) Use the earlobe or forearm as alternate sites.
  - 4) Ensure that the puncture is not on the finger pad and avoiding bruised areas.
- \_\_\_ 121. A patient needs to undergo initial testing of thyroid function. Which test, in addition to TSH, would be most appropriate for this purpose?
- 1) Thyroxine, free
  - 2) Triiodothyronine, free
  - 3) Thyroid-stimulating immunoglobulins (TSI)
  - 4) Troponins I and T
- \_\_\_ 122. A patient who recently completed a multigated blood pool imaging (MUGA) scan asks what it means that the test showed an ejection fraction of 65%. Which answer by the nurse is most accurate?
- 1) "This scan shows that your heart was affected by a heart attack at some time in the past, since your ejection fraction is below average."
  - 2) "The ejection fraction shows the effectiveness of the pumping function of the ventricles. A normal ejection fraction is 55% to 65%."
  - 3) "Since the ejection fraction is so low, these results indicate that your heart does not pump as effectively as it should when you are exercising."
  - 4) "Your health-care provider will follow up with you, but your results will require treatment since your ejection fraction was so high."
- \_\_\_ 123. A patient diagnosed with type 1 diabetes has orders for fluorodeoxyglucose (FDG)-positron emission tomography (PET) as part of a diagnostic work-up for possible Parkinson's disease. The nurse should plan for this procedure to occur:

- 1) First thing in the morning before the patient has insulin or eats
- 2) Four hours after the patient has a pretest dose of insulin and a meal
- 3) Late in the day after the patient has exercised
- 4) Whenever there is a time available, since there are no restrictions related to food or drink

- \_\_\_ 124. A patient's genetic test results related to thyroid cancer indicate high levels of the genetic marker BRAF. Which type of thyroid cancer does this marker indicate?
- 1) Follicular
  - 2) Medullary
  - 3) Papillary
  - 4) Multiple endocrine neoplasia
- \_\_\_ 125. A nurse reviews the carcinoembryonic antigen (CEA) results for a patient who is undergoing treatment for colon cancer. The nurse notes that, after a period of decrease, the results of the CEA are now increasing. Which additional question should the nurse ask before interpreting the significance of this result?
- 1) "Does the patient have any new symptoms?"
  - 2) "Has the patient been compliant with the treatment regimen?"
  - 3) "Has the patient's health-care provider indicated that cancer is in remission?"
  - 4) "Is the patient smoking?"
- \_\_\_ 126. A patient's laboratory test results following urine analysis for bladder cancer markers demonstrate a positive finding for bladder cancer based on an nuclear matrix protein (NMP) 22 level of 11 units/mL. However, the requesting provider is concerned that this could be a false positive. Which of the following interfering factors would most likely result in a false-positive of this marker?
- 1) Incorrect fixative
  - 2) Inadequate number of bladder cells in the specimen
  - 3) Inflammation of the bladder
  - 4) Gross contamination from blood
- \_\_\_ 127. A patient presents with complaints of red-tinged urine in the mornings and symptoms of anemia. The health-care provider suspects a rare form of intravascular hemolytic anemia. Which test would be most appropriate to confirm this suspicion?
- 1) Ham's test for paroxysmal nocturnal hemoglobinuria (PNH)
  - 2) Haptoglobin
  - 3) Hemoglobin electrophoresis
  - 4) Hemosiderin
- \_\_\_ 128. A patient is suspected of having congenital hypothyroidism, but the primary test used for this purpose provided insufficient information. Which complementary test would be most appropriate for confirming this suspicion?
- 1) Thyroxine, free
  - 2) Transferrin
  - 3) Triglycerides
  - 4) Thyroid-stimulating hormone (TSH)
- \_\_\_ 129. A nurse is assisting with cystoscopy for a patient undergoing bladder biopsy. The urologist has just inserted the cystoscope into the patient's urethra. Which of the following is the next step the nurse should expect in this procedure?
- 1) Cleaning of the external genitalia with a suitable antiseptic solution
  - 2) Irrigation of the bladder with saline
  - 3) Examination of the bladder and urethra by direct and lighted visualization
  - 4) Removal of a tissue sample using a cytology brush or biopsy forceps

- \_\_\_\_ 130. A patient with a positive Papanicolaou (Pap) smear is scheduled for a colposcopy. The nurse should explain to the patient that the purpose of this procedure is to:
- 1) Obtain another sample for repeat Pap smear
  - 2) Identify areas of cellular dysplasia
  - 3) Remove products of conception
  - 4) Treat a suspected malignancy
- \_\_\_\_ 131. A patient reports to an emergency department with a sudden onset of shortness of breath and right-sided chest pain. The patient has a negative D-dimer test. Based on this result, a nurse should plan interventions to manage:
- 1) Acute myocardial infarction (MI)
  - 2) Deep vein thrombosis (DVT)
  - 3) Pulmonary embolism (PE)
  - 4) Spontaneous pneumothorax
- \_\_\_\_ 132. A nurse is collecting morning blood specimens from a geriatric patient with small veins that collapse or disappear when the nurse tries to insert the needle. The patient has IV fluids infusing through a peripherally inserted central catheter (PICC) in the left antecubital area. After two attempts in the right antecubital space using a Vacutainer, the nurse is unable to obtain the required specimens. Which action is most appropriate for the nurse to take next?
- 1) Attempt again using a syringe attached to a butterfly needle.
  - 2) Confirm the requesting health-care provider's order and institutional policy regarding the use of a PICC for specimen collection.
  - 3) Request assistance from a more experienced nurse to attempt venipuncture again.
  - 4) Using a 5 mL syringe, withdraw a sample from the Y-port closest to the patient's PICC insertion point.
- \_\_\_\_ 133. During a lactose-tolerance test, a patient's fasting glucose level of 98 mg/dL increases by 10 mg/dL. For which clinical manifestations should a nurse assess this patient?
- 1) Abdominal bloating, pain, flatus, and diarrhea
  - 2) Constipation, pain on defecation, and cramping
  - 3) Cramping, increased frequency of urination, and blood in the stool
  - 4) Loose, greasy stools with alternating diarrhea and constipation
- \_\_\_\_ 134. A patient has been diagnosed with scurvy. The nurse is aware that this condition is associated with a deficiency in which vitamin?
- 1) Vitamin C
  - 2) Vitamin D
  - 3) Vitamin E
  - 4) Vitamin K
- \_\_\_\_ 135. nurse is preparing to collect a capillary blood glucose specimen from a neonate. Which site is most appropriate for the nurse to use?



- 1) A (label on medial aspect of plantar surface of heel)
- 2) B (label on midposterior curvature directly over calcaneus)
- 3) C (label on ball of the foot)
- 4) D (label over arch of foot)

- \_\_\_ 136. A patient has blood drawn for a TORCH serological screen. Which assessment finding is a nurse most likely to document for this patient?
- 1) Blood donor
  - 2) Diabetic with nephropathy
  - 3) Pregnant female
  - 4) Transfusion recipient
- \_\_\_ 137. A patient admitted with a fever of unknown origin has orders for “blood cultures x 3.” The nurse should inform the patient that this procedure involves:
- 1) Collecting three samples daily in the morning, with one venipuncture when other daily blood work is obtained.
  - 2) Obtaining three samples from different sites, with each sample requiring venipuncture.
  - 3) Obtaining sufficient blood to prepare three sets of culture vials with one venipuncture.
  - 4) Using random specimens, collected at the time any other blood sample is obtained, to minimize the number of venipunctures required.
- \_\_\_ 138. A patient is suspected of having thalassemia. Which test would be most appropriate to confirm this suspicion?
- 1) Ham’s test for paroxysmal nocturnal hemoglobinuria (PNH)
  - 2) Haptoglobin
  - 3) Hemoglobin electrophoresis
  - 4) Hemosiderin
- \_\_\_ 139. A patient is preparing to undergo intestinal biopsy. Which of the following conditions would be a contraindication for this procedure?
- 1) Celiac disease
  - 2) Intestinal malignancy
  - 3) Bleeding disorder
  - 4) Parasitic infection
- \_\_\_ 140. A nurse is preparing to draw blood from a patient who is deaf. A family member who is present has been using sign language to assist staff with communication. Which action by the nurse is most appropriate?
- 1) Ask the family member if the patient will cooperate with the procedure.
  - 2) Discuss the procedure and the patient’s preferences with the family member before beginning the procedure.
  - 3) Face the patient while explaining the procedure to the family member and maintaining eye contact while the family member interprets.
  - 4) Provide written information and use a whiteboard so the patient can communicate without violating the patient’s privacy.

- \_\_\_\_ 141. A patient diagnosed with heart failure has a B-type natriuretic peptide (BNP) level of 945 pg/mL upon admission to the hospital. At discharge, the patient's BNP is 435 pg/mL. Which discharge instruction should the nurse emphasize for this patient?
- 1) "Have additional pillows available in case you have increased dyspnea at night."
  - 2) "Maintain bedrest if there is any edema of the ankles or feet."
  - 3) "Monitor weight daily, and report weight gain immediately."
  - 4) "Take vitamins E and C daily to improve cardiac function."
- \_\_\_\_ 142. A patient seeks medical evaluation due to frequent episodes of palpitations that interfere with sleep and daily activities. A Holter monitor is ordered. Which instruction should the nurse give to this patient regarding the monitor?
- 1) "While wearing the monitor, you should avoid strenuous activity but continue your usual daily routine."
  - 2) "The Holter monitor has a limited battery supply, so you will need to keep it plugged into a receptacle for it to record."
  - 3) "You should wear the Holter monitor during the day, but it can be removed at bedtime so you can sleep."
  - 4) "Your record of your symptoms is very important to interpret the Holter monitor recording."
- \_\_\_\_ 143. Which characteristic alterations in urinalysis should a nurse identify as a sign of improvement for a patient being treated for acute glomerulonephritis (AGN)?
- 1) Decreased specific gravity and hematuria
  - 2) Decreased specific gravity and slight proteinuria
  - 3) Increased specific gravity and glycosuria
  - 4) Increased specific gravity and 1+ proteinuria
- \_\_\_\_ 144. A nurse is assisting with tuning fork tests to assess for hearing loss in a patient. Which of the following would indicate conduction hearing loss?
- 1) Bing test: no change in the loudness of the sound
  - 2) Rinne test: longer and louder tone heard by air conduction than by bone conduction
  - 3) Schwabach test: same tone loudness heard equally long by the examiner and the patient
  - 4) Weber test: same tone loudness heard equally in both ears
- \_\_\_\_ 145. A nurse assists a patient to collect a sputum specimen. The nurse examines the specimen and determines it is satisfactory for a culture based on the observation that the specimen is:
- 1) Colorless and runny
  - 2) Light pink and flowing
  - 3) Viscous and light yellow
  - 4) Watery and transparent or clear
- \_\_\_\_ 146. A patient visiting a prenatal clinic has a negative result for toxoplasma antibody. Based on this result, a nurse should identify a need for patient teaching when the patient's history indicates that the patient:
- 1) Has recently traveled overseas with her spouse
  - 2) Has three cats
  - 3) Is a kindergarten teacher
  - 4) Regularly hikes as a hobby
- \_\_\_\_ 147. A patient requiring frequent blood samples tells the nurse preparing to obtain a specimen that "the best vein is here in my right elbow on the side." The nurse observes that the vein is visible and palpable and has mild ecchymosis, but no pain. Which action by the nurse is most appropriate?
- 1) Acknowledge the patient's information, but tell the patient it is better to use another site

this time.

- 2) Begin by applying the tourniquet to the left arm to assess potential sites while reassuring the patient of your expertise.
- 3) Examine the site the patient indicates and attempt to obtain the specimen there first.
- 4) Thank the patient for the information, but do not use a previously used vein.

- \_\_\_ 148. A nurse is instructing a patient who is scheduled for a colonoscopy on preparations for the procedure. Which medication should the patient discontinue at least 1 week prior to the colonoscopy?
- 1) ACE inhibitors
  - 2) Acetaminophen products
  - 3) Opiates
  - 4) Oral iron preparations
- \_\_\_ 149. A patient is undergoing a bone biopsy in which a serrated needle is inserted into the bone to remove a plug of bone. The nurse understands that this type of biopsy is known as which of the following?
- 1) Fine-needle biopsy
  - 2) Core-needle biopsy
  - 3) Open biopsy
  - 4) Surgical biopsy
- \_\_\_ 150. A patient reports sudden onset of pain in the orbital area with blurred vision and a “halo.” Based on symptoms and the finding of fixed and dilated pupil upon physical examination by the HCP, the patient is diagnosed with acute angle closure glaucoma. The patient’s intraocular pressure (IOP) is 31 mm Hg. Which intervention by a nurse is appropriate?
- 1) Apply an eye patch to the affected eye until medication takes effect.
  - 2) Instruct the patient in the correct technique for administering eyedrops.
  - 3) The nurse should initiate the facility’s procedure for medical emergencies that require transfer of a patient to the nearest ER.
  - 4) Provide information about glaucoma treatment.
- \_\_\_ 151. A nurse performs an Allen test. By performing an Allen test, the nurse is preparing to perform a (an):
- 1) Arterial blood gas (ABG)
  - 2) Capillary blood glucose (CBG)
  - 3) Liver biopsy
  - 4) Vision screening
- \_\_\_ 152. A patient has been diagnosed with hemolytic anemia. The nurse is aware that this condition is associated with a deficiency in which vitamin?
- 1) Vitamin C
  - 2) Vitamin D
  - 3) Vitamin E
  - 4) Vitamin K
- \_\_\_ 153. A patient’s laboratory test results indicate congestive heart failure. Which of the following is a sign or symptom of this condition that the nurse should expect to observe in this patient?
- 1) Decreased peripheral pulses
  - 2) Increased urinary output
  - 3) Warm, dry skin
  - 4) Bradypnea
- \_\_\_ 154. A nurse is preparing to administer a tuberculin skin test to a patient who has never had this test before. What should the nurse have available before administering the tuberculin intradermally?
- 1) 24-gauge 5/8-inch needle

- 2) Chlorhexidine skin prep
- 3) Epinephrine 1:1000
- 4) Gauze sponge to wipe up any blood

- \_\_\_\_ 155. A 26-year-old college student having a routine screening completed at an annual gynecological examination has a negative varicella antibody titer. Which evaluation by the nurse is appropriate for this patient?
- 1) If there is a positive history of varicella infection in childhood, then this is a reliable indicator of immunity from infection.
  - 2) The patient will need this test repeated in 7 to 14 days to confirm that she has no varicella antibodies.
  - 3) Vaccination is not required since a negative result confirms there is no susceptibility to varicella.
  - 4) Varicella vaccination should be administered if there is no chance of pregnancy, and the patient needs to avoid pregnancy for at least 1 month afterward.
- \_\_\_\_ 156. Which intervention should a nurse plan to decrease pain when collecting a blood specimen from a neonate?
- 1) Apply EMLA cream to the heel 5 minutes before the procedure.
  - 2) Give a weight-based dose of acetaminophen 1 hour prior to the procedure.
  - 3) Provide a pacifier sweetened with sucrose 2 minutes before starting the procedure.
  - 4) Prepare the area by applying an ice pack to the heel for 5 minutes prior to the heel stick.
- \_\_\_\_ 157. A patient undergoing a bladder biopsy with cystoscopy has just been given general anesthesia. Which position should the nurse now place the patient in for the remainder of the procedure?
- 1) Sims'
  - 2) Lithotomy
  - 3) Semirecumbent
  - 4) Supine
- \_\_\_\_ 158. A patient is instructed to prepare for a colonoscopy by drinking 4 liters of GoLYTELY after taking metoclopramide (Reglan) 10 mg by mouth. A nurse should explain that the purpose of the metoclopramide is to:
- 1) Decrease the risk of nausea
  - 2) Help the patient sleep better
  - 3) Increase the laxative effect of the GoLYTELY
  - 4) Improve the contrast for the colonoscopy
- \_\_\_\_ 159. A patient who is about 16 weeks into her first pregnancy is scheduled for blood to be drawn for alpha-fetoprotein (AFP). The patient asks a nurse the reason for this procedure. Which is the best response by the nurse?
- 1) "Abnormal results can mean that the fetus is abnormal and you should have an abortion."
  - 2) "The test identifies maternal abnormalities that can interfere with normal fetal development."
  - 3) "This is a screening test that is used along with other data to monitor fetal development."
  - 4) "You should not worry about this test. It is routine and seldom is abnormal."
- \_\_\_\_ 160. A nurse has just completed venipuncture on a patient and collected a plasma specimen for bilirubin testing. Which of the following special precautions should the nurse take when transporting this specimen to the laboratory?
- 1) Place the specimen in an ice slurry.
  - 2) Put the specimen in a specially padded envelope.
  - 3) Wrap the specimen in foil to protect it from any electromagnetic radiation.
  - 4) Protect the specimen from light.



- \_\_\_\_ 161. A nurse is preparing to obtain a blood specimen from a geriatric patient in an acute care setting. The patient is confused about time and place but responds to name. The patient has been hospitalized for over 1 week, and this nurse has provided care to this patient several times. The patient's armband is taped to the foot of the bed, and the patient is sitting in the chair next to the bed with a family member visiting. Which method should be used by the nurse to confirm this is the correct patient?
- 1) Ask the family member to confirm the patient's identification and compare to the armband on the bed.
  - 2) Compare the requisition form to the armband to confirm the patient's identification using name and room number.
  - 3) Request that another nurse, who knows the patient, replace the armband before the specimen is obtained.
  - 4) State the patient's name and use the armband for additional confirmation using two numeric identifiers.
- \_\_\_\_ 162. A nurse is monitoring a patient who is recovering from moderate sedation with IV midazolam (Versed) and fentanyl administered during an outpatient diagnostic procedure. The nurse notes that the patient's pulse oximetry result has decreased from 94% to 90%. The patient is receiving oxygen by nasal cannula at 3 L/min. After confirming the result, which action should be taken by the nurse first?
- 1) Administer naloxone (Narcan) and/or flumazenil (Romazicon).
  - 2) Call for help from the emergency response team.
  - 3) Instruct the patient to take several deep breaths.
  - 4) Reposition the patient to a side-lying position.
- \_\_\_\_ 163. A patient diagnosed with hypertension is maintained on losartan (Cozaar)—an angiotensin II receptor antagonist. Based on this information, which of the following lab results should a nurse monitor?
- 1) Hemoglobin and hematocrit
  - 2) Serum glucose and sodium
  - 3) Serum potassium and creatinine
  - 4) Urinary sodium and calcium
- \_\_\_\_ 164. A patient with an ileal conduit requires a urine specimen for culture. Which procedure should a nurse use to collect this specimen?
- 1) Cleanse the opening of the urinary pouch with alcohol and then transfer the urine from the pouch into a sterile specimen cup.
  - 2) Collect urine by removing the pouch and performing a sterile catheterization through the stoma.
  - 3) Place the patient in a side-lying position, remove the pouch, cleanse the area around the stoma with povidone-iodine, and collect the urine in a sterile specimen cup.
  - 4) Remove the pouch and replace with a sterile device; once urine has accumulated, remove pouch with urine and send to the lab.
- \_\_\_\_ 165. When preparing a child for a sweat test, the nurse should clean the skin on the:
- 1) Abdomen
  - 2) Anterior chest
  - 3) Forearm and/or thigh
  - 4) Upper left back
- \_\_\_\_ 166. A patient who is in the second trimester of pregnancy reports urinary urgency and nocturia. The urine dipstick results are negative for nitrite and positive for leukocyte esterase. Which orders should the nurse anticipate when reporting this result to the requesting health-care provider?
- 1) Begin cephalexin (Keflex) intravenously.
  - 2) Obtain a clean-catch, midstream urine specimen for culture.

- 3) Obtain a sterile specimen with a straight catheterization.
- 4) Repeat urine dipstick with first morning specimen.

- \_\_\_\_ 167. A mother arrives at the emergency room with her 5-year-old son and explains that she is afraid that her son may have overdosed on acetaminophen. The boy undergoes blood testing and the nurse reviews the results. The nurse knows that any blood level of acetaminophen greater than which of the following constitutes a critical finding?
- 1) 100 mcg/mL
  - 2) 200 mcg/mL
  - 3) 300 mcg/mL
  - 4) 400 mcg/mL
- \_\_\_\_ 168. A nurse is preparing to administer an intradermal tuberculin skin test to a patient. Which question should the nurse ask the patient to ensure that there are no interfering factors or contraindications for this test?
- 1) "Are you currently taking corticosteroids or immunosuppressive drugs?"
  - 2) "Do you have symptoms such as cough, hemoptysis, or weight loss?"
  - 3) "Do you have any history of AIDS?"
  - 4) "Have you recently been exposed to someone with tuberculosis?"
- \_\_\_\_ 169. A postpartum patient who delivered a full-term, healthy neonate has blood drawn for a Kleihauer-Betke test. Based on this information, the nurse should plan care to manage:
- 1) A clotting disorder
  - 2) An infection
  - 3) Down syndrome
  - 4) Rh incompatibility
- \_\_\_\_ 170. A nurse is preparing to obtain a blood specimen from a neonate, who is 3 days old and being treated with phototherapy for hyperbilirubinemia. Which action should be taken by the nurse to ensure that the specimen provides an accurate result?
- 1) Keep the neonate NPO for at least 8 hours.
  - 2) Premedicate the neonate to minimize the stress response of the needlestick.
  - 3) Stimulate the infant prior to obtaining the specimen.
  - 4) Turn off the phototherapy light while drawing the specimen.
- \_\_\_\_ 171. A patient in a community clinic recently learned that a new sexual partner is a carrier for hepatitis B. The patient is concerned about being exposed and requests testing for hepatitis. In addressing this patient's concerns, which question by a nurse is most appropriate?
- 1) "Can you approximate how many times you have had sexual contact with this partner?"
  - 2) "Did you use condoms or spermicidal gel during intercourse?"
  - 3) "How long have you been involved in this relationship?"
  - 4) "Is the relationship that you are in monogamous?"
- \_\_\_\_ 172. A patient's laboratory test results following analysis of a urine sample indicate a nuclear matrix protein (NMP) 22 level of 12 units/mL. This finding indicates which of the following with regards to bladder cancer?
- 1) Indeterminate
  - 2) Negative
  - 3) Borderline
  - 4) Positive
- \_\_\_\_ 173. A patient who is undergoing a diagnostic work-up for possible lactose intolerance has an order for a lactose-tolerance test. To begin the test, the nurse should:
- 1) Administer 50 g of lactose dissolved in a small amount of water.
  - 2) Collect a stool specimen after the patient eats a meal with dairy products.

- 3) Instruct the patient to drink an 8-ounce glass of whole milk.
- 4) Inject 10 mL of 10% lactose solution intravenously.

- \_\_\_\_ 174. A neonate born to a family with a two children who have cystic fibrosis has a sweat test performed shortly after birth. The results are within normal limits. Which interpretation by the nurse is correct?
- 1) Genetic testing is the only reliable method to diagnose cystic fibrosis.
  - 2) Results are inconclusive unless fecal analysis for trypsin also is negative.
  - 3) The test should be repeated when the neonate is older.
  - 4) This child does not have cystic fibrosis.
- \_\_\_\_ 175. Following an outpatient endoscopic retrograde cholangiopancreatography (ERCP), a nurse's first priority should be to monitor the patient for:
- 1) Fever
  - 2) Nausea
  - 3) Respiratory depression
  - 4) Pain
- \_\_\_\_ 176. A nurse is preparing to obtain a capillary blood specimen from a 2-month-old. Which site should the nurse plan to use to draw the blood?
- 1) Dorsal surface of foot
  - 2) Earlobe
  - 3) Fingertip
  - 4) Lateral heel
- \_\_\_\_ 177. A patient's laboratory test results indicate a positive finding for hepatitis C virus (HCV). Because of this infection, the patient is at high risk for developing which of the following conditions?
- 1) Renal disease
  - 2) Cirrhosis
  - 3) Pancreatitis
  - 4) Gastric cancer
- \_\_\_\_ 178. An infant with a history of vomiting has completed a gastroesophageal reflux scan. Which instruction should a nurse give to the infant's parents?
- 1) "It is important to minimize direct contact with the infant for at least 24 hours to avoid overexposure to radioactivity."
  - 2) "This test does not require any special measures now that it is complete. Your health-care provider will follow up with the results."
  - 3) "The infant should take only clear liquids for the first 24 hours. You can advance to formula if there is no vomiting."
  - 4) "You must wear gloves when changing the infant's diapers and wash gloved hands after completing the diaper change and again after removing the gloves."
- \_\_\_\_ 179. An alert and oriented patient, who is to provide a sputum specimen for cytology, has been unable to produce a specimen. A nurse has an order to obtain the specimen by tracheal suction with an in-line trap. Which precaution should the nurse observe when performing this procedure?
- 1) Apply suction for no longer than 10 to 15 seconds.
  - 2) Maintain suction while withdrawing the suction catheter.
  - 3) Place the patient in a supine position.
  - 4) Turn off the oxygen for at least 5 minutes prior to suctioning.
- \_\_\_\_ 180. A middle-aged patient, with a strong family history of early death from occlusive coronary disease, has computed tomography (CT) for cardiac scoring with a score of 210 reported. Based on this score, which patient teaching should the nurse plan?

- 1) Lifestyle modifications to manage weight, promote activity, and control blood lipids
- 2) Preoperative instructions for cardiac bypass surgery
- 3) Preparation for cardiac catheterization and immediate stent placement
- 4) Reinforcement of current lifestyle patterns to maintain a healthy cardiac score

- \_\_\_\_ 181. A needle biopsy of a breast lump shows that a patient has a high HER-2/neu oncoprotein level. Based on this result, the nurse should plan interventions to:
- 1) Assist the patient in coping with a poor prognosis.
  - 2) Make dietary modifications to decrease cancer risk.
  - 3) Promote long-term remission of breast cancer.
  - 4) Refer the patient to a cancer survivors support group.
- \_\_\_\_ 182. A patient's laboratory test results indicate a high level of the human epidermal growth factor receptor 2 (HER-2/neu) oncoprotein. This finding is most associated with which of the following?
- 1) Metastatic breast cancer
  - 2) Leukemia
  - 3) Bladder cancer
  - 4) Colon cancer
- \_\_\_\_ 183. A patient is suspected of having a neuroblastoma. Which test would be most appropriate for confirming this suspicion?
- 1) Homovanillic acid (HVA)
  - 2) 5-Hydroxyindoleacetic acid (5-HIAA)
  - 3) Homocysteine and methylmalonic acid
  - 4) Hexosaminidase A and B
- \_\_\_\_ 184. A patient is scheduled for a prostate sonogram or transrectal ultrasound (TRUS). Prior to the examination, the nurse should instruct the patient to:
- 1) Administer a sodium biphosphate (Fleet) enema.
  - 2) Avoid sexual intercourse for at least 1 week prior to the examination.
  - 3) Remain NPO after midnight.
  - 4) Report for the procedure with a full bladder.
- \_\_\_\_ 185. While transferring a blood specimen from a syringe into a specimen container, a nurse feels a drip that has splashed from the container onto the nurse's face. Which action by the nurse is most appropriate?
- 1) Clean the blood from the face using an alcohol wipe, and do not mention this to anyone.
  - 2) Complete the procedure, clean the blood from the face using an alcohol wipe, and report the incident immediately to employee health.
  - 3) Inform the patient of the exposure, and ask if there is any history of AIDS or hepatitis.
  - 4) Notify the health-care provider to request screening of the patient for potential infections.
- \_\_\_\_ 186. A nurse is assessing a child with a possible ear infection. When inserting an otoscope into the ear of a child, the nurse should hold the child's head steady and:
- 1) Angle the otoscope upward.
  - 2) Direct the otoscope upward toward crown of the head.
  - 3) Move the pinna upward and backward.
  - 4) Pull the pinna down.
- \_\_\_\_ 187. A patient has laboratory results that show gliadin antibodies that are strongly positive for both immunoglobulin A (IgA) and G (IgG). Based on these results, the nurse should instruct the patient to:
- 1) Avoid dairy products and lactose in the diet.
  - 2) Increase intake of B vitamins.
  - 3) Maintain a gluten-free diet.

4) Practice safe sex.

\_\_\_\_ 188. During a precollege physical examination, a student asks a nurse when a young woman should have a pelvic examination with a Papanicolaou (Pap) smear for the first time. Which response by the nurse is correct?

- 1) "Any woman who is sexually active needs a Pap smear annually and anytime a new sexual partner is acquired."
- 2) "Pap smears are recommended beginning with puberty."
- 3) "Decisions regarding the need for and frequency of PAP smears or other cancer screening procedures should be made after consultation between the patient and health-care provider."
- 4) "If there is no family history of endometrial cancer, a woman should not need a Pap smear until after the first child is born, or by age 25 if nulliparous."

\_\_\_\_ 189. A patient needs to undergo testing to assess cardiovascular disease risk. Which test would be most appropriate for this purpose?

- 1) Thyroxine, free
- 2) Transferrin
- 3) Triglycerides
- 4) Thyroid-stimulating hormone (TSH)

### Multiple Response

*Identify one or more choices that best complete the statement or answer the question.*

\_\_\_\_ 1. A patient has just learned that she has human immunodeficiency virus (HIV). The nurse is providing teaching regarding protection against opportunistic infections. Which of the following should the nurse mention? Select all that apply.

- 1) Receive an annual influenza vaccine.
- 2) Receive a hepatitis B vaccine.
- 3) Avoid eating raw foods.
- 4) Stay isolated and avoid physical contact with others.
- 5) Avoid emptying cat litter boxes.

\_\_\_\_ 2. A nurse works in an office in which the physician has obtained a certificate of waiver from a Clinical Laboratory Improvement Amendments (CLIA) program so that the nurse and other practitioners in the office may perform waived tests. Examples of waived tests include which of the following? Select all that apply.

- 1) Dipstick urinalysis
- 2) Blood glucose (on an approved meter)
- 3) Pinworm examinations
- 4) Fecal occult blood
- 5) Wet-mount testing for bacteria

\_\_\_\_ 3. A patient's laboratory test results indicate elevated triglycerides (TGs) levels. The nurse is aware that this finding is consistent with which of the following conditions? Select all that apply.

- 1) Alcoholism
- 2) End-stage liver disease
- 3) Hypertension
- 4) Malnutrition
- 5) Acute myocardial infarction

\_\_\_\_ 4. A nurse is providing care to a patient following a bone biopsy. Which of the following actions should the nurse take? Select all that apply.

- 1) Monitor vital signs and neurological status every 2 hours after the procedure.
- 2) Monitor temperature every 4 hours for 24 hours.
- 3) Observe for delayed allergic reactions.
- 4) Instruct the patient to take ibuprofen for fever.
- 5) Assess for nausea and pain.

- \_\_\_\_\_ 5. A nurse is providing post-test instructions to a patient following thyroid scan. Which of the following should the nurse tell the patient? Select all that apply.
- 1) Drink increased amounts of fluids for 24 to 48 hours.
  - 2) Fast for 8 hours.
  - 3) Avoid breastfeeding for 3 days.
  - 4) Have caregivers wear gloves when discarding urine for the next 24 hours.
  - 5) The radionuclide should be eliminated from the body within 5 to 7 days.
- \_\_\_\_\_ 6. A nurse is caring for a patient who is undergoing a blood transfusion. Soon after the transfusion is begun, the patient complains of chills and fever and becomes anxious. The nurse notes generalized bleeding and soon determines that the patient is having an ABO acute hemolytic transfusion reaction. Which of the following should the nurse do? Select all that apply.
- 1) Immediately stop the transfusion.
  - 2) Maintain the airway and apply oxygen therapy as needed.
  - 3) Administer non-salicylate-containing antipyretics.
  - 4) Administer osmotic and diuretic agents.
  - 5) Administer antihistamines.
- \_\_\_\_\_ 7. A nurse works at a community health clinic that provides screening for people who are at high risk for acquiring a hepatitis B virus (HBV) infection. Which groups are at high risk for acquiring this infection? Select all that apply.
- 1) Communities without water purification
  - 2) Intravenous drug abusers
  - 3) Health-care workers
  - 4) Persons with multiple sex partners
  - 5) Communities with diets high in raw shellfish
- \_\_\_\_\_ 8. A patient has just undergone a bone scan and the results show no bone abnormalities. However, the health-care provider is concerned that the result may be a false negative. Which of the following factors would likely cause a false negative? Select all that apply.
- 1) Multiple myeloma
  - 2) Distended bladder
  - 3) Improper injection of the radionuclide
  - 4) Thyroid cancer
  - 5) Metallic objects within the examination field
- \_\_\_\_\_ 9. A patient's laboratory test results indicate an increased level of vanillylmandelic acid (VMA) in the urine. The nurse is aware that this finding is associated with which of the following conditions? Select all that apply.
- 1) Lymphoma
  - 2) Myeloma
  - 3) Neuroblastoma
  - 4) Ganglioneuroma
  - 5) Pheochromocytoma

- \_\_\_\_\_ 10. A patient's breast biopsy results indicate the results below. Which of them are favorable findings, indicating a lower likelihood of breast cancer, or a higher likelihood of a more manageable type of breast cancer? Select all that apply.
- 1) Abnormal cells or tissues.
  - 2) Majority diploid cell population.
  - 3) High S-phase fraction.
  - 4) Low percentage of Ki67 cells.
  - 5) High percentage of estrogen and progesterone receptors.
- \_\_\_\_\_ 11. A nurse is assisting with a bronchoscopy procedure with a rigid bronchoscope. Which of the following are advantages of the rigid bronchoscope compared with the flexible bronchoscope? Select all that apply.
- 1) It allows visualization of all segments of the bronchial tree.
  - 2) It is better for aspirating large volumes of blood or secretions.
  - 3) It is more effective for removing foreign bodies.
  - 4) It is preferred for most bronchoscopies in children.
  - 5) It is less traumatic to the surrounding tissues.
- \_\_\_\_\_ 12. A patient's laboratory test results indicate a positive finding for hepatitis B virus (HBV). Given this virus's primary modes of transmission, the nurse should be prepared to provide teaching to the patient on which of the following? Select all that apply.
- 1) Risk of sharing needles
  - 2) Avoiding consumption of raw shellfish
  - 3) Importance of using condoms during sex
  - 4) Danger of a baby acquiring the infection from the mother at birth
  - 5) Avoiding potentially contaminated water
- \_\_\_\_\_ 13. A nurse is providing instructions to a patient regarding care of a Holter monitor, which the patient will be wearing for the next 2 days. Which of the following should the nurse tell the patient? Select all that apply.
- 1) "Wear loose-fitting clothing over the electrodes and do not disturb or disconnect them."
  - 2) "Avoid contact with electrical devices, such as a shaver, that can affect the strip tracings."
  - 3) "Refrain from physical activity, such as walking or climbing stairs, during the test."
  - 4) "Press the button on the monitor when you feel any chest pain or discomfort."
  - 5) "If you see a light blinking on the monitor, remove the device and electrodes."
- \_\_\_\_\_ 14. A patient is preparing to undergo liver biopsy. Which of the following conditions can be potentially diagnosed by this procedure? Select all that apply.
- 1) Goodpasture's syndrome
  - 2) Celiac disease
  - 3) Cirrhosis
  - 4) Hepatitis
  - 5) Cancer
- \_\_\_\_\_ 15. A patient's bone marrow biopsy test results indicate a myeloid-to-erythrocyte ratio (M:E) of 6:1. Which of the following conditions are most likely associated with these findings? Select all that apply.
- 1) Bone marrow failure
  - 2) Infection
  - 3) Anemia
  - 4) Myeloid leukemia
  - 5) Hepatic disease
- \_\_\_\_\_ 16. A nurse is preparing a 7-year-old to have his leg x-rayed. To communicate with this patient effectively and in a developmentally appropriate way, the nurse should do which of the following? Select all that apply.

- 1) Clearly define and reinforce behavior limits.
- 2) Explain procedures in advance, using simple explanations and correct terminology.
- 3) Recognize that children this age like to be treated as an adult.
- 4) Supplement information with rationale.
- 5) Allow the child to have some control.

- \_\_\_\_\_ 17. A nurse is preparing a patient to undergo hysterosalpingography. This test is indicated for which of the following? Select all that apply.
- 1) Assess the lie of the fetus in the third trimester.
  - 2) Assist in the investigation of abnormal uterine bleeding, amenorrhea, or recurrent abortion.
  - 3) Confirm the presence of fistulas, adhesions, polyps, or pelvic masses.
  - 4) Evaluate the patency of the fallopian tubes.
  - 5) Confirm uterine abnormalities such as congenital malformation.
- \_\_\_\_\_ 18. A nurse is advising a patient with hypertension on natural products that may affect his condition adversely. Which of the following should the nurse mention? Select all that apply.
- 1) Ephedra
  - 2) Ginseng
  - 3) Cinnamon
  - 4) Garlic
  - 5) Nutmeg
- \_\_\_\_\_ 19. A nurse is assisting with venography of the lower extremities. The nurse should tell the patient to expect which of the following sensations during and after injection of the contrast medium? Select all that apply.
- 1) Burning and flushing
  - 2) Urge to cough
  - 3) Dizziness
  - 4) Salty or metallic taste in the mouth
  - 5) Urge to urinate
- \_\_\_\_\_ 20. A nurse is assisting in a blood transfusion and notes that the patient has developed a mild fever. Which of the following interventions would be appropriate to take at this time? Select all that apply.
- 1) Slow the rate of infusion.
  - 2) Compare patient identification with transfusion requisition and blood bag label.
  - 3) Cease the infusion.
  - 4) Administer epinephrine, as ordered.
  - 5) Administer mannitol.
- \_\_\_\_\_ 21. A patient's laboratory test results indicate an elevated total triiodothyronine level. This finding is consistent with which of the following conditions? Select all that apply.
- 1) Hypothyroidism
  - 2) Pregnancy
  - 3) Malnutrition
  - 4) Early thyroid failure
  - 5) Iodine-deficiency goiter
- \_\_\_\_\_ 22. A patient has just undergone a bone scan and the results show no bone abnormalities. However, the health-care provider is concerned that the result may be a false negative. Which of the following factors would likely cause a false negative? Select all that apply.
- 1) Multiple myeloma
  - 2) Distended bladder



- 3) Improper injection of the radionuclide
- 4) Thyroid cancer
- 5) Metallic objects within the examination field

- \_\_\_\_\_ 23. A nurse is performing a 24-hour urine collection for  $\beta$ 2-microglobulin testing. Which of the following actions should the nurse perform? Select all that apply.
- 1) Begin the test between 6 and 8 a.m.
  - 2) Gather together a clean 3-L urine specimen container, toilet-mounted collection device, and a plastic bag.
  - 3) Collect the first voiding and add to the collection device.
  - 4) Keep the specimen at room temperature throughout the entire collection period.
  - 5) Record all urinary output for 24 hours.
- \_\_\_\_\_ 24. A nurse is assisting with an intestinal biopsy. Which of the following are critical findings that should be communicated immediately to the requesting health-care provider? Select all that apply.
- 1) Identification of lactose deficiency
  - 2) Assessment of clear margins after tissue excision
  - 3) Classification or grading of tumor
  - 4) Identification of normal tissue and cells
  - 5) Identification of malignancy
- \_\_\_\_\_ 25. A nurse is undergoing bioterrorism preparedness training and is learning about toxins and infectious agents and how the Centers for Disease Control and Prevention (CDC) categorizes them according to the risk each poses to the public. Which of the following agents are in category A, the highest risk agents? Select all that apply.
- 1) Anthrax
  - 2) Ricin
  - 3) Botulism
  - 4) Smallpox
  - 5) Plague
- \_\_\_\_\_ 26. A nurse is providing instructions to a patient who will be undergoing testing for urine vanillylmandelic acid (VMA). Which of the following should the nurse tell this patient? Select all that apply.
- 1) Abstain from smoking tobacco for 24 hours before testing.
  - 2) Consume foods high in amines for 48 hours before testing.
  - 3) Avoid consuming foods or beverages high in caffeine for 48 hours before testing.
  - 4) Avoid excessive exercise and stress during the 24-hour collection of urine.
  - 5) Take aspirin daily for 2 weeks before testing.
- \_\_\_\_\_ 27. A patient is scheduled to undergo a barium enema. Which of the following are contraindications for this procedure that the nurse should take into account? Select all that apply.
- 1) Suspected pregnancy
  - 2) Rectal bleeding
  - 3) Allergy to contrast medium
  - 4) Lack of cooperation
  - 5) Mucus in feces
- \_\_\_\_\_ 28. A nurse is preparing a patient to undergo hysteroscopy. Which of the following interventions should the nurse make? Select all that apply.
- 1) Instruct the patient to arrive at the test with a full bladder.
  - 2) Record baseline vital signs.
  - 3) Place the patient in the lithotomy position.

- 4) Cleanse the vaginal area and cover with a sterile drape.
- 5) Monitor the patient for complications related to the procedure.

- \_\_\_\_\_ 29. A nurse is assessing a patient for suitability to undergo vertebroplasty, a procedure in which an orthopedic cement is injected into the fracture site of a vertebrae to repair it and relieve pain related to vertebral compression. Which of the following conditions would be contraindications for this procedure? Select all that apply.
- 1) Osteoporosis
  - 2) Renal failure
  - 3) Older age
  - 4) Hemophilia
  - 5) Pain that is primarily radicular
- \_\_\_\_\_ 30. A patient is undergoing a kidney biopsy. Which of the following conditions can this test produce positive findings for? Select all that apply.
- 1) Celiac disease
  - 2) Acute poststreptococcal glomerulonephritis
  - 3) Cancer
  - 4) Nephrotic syndrome
  - 5) Lactose deficiency
- \_\_\_\_\_ 31. A patient's laboratory test results indicate a positive finding for human leukocyte antigen B27 (HLA-B27). Which of the following conditions are associated with this finding? Select all that apply.
- 1) Ankylosing spondylitis
  - 2) Reiter's syndrome
  - 3) Juvenile rheumatoid arthritis
  - 4) Osteoarthritis
  - 5) Psoriatic arthritis
- \_\_\_\_\_ 32. A patient has just undergone a bone scan and the results show no bone abnormalities. However, the health-care provider is concerned that the result may be a false negative. Which of the following factors would likely cause a false negative? Select all that apply.
- 1) Multiple myeloma
  - 2) Distended bladder
  - 3) Improper injection of the radionuclide
  - 4) Thyroid cancer
  - 5) Metallic objects within the examination field
- \_\_\_\_\_ 33. A nurse is undergoing bioterrorism preparedness training and is learning about the risk of certain agents spreading throughout a population. Which of the following can be transmitted directly from person to person? Select all that apply.
- 1) Anthrax
  - 2) Botulism
  - 3) Tularemia
  - 4) Smallpox
  - 5) Marburg
- \_\_\_\_\_ 34. A patient's laboratory results indicate an insufficient total testosterone level. The nurse should expect to see which of the following signs and symptoms in this patient? Select all that apply.
- 1) Delayed puberty
  - 2) Poor development of muscle mass
  - 3) Excessive body hair

- 4) Gynecomastia
- 5) Arms and legs that grow slower than the trunk

- \_\_\_\_\_ 35. A patient's laboratory test results indicate an increased level of human chorionic gonadotropin (HCG). The nurse should recognize that this finding is associated with which of the following? Select all that apply.
- 1) Ectopic pregnancy
  - 2) Pregnancy
  - 3) Intrauterine fetal demise
  - 4) Choriocarcinoma
  - 5) Spontaneous abortion
- \_\_\_\_\_ 36. A nurse is providing post-test instructions to an older patient who has just undergone a barium swallow. Which of the following directions should the nurse give this patient? Select all that apply.
- 1) Stools will be black for 2 or 3 days.
  - 2) Take a mild laxative daily until the stool is back to normal color.
  - 3) Resume normal diet, as directed by the health-care provider.
  - 4) Decrease fluid intake.
  - 5) Drink electrolyte fluids.
- \_\_\_\_\_ 37. A patient is being considered for blood pool imaging. Which of the following conditions would be contraindications for this procedure? Select all that apply.
- 1) Pregnancy
  - 2) Cardiac hypertrophy
  - 3) Anginal pain at rest
  - 4) Suspected myocardial infarction
  - 5) Severely atherosclerotic coronary vessels
- \_\_\_\_\_ 38. A nurse is providing instructions to a patient who is scheduled to have a barium enema at his next appointment. Which of the following should the nurse mention? Select all that apply.
- 1) Some discomfort and pain may be experienced during the procedure.
  - 2) Eat a low-residue diet for several days before the procedure.
  - 3) Consume only clear fluids the morning of the test.
  - 4) Fast and restrict fluids for 24 hours after the procedure.
  - 5) A laxative and cleansing enema may be needed the day before the procedure.
- \_\_\_\_\_ 39. A patient is undergoing chorionic villus biopsy. Which of the following conditions can this test detect and assist in diagnosing? Select all that apply.
- 1) Neural tube defect
  - 2) Cystic fibrosis
  - 3) Sickle cell anemia
  - 4) Cervical cancer
  - 5) Down syndrome
- \_\_\_\_\_ 40. A nurse checks a hospital's supply of donor blood and finds ample units of type A positive. Patients with which of the following blood types can receive type A positive blood? Select all that apply.
- 1) O positive
  - 2) O negative
  - 3) B positive
  - 4) A positive
  - 5) AB positive

- \_\_\_\_\_ 41. A patient has just undergone a bone scan and the results show no bone abnormalities. However, the health-care provider is concerned that the result may be a false negative. Which of the following factors would likely cause a false negative? Select all that apply.
- 1) Multiple myeloma
  - 2) Distended bladder
  - 3) Improper injection of the radionuclide
  - 4) Thyroid cancer
  - 5) Metallic objects within the examination field
- \_\_\_\_\_ 42. A patient's laboratory test results indicate a positive finding for *Helicobacter pylori* antibody. Besides indicating an *H. pylori* infection, this finding is strongly associated with which of the following conditions? Select all that apply.
- 1) Cirrhosis
  - 2) Duodenal ulcer
  - 3) Gastric cancer
  - 4) Hemolytic anemia
  - 5) Pancreatitis
- \_\_\_\_\_ 43. A nurse is teaching a refresher class on infection control to other nurses in the hospital. The nurse should mention that Standard Precautions are required any time a nurse is expecting to come into contact with which of the following? Select all that apply.
- 1) Blood
  - 2) Sweat
  - 3) Skin
  - 4) Saliva
  - 5) Mucous membranes
- \_\_\_\_\_ 44. A patient has just undergone a bone scan and the results show no bone abnormalities. However, the health-care provider is concerned that the result may be a false negative. Which of the following factors would likely cause a false negative? Select all that apply.
- 1) Multiple myeloma
  - 2) Distended bladder
  - 3) Improper injection of the radionuclide
  - 4) Thyroid cancer
  - 5) Metallic objects within the examination field
- \_\_\_\_\_ 45. A nurse is providing teaching to a patient who lives in an area where there is a high risk for yellow fever, a viral hemorrhagic fever (VHF). Which of the following preventive measures should the nurse recommend to the patient for this infection? Select all that apply.
- 1) Vaccination
  - 2) Staying indoors at certain times during the day
  - 3) Using repellents and mosquito netting
  - 4) Frequent handwashing
  - 5) Avoidance of infected persons
- \_\_\_\_\_ 46. A nurse is assisting with computed tomography (CT) scan of the brain. Which of the following would constitute a critical finding that the nurse should report to the requesting health-care provider immediately? Select all that apply.
- 1) Cysts
  - 2) Abscess
  - 3) Aneurysm
  - 4) Hematoma

5) Infarction

- \_\_\_\_\_ 47. A patient's bone marrow laboratory test results indicate increased lymphocytes. Which of the following conditions are most likely associated with these findings?
- 1) Aplastic anemia
  - 2) Lymphatic leukemia
  - 3) Lymphomas
  - 4) Acute myeloblastic leukemia
  - 5) Lymphosarcoma
- \_\_\_\_\_ 48. A nurse is preparing a patient to undergo hysteroscopy. This test is indicated for which of the following? Select all that apply.
- 1) Confirm the presence of uterine fibroids.
  - 2) Investigate abnormal uterine bleeding.
  - 3) Assist in the removal of uterine polyps.
  - 4) Evaluate the patency of the fallopian tubes.
  - 5) Assess the adequacy of surgical tubal ligation and reconstructive surgery.
- \_\_\_\_\_ 49. A patient's laboratory test results indicate decreased levels of vitamin B<sub>12</sub> in the blood. The nurse knows that this finding is consistent with which of the following conditions? Select all that apply.
- 1) Chronic renal failure
  - 2) Crohn's disease
  - 3) Dietary deficiency
  - 4) Pernicious anemia
  - 5) Diabetes

### Completion

*Complete each statement.*

1. A patient with blood type AB positive requires an emergency blood transfusion, but no units of his own blood type are available. Put the following alternative blood types in order of preference, from the most to the least preferred, for being administered to this patient.  
\_\_\_\_\_ 1. B positive  
\_\_\_\_\_ 2. A negative  
\_\_\_\_\_ 3. AB negative  
\_\_\_\_\_ 4. B negative  
\_\_\_\_\_ 5. A positive  
\_\_\_\_\_ 6. O positive  
\_\_\_\_\_ 7. O negative
2. Below are the steps for performing a visual fields test. Put them in the correct order.  
\_\_\_\_\_ 1. Have the patient signal when the object enters his or her visual field.  
\_\_\_\_\_ 2. Ask the patient to place the chin in the chin rest and gently press the forehead against the support bar.  
\_\_\_\_\_ 3. Move an object toward the patient's visual field.  
\_\_\_\_\_ 4. Seat the patient 3 feet away from the tangent screen.  
\_\_\_\_\_ 5. Ask the patient to stare at the disk on the screen.  
\_\_\_\_\_ 6. Cover the eye that is not being tested.
3. Below are the steps for applying a Holter monitor to a patient. Put them in the correct order.  
\_\_\_\_\_ 1. Apply electropaste to the skin sites to provide conduction.

- \_\_\_\_\_ 2. Place the patient in a supine position.
  - \_\_\_\_\_ 3. Apply the electrodes to the proper sites on the chest and ensure that they are secure.
  - \_\_\_\_\_ 4. Check the monitor for paper supply and battery, insert the tape, and turn on the recorder.
  - \_\_\_\_\_ 5. Tape all wires to the chest, and place the belt or shoulder strap in the proper position.
  - \_\_\_\_\_ 6. Expose the chest and use clippers to remove hair from the site if appropriate.
  - \_\_\_\_\_ 7. Attach the electrode cable to the monitor and the lead wires to the electrodes.
  - \_\_\_\_\_ 8. Cleanse the chest thoroughly with alcohol and rub until red.
4. Below are the steps for performing lower extremities studies using venography. Put them in the correct order.
- \_\_\_\_\_ 1. Cleanse the selected area, and cover with a sterile drape.
  - \_\_\_\_\_ 2. A needle is inserted at the site.
  - \_\_\_\_\_ 3. Place the patient in the supine position on an examination table.
  - \_\_\_\_\_ 4. A rapid series of images is taken during and after the filling of the vessels to be examined.
  - \_\_\_\_\_ 5. The contrast medium is injected.
  - \_\_\_\_\_ 6. A local anesthetic is injected at the site.
5. Below are the steps for performing a fiberoptic bronchoscopy. Put them in the correct order.
- \_\_\_\_\_ 1. Provide the patient with an emesis basin and encourage spitting out saliva.
  - \_\_\_\_\_ 2. The fiberoptic scope is introduced through the nose.
  - \_\_\_\_\_ 3. Spray the tongue and oropharynx with local anesthetic.
  - \_\_\_\_\_ 4. Place the patient in a sitting position.
  - \_\_\_\_\_ 5. The lungs are visually inspected and tissue samples are collected.
  - \_\_\_\_\_ 6. Place the patient in a supine position.
6. Below are the steps involved in a needle kidney biopsy. Put them in the correct order.
- \_\_\_\_\_ 1. Direct the patient to take slow deep breaths when the local anesthetic is injected.
  - \_\_\_\_\_ 2. Place a sandbag under the patient's abdomen to aid in moving the kidneys to the desired position.
  - \_\_\_\_\_ 3. The biopsy needle is inserted and rotated to obtain a core of renal tissue.
  - \_\_\_\_\_ 4. Instruct the patient to take a deep breath, exhale forcefully, and hold the breath.
7. Below are interventions used to screen for, diagnose, and treat cervical cancer. Put them in the correct chronological order, from the earliest to the latest.
- \_\_\_\_\_ 1. Punch biopsy
  - \_\_\_\_\_ 2. Cone biopsy
  - \_\_\_\_\_ 3. Papanicolaou (Pap) smear
  - \_\_\_\_\_ 4. Loop electrosurgical excision procedure (LEEP) for identified abnormal tissue
8. Below are the steps for blood pool imaging. Put them in the correct order.
- \_\_\_\_\_ 1. Administer the radionuclide.
  - \_\_\_\_\_ 2. Remove the IV catheter.
  - \_\_\_\_\_ 3. Place the patient in the supine position on the scanning table.
  - \_\_\_\_\_ 4. Apply a pressure dressing over the puncture site.
  - \_\_\_\_\_ 5. Scan the heart over the entire cardiac cycle.
  - \_\_\_\_\_ 6. Expose the chest and attach the electrocardiogram (ECG) leads.

## Test 2 Answer Section

### MULTIPLE CHOICE

1. ANS: 2

Feedback: Serum aldosterone level is of little significance unless plasma renin activity is measured simultaneously. A potassium level should also be drawn since hypokalemia is a criterion for considering a diagnosis of Addison's disease.

Page: 29

Monograph: Aldosterone

Content Area: Diagnostic Tests

Integrated Processes: Nursing Process – Planning

Client Need: Reduction of Risk Potential

Cognitive Level: Application

Concept: Metabolism

PTS: 1                      CON: Metabolism

2. ANS: 2

Feedback: The nurse ensures correct identification of the specimens collected by positively identifying the patient before starting the sample collection and then immediately affixing the label with patient identification, time collected, and nurse's initials.

Page: 1634

Monograph: Appendix A – Specimen Collection

Content Area: Diagnostic Tests

Integrated Processes: Communication and Documentation

Client Need: Reduction of Risk Potential

Cognitive Level: Application

Concept: Safety

PTS: 1                      CON: Safety

3. ANS: 2

Feedback: A high-protein intake may contribute to casts in the urine; not a low-protein, high-carbohydrate diet.

Page: 1564

Monograph: Urinalysis

Content Area: Health Screening

Integrated Processes: Nursing Process – Analysis

Client Need: Health Promotion and Maintenance

Cognitive Level: Analysis

Concept: Sleep, Rest, and Activity

PTS: 1                      CON: Sleep, Rest, and Activity

4. ANS: 3

Feedback: Since persistent vomiting results in the loss of hydrogen ions, the nurse should anticipate metabolic alkalosis with pH 7.47 (increased), PCO<sub>2</sub> 44 mm Hg (normal but increasing to compensate), and HCO<sub>3</sub> 30 mEq (increased).

Page: 293

Monograph: Blood Gases

Content Area: Diagnostic Tests

Integrated Processes: Nursing Process – Assessment

Client Need: Reduction of Risk Potential

Cognitive Level: Analysis

Concept: pH Regulation

PTS: 1                      CON: pH Regulation

5. ANS: 4

Feedback: *Toxoplasma* antibody testing is used to assess for a past or present toxoplasmosis infection—a severe, generalized granulomatous central nervous system disease caused by a protozoan—and to assess for the presence of antibodies. Thyroglobulin testing is used to evaluate thyroid gland function related to disorders such as tumor, inflammation, structural damage, and cancer. Thyroid-binding inhibitory immunoglobulin testing is used to assist in diagnosing Graves' disease, which is related to thyroid function. Thyroxine-binding globulin testing is used to evaluate thyroid hormone levels related to deficiency or excess to assist in diagnosing disorders such as hyperthyroidism and hypothyroidism.

Heading: Toxoplasma Antibody

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Infection

Page: 1445

Difficulty: Moderate

PTS: 1                      CON: Infection

6. ANS: 2

Feedback: Haptoglobin testing is used to assist in evaluating for intravascular hemolysis related to transfusion reactions, chronic liver disease, hemolytic anemias, and tissue inflammation or destruction. Ham's test for PNH is used to assist in diagnosing a rare condition called PNH, wherein red blood cells undergo lysis during and after sleep, with hemoglobin excreted in the urine. Hemoglobin electrophoresis is used to assist in evaluating hemolytic anemias, identifying hemoglobin variants, and diagnosing thalassemias and sickle cell disease. Hemosiderin testing is used to assist in investigating recent intravascular hemolysis and to assist in the diagnosis of unexplained anemias, hemochromatosis, and renal tube damage.

Heading: Haptoglobin

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Hematological Regulation

Page: 892

Difficulty: Moderate

PTS: 1                      CON: Hematological Regulation

7. ANS: 1



Feedback: To collect the specimen, the nurse should clean the catheter sample port with alcohol, aspirate the required amount of urine, and transfer the urine to a specimen cup.

Page: 1568

Monograph: Urinalysis

Content Area: Diagnostic Tests

Integrated Processes: Nursing Process – Planning

Client Need: Reduction of Risk Potential

Cognitive Level: Application

Concept: Urinary Elimination

PTS: 1                    CON: Urinary Elimination

8. ANS: 3

Feedback: Despite the patient's statement, the nurse should confirm that there is a negative pregnancy test to verify that the patient is not pregnant. An adolescent may be reluctant to provide information regarding sexual activity if a parent is present.

Page: 992

Monograph: Intravenous Pyelography

Content Area: Diagnostic Tests

Integrated Processes: Nursing Process – Planning

Client Need: Reduction of Risk Potential

Cognitive Level: Application

Concept: Urinary Elimination

PTS: 1                    CON: Urinary Elimination

9. ANS: 1

Feedback: The nurse should instruct the patient to stop medications, such as clopidogrel bisulfate (Plavix), that increase risk of bleeding 1 week before an invasive procedure based on medical provider recommendations.

Page: 1361

Monograph: Renogram

Content Area: Expected Actions/Outcomes

Integrated Processes: Nursing Process – Planning

Client Need: Pharmacological and Parenteral Therapies

Cognitive Level: Application

Concept: Hematologic Regulation

PTS: 1                    CON: Hematologic Regulation

10. ANS: 4

Feedback: Drugs that decrease PSA levels include buserelin, dutasteride, finasteride, and flutamide.

Page: 1307

Monograph: Prostate-Specific Antigen

Content Area: Diagnostic Tests

Integrated Processes: Nursing Process – Planning

Client Need: Reduction of Risk Potential

Cognitive Level: Application

Concept: Cellular Regulation

- PTS: 1                    CON: Cellular Regulation  
11. ANS: 1  
Feedback: The nurse should place the patient in a lithotomy position on the fluoroscopy table.

Heading: Hysterosalpingography  
Integrated Processes: Nursing Process  
Client Need: Physiological Integrity: Basic Care and Comfort  
Cognitive Level: Application [Applying]  
Concept: Female Reproduction  
Page: 950  
Difficulty: Easy

- PTS: 1                    CON: Female Reproduction  
12. ANS: 4  
Feedback: TSH hormone testing is used to evaluate thyroid gland function related to the primary cause of hypothyroidism and to assess for congenital disorders, tumor, cancer, and inflammation. Free thyroxine testing is used as a complementary laboratory test in evaluating thyroid hormone levels related to deficiency or excess to assist in diagnosing hyperthyroidism and hypothyroidism when TSH levels alone provide insufficient information. Transferrin testing is used to assess circulating iron levels related to dietary intake to assist in diagnosing disorders such as iron-deficiency anemia or hemochromatosis. Triglycerides testing is used to evaluate triglyceride levels to assess cardiovascular disease risk and evaluate the effectiveness of therapeutic interventions.

Heading: Thyroid-Stimulating Hormone  
Integrated Processes: Nursing Process  
Client Need: Physiological Integrity: Reduction of Risk Potential  
Cognitive Level: Application [Applying]  
Concept: Metabolism  
Page: 1431  
Difficulty: Moderate

- PTS: 1                    CON: Metabolism  
13. ANS: 4  
Feedback: Carotid Doppler provides a two-dimensional image of the carotid arteries to diagnose stenosis or atherosclerosis that impairs flow to the brain by measuring the amplitude and waveform of the carotid pulse.

Page: 1481  
Monograph: Ultrasound, Arterial Doppler, Carotid Studies  
Content Area: Diagnostic Tests  
Integrated Processes: Communication and Documentation  
Client Need: Reduction of Risk Potential  
Cognitive Level: Application  
Concept: Perfusion

- PTS: 1                    CON: Perfusion  
14. ANS: 2  
Feedback: The nurse should identify a history of asthma as a possible contraindication since dipyridamole can induce bronchospasm. Alternative pharmacological agents, such as dobutamine or adenosine, may be used for these patients.

Page: 1155

Monograph: Myocardial Perfusion Heart Scan

Content Area: Diagnostic Tests

Integrated Processes: Nursing Process – Assessment

Client Need: Reduction of Risk Potential

Cognitive Level: Analysis

Concept: Oxygenation

PTS: 1                    CON: Oxygenation

15. ANS: 1

Feedback: The nurse should anticipate a chest x-ray to ensure that pneumothorax has not occurred during the procedure.

Page: 1255

Monograph: Pleural Fluid Analysis

Content Area: Diagnostic Tests

Integrated Processes: Nursing Process – Planning

Client Need: Reduction of Risk Potential

Cognitive Level: Application

Concept: Oxygenation

PTS: 1                    CON: Oxygenation

16. ANS: 1

Feedback: This scan requires the administration of a radionuclide that will be excreted within 6 to 24 hours. The nurse should instruct the patient to flush the toilet immediately after each void and to wash the hands thoroughly with soap and water following each voiding for 24 hours.

Page: 847

Monograph: Gastrointestinal Blood Loss Scan

Content Area: Diagnostic Tests

Integrated Processes: Teaching and Learning

Client Need: Reduction of Risk Potential

Cognitive Level: Application

Concept: Digestion

PTS: 1                    CON: Digestion

17. ANS: 1

Feedback: Place the patient in a lithotomy or side-lying position and drape for privacy

Page: 654

Monograph: Culture, Bacterial, Anal/Genital, Ear, Eye, Skin, and Wound

Content Area: Diagnostic Tests

Integrated Processes: Nursing Process – Implementation

Client Need: Reduction of Risk Potential

Cognitive Level: Application

Concept: Infection

PTS: 1                    CON: Infection

18. ANS: 4

Feedback: National Patient Safety Goals require a time-out with confirmation of side and site prior to initiation of any invasive procedure.

Page: 219

Monograph: Biopsy, Bone

Content Area: Error Prevention

Integrated Processes: Nursing Process – Implementation

Client Need: Safety and Infection Control

Cognitive Level: Application

Concept: Safety

PTS: 1                    CON: Safety

19. ANS: 2

Feedback: The nurse should immediately place the specimen in an ice slurry ready to transport to ensure the most accurate results. The specimen should be analyzed as soon as possible; thus another staff member may be needed to either maintain pressure on the venipuncture site and/or deliver or process the specimen.

Page: 305

Monograph: Blood Gases

Content Area: Diagnostic Tests

Integrated Processes: Nursing Process – Planning

Client Need: Reduction of Risk Potential

Cognitive Level: Knowledge

Concept: pH Regulation

PTS: 1                    CON: pH Regulation

20. ANS: 3

Feedback: The nurse should identify pulse oximetry as likely to be inaccurate since elevated methemoglobin interferes with light waves that are used to obtain the pulse oximetry measurement.

Page: Davis's Lab & Dx Test Handbook Library: Methemoglobin

Monograph: Methemoglobin

Content Area: Diagnostic Tests

Integrated Processes: Nursing Process – Planning

Client Need: Reduction of Risk Potential

Cognitive Level: Application

Concept: Perfusion

PTS: 1                    CON: Perfusion

21. ANS: 1

Feedback: The nurse should relate the history of gastric reflux managed by medication as a risk factor for osteoporosis. Excessive use of antacids containing aluminum can inhibit phosphate absorption and contribute to the demineralization of bone.

Page: 322

Monograph: Bone Mineral Densitometry

Content Area: Nutrition and Oral Hydration

Integrated Processes: Nursing Process – Assessment

Client Need: Basic Care and Comfort

Cognitive Level: Application

Concept: Mobility

PTS: 1                    CON: Mobility

22. ANS: 3

Feedback: The nurse should explain that the purpose of pachymetry is to measure the thickness of the cornea since studies have shown a correlation between increased risks of glaucoma and decreased corneal thickness.

Page: 1209

Monograph: Pachymetry

Content Area: Diagnostic Tests

Integrated Processes: Teaching and Learning

Client Need: Reduction of Risk Potential

Cognitive Level: Application

Concept: Sensory Perception

PTS: 1                    CON: Sensory Perception

23. ANS: 4

Feedback: The nurse should explain that gastric acid samples are collected by insertion of a nasogastric tube into the stomach.

Page: DavisPlus: Davis's Lab & Dx Test Handbook Library: Gastric and Gastric Acide Stimulation Test

Monograph: Gastric Analysis and Gastric Acid Stimulation Test

Content Area: Diagnostic Tests

Integrated Processes: Communication and Documentation

Client Need: Reduction of Risk Potential

Cognitive Level: Application

Concept: Digestion

PTS: 1                    CON: Digestion

24. ANS: 1

Feedback: Peak secretion of ACTH is early morning, so the best time for this test is 0600–0800.

Page: 13

Monograph: Adrenocorticotrophic Hormone (and Challenge Tests)

Content Area: Diagnostic Tests

Integrated Processes: Nursing Process – Planning

Client Need: Reduction of Risk Potential

Cognitive Level: Application

Concept: Metabolism

PTS: 1                    CON: Metabolism

25. ANS: 1

Feedback: The nurse should plan patient education to promote gastric function through dietary measures, such as eating small, frequent meals that are low fat and low fiber.

Page: DavisPlus: Davis's Lab & Dx Test Handbook Library: Gastric and Gastric Acide Stimulation Test

Monograph: Gastric Analysis and Gastric Acid Stimulation Test

Content Area: Diagnostic Tests

Integrated Processes: Communication and Documentation

Client Need: Reduction of Risk Potential

Cognitive Level: Application  
Concept: Digestion

PTS: 1                    CON: Digestion

26. ANS: 2

Feedback: The nurse should instruct the patient to avoid a diet high in amines by limiting foods such as bananas, beer, aged cheese, chocolate, and coffee. The patient should also be advised to avoid smoking.

Page: 376

Monograph: Catecholamines, Blood and Urine

Content Area: Diagnostic Tests

Integrated Processes: Teaching and Learning

Client Need: Reduction of Risk Potential

Cognitive Level: Application

Concept: Cellular Regulation

PTS: 1                    CON: Cellular Regulation

27. ANS: 3

Feedback: After a delay of 2 to 3 hours to allow the radionuclide to be taken up by the bones, multiple images are obtained over the complete skeleton.

Heading: Bone Scan

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Mobility

Page: 326

Difficulty: Moderate

PTS: 1                    CON: Mobility

28. ANS: 2

Feedback: The nursing diagnosis of “risk for injury, bleeding, hematoma, or infection related to venipuncture” is the most critical because injury to the child that could occur is a greater concern than the child’s anxiety and fear, pain, or risk for impaired skin integrity.

Heading: Appendix D: Potential Nursing Diagnoses Associated with Laboratory and Diagnostic Testing

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Analysis [Analyzing]

Concept: Trauma

Page: App D

Difficulty: Moderate

PTS: 1                    CON: Trauma

29. ANS: 4

Feedback: Testing of troponins I and T is used to assist in evaluating myocardial muscle damage related to disorders such as myocardial infarction. Free thyroxine testing is used as a tool to evaluate thyroid function when TSH levels alone provide insufficient information. Free triiodothyronine testing is used as a complementary adjunct to evaluate thyroid hormone levels primarily related to hyperthyroidism and to assess causes of hypothyroidism. TSI testing is used to differentiate between antibodies that stimulate or inhibit thyroid hormone production related to disorders such as Graves' disease.

Page: 1464

Heading: Troponins I and T

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Perfusion

Difficulty: Moderate

PTS: 1                    CON: Perfusion

30. ANS: 3

Feedback: The nurse should observe for signs and symptoms of respiratory acidosis since the patient's pH is decreased and PCO<sub>2</sub> is increased. The low PO<sub>2</sub> also supports the respiratory origin of this acidosis.

Page: 297

Monograph: Blood Gases

Content Area: Alterations in Body Systems

Integrated Processes: Nursing Process – Assessment

Client Need: Physiological Adaptation

Cognitive Level: Analysis

Concept: pH Regulation

PTS: 1                    CON: pH Regulation

31. ANS: 4

Feedback: The normal arterial oxygen saturation for an adult is 95% to 99%.

Heading: Blood Gases

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Oxygenation

Page: 295

Difficulty: Moderate

PTS: 1                    CON: Oxygenation

32. ANS: 2

Feedback: The nurse should place the tissue samples in a properly labeled specimen container containing formalin solution and promptly transport the specimen to the laboratory for processing and analysis. Heparin and EDTA are additives placed in blood collection tubes. Saline would not be appropriate to place a thyroid tissue specimen in.

Heading: Biopsy, Thyroid

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Cellular Regulation

Page: 275

Difficulty: Moderate

PTS: 1                    CON: Cellular Regulation

33. ANS: 3

Feedback: The nurse should instruct the patient to remain supine or in an upright position per health-care provider order. The upright position can lead to increased levels of aldosterone secretion, so one position should be maintained for at least 2 hours, and this should be communicated to the lab so it can be included in the aldosterone report.

Page: 33

Monograph: Aldosterone

Content Area: Diagnostic Tests

Integrated Processes: Nursing Process – Planning

Client Need: Reduction of Risk Potential

Cognitive Level: Application

Concept: Metabolism

PTS: 1                    CON: Metabolism

34. ANS: 2

Feedback: The test requires fine-needle or open biopsy of the breast.

Page: 227

Monograph: Biopsy, Breast

Content Area: Diagnostic Tests

Integrated Processes: Teaching and Learning

Client Need: Reduction of Risk Potential

Cognitive Level: Application

Concept: Cellular Regulation

PTS: 1                    CON: Cellular Regulation

35. ANS: 2

Feedback: The nurse should anticipate that an initial screening for anemia will include a serum ferritin level since this test is a more specific and sensitive test for diagnosing iron-deficiency anemia.

Page: 785

Monograph: Ferritin; Iron; Iron-Binding Capacity (Total)

Content Area: Health Screening

Integrated Processes: Nursing Process – Assessment

Client Need: Health Promotion and Maintenance

Cognitive Level: Application

Concept: Hematologic Regulation

PTS: 1                    CON: Hematologic Regulation

36. ANS: 3

Feedback: Transient ischemic attack (TIA) may precede a stroke, so the nurse should teach the patient to immediately report any changes in speech, balance, or vision.

Page: 1482



Monograph: Ultrasound, Arterial Doppler, Carotid Studies  
Content Area: Potential for Alterations in Body Systems  
Integrated Processes: Nursing Process – Implementation  
Client Need: Reduction of Risk Potential  
Cognitive Level: Analysis  
Concept: Perfusion

PTS: 1                    CON: Perfusion

37. ANS: 2

Feedback: The nurse should implement the basic measure of ensuring adequate fluid intake to maintain good urine output to decrease the risk of urinary stasis, which supports bacterial growth.

Page: 676

Monograph: Culture, Bacterial, Urine  
Content Area: Potential for Alterations in Body Systems  
Integrated Processes: Nursing Process – Planning  
Client Need: Reduction of Risk Potential  
Cognitive Level: Application  
Concept: Infection

PTS: 1                    CON: Infection

38. ANS: 2

Feedback: This response by the nurse correctly describes the significance of DEXA and identifies that the patient's results are considered normal.

Page: 321

Monograph: Bone Mineral Densitometry  
Content Area: Health Screening  
Integrated Processes: Teaching and Learning  
Client Need: Reduction of Risk Potential  
Cognitive Level: Application  
Concept: Mobility

PTS: 1                    CON: Mobility

39. ANS: 4

Feedback: The nurse's first action, if a transfusion reaction is suspected, should be to discontinue the transfusion to prevent additional blood that may exacerbate the extent of the reaction.

Page: F-2

Monograph: Appendix F – Transfusion Reactions  
Content Area: Potential for Alterations in Body Systems  
Integrated Processes: Nursing Process – Implementation  
Client Need: Reduction of Risk Potential  
Cognitive Level: Analysis  
Concept: Immunity

PTS: 1                    CON: Immunity

40. ANS: 2

Feedback: The nurse's first priority should be the correct identification of the patient using established institutional protocol, which includes two unique numeric identifiers in accordance with the Joint Commission's National Patient Safety Goal #1A. Examples of unique identifiers are the patient's full name and date of birth.

Page: 1634

Monograph: Appendix A – Specimen Collection

Content Area: Error Prevention

Integrated Processes: Nursing Process – Implementation

Client Need: Safety and Infection Control

Cognitive Level: Application

Concept: Safety

PTS: 1                      CON: Safety

41. ANS: 1

Feedback: PCO<sub>2</sub>, which is the partial pressure of carbon dioxide in the blood, is an important indicator of ventilation. The level of PCO<sub>2</sub> is controlled primarily by the lungs and is referred to as the respiratory component of acid-base balance. PO<sub>2</sub> is the partial pressure of oxygen in the blood. Oxygen saturation is the percentage of total hemoglobin in the blood that is saturated with oxygen.

Heading: Blood Gases

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Oxygenation

Page: 295

Difficulty: Moderate

PTS: 1                      CON: Oxygenation

42. ANS: 1

Feedback: For a transabdominal biopsy, the nurse should assist the patient into a supine position on the examination table with abdomen exposed. The lithotomy position would be used for a transvaginal biopsy. The patient should be placed in the left side-lying position after the procedure. The knee-chest position is used for a lumbar puncture procedure, not for a transabdominal biopsy.

Heading: Biopsy, Chorionic Villus

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Basic Care and Comfort

Cognitive Level: Application [Applying]

Concept: Pregnancy

Page: 238

Difficulty: Moderate

PTS: 1                      CON: Pregnancy

43. ANS: 2

Feedback: The nurse should identify the history of an implanted cardiac pacemaker as a contraindication to MRI since the magnetic resonance can deactivate the device.

Page: 1099

Monograph: Magnetic Resonance Imaging, Chest

Content Area: Diagnostic Tests  
Integrated Processes: Nursing Process – Planning  
Client Need: Reduction of Risk Potential  
Cognitive Level: Application  
Concept: Perfusion

PTS: 1                    CON: Perfusion

44. ANS: 1

Feedback: When bilirubin concentration increases, the yellowish pigment deposits in skin and sclera. This increase in yellow pigmentation is termed *jaundice* or *icterus*. A bluish coloration is associated with cyanosis, or lack of perfusion of oxygenated blood. A reddish color to the skin is indicative of hyperemia, or excessive perfusion of the tissues with blood, such as occurs in an infant's face when the infant is crying loudly. Pallor is a condition in which the skin color is paler than usual, or in lighter-skinned people, even white.

Heading: Bilirubin and Bilirubin Fractions  
Integrated Processes: Nursing Process  
Client Need: Physiological Integrity: Reduction of Risk Potential  
Cognitive Level: Application [Applying]  
Concept: Hematological Regulation  
Page: 207  
Difficulty: Easy

PTS: 1                    CON: Hematological Regulation

45. ANS: 1

Feedback: The nurse should interpret an increase in bicarbonate as an indication that a patient with respiratory acidosis is responding to treatment.

Page: 297  
Monograph: Blood Gases  
Content Area: Alterations in Body Systems  
Integrated Processes: Nursing Process – Evaluation  
Client Need: Physiological Adaptation  
Cognitive Level: Analysis  
Concept: pH Regulation

PTS: 1                    CON: pH Regulation

46. ANS: 4

Feedback: The nurse should administer ordered prophylactic antibiotics 1 hour before incision and use antibiotics that are consistent with current guidelines specific to the procedure.

Heading: Biopsy, Liver  
Integrated Processes: Nursing Process  
Client Need: Physiological Integrity: Pharmacological and Parenteral Therapies  
Cognitive Level: Application [Applying]  
Concept: Infection  
Page: 249  
Difficulty: Moderate

PTS: 1                    CON: Infection

47. ANS: 4

Feedback: A T-score of  $-2.75$  is diagnostic for osteoporosis, so the nurse should assess for kyphosis, decrease in height, and back pain.

Page: 321

Monograph: Bone Mineral Densitometry

Content Area: Alterations in Body Systems

Integrated Processes: Nursing Process – Assessment

Client Need: Physiological Adaptation

Cognitive Level: Analysis

Concept: Mobility

PTS: 1                    CON: Mobility

48. ANS: 1

Feedback: Antimitochondrial antibodies are autoantibodies that react with the inner lining of mitochondria and are associated with biliary cirrhosis. An elevated ALP also indicates liver disease, so the nurse should assess for signs of liver failure.

Page: 36

Monograph: Alkaline Phosphatase

Content Area: Potential for Alterations in Body Systems

Integrated Processes: Nursing Process – Assessment

Client Need: Reduction of Risk Potential

Cognitive Level: Analysis

Concept: Digestion

PTS: 1                    CON: Digestion

49. ANS: 3

Feedback: The nurse's first response should be to identify any associated signs, such as change in vital signs or respiratory status to ensure that this is not developing into anaphylaxis.

Page: 553

Monograph: Computed Tomography, Brain

Content Area: Adverse Effects/Contraindications/Side Effects

Integrated Processes: Nursing Process – Evaluation

Client Need: Pharmacological and Parenteral Therapies

Cognitive Level: Application

Concept: Immunity

PTS: 1                    CON: Immunity

50. ANS: 1

Feedback: Guidelines for performing a BPP require observation of at least 30 to 60 minutes before interpreting the profile. The BPP evaluates 5 individual parameters over a 30 minute period; each parameter is scored "2" if it meets the criteria for normal and "0" if the findings are abnormal. A score of 10 means normal on all counts.

Page: 1495

Monograph: Ultrasound, Biophysical Profile, Obstetric

Content Area: Diagnostic Tests

Integrated Processes: Nursing Process – Implementation

Client Need: Reduction of Risk Potential

Cognitive Level: Application  
Concept: Pregnancy

PTS: 1                      CON: Pregnancy

51. ANS: 4

Feedback: Hemosiderin testing is used to assist in investigating recent intravascular hemolysis and to assist in the diagnosis of unexplained anemias, hemochromatosis, and renal tube damage. Ham's test for PNH is used to assist in diagnosing a rare condition called PNH, wherein red blood cells undergo lysis during and after sleep, with hemoglobin excreted in the urine. Haptoglobin testing is used to assist in evaluating for intravascular hemolysis related to transfusion reactions, chronic liver disease, hemolytic anemias, and tissue inflammation or destruction. Hemoglobin electrophoresis is used to assist in evaluating hemolytic anemias, identifying hemoglobin variants, and diagnosing thalassemias and sickle cell disease.

Heading: Hemosiderin

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Hematological Regulation

Page: 904

Difficulty: Moderate

PTS: 1                      CON: Hematological Regulation

52. ANS: 2

Feedback: Schiller's test entails applying an iodine solution to the cervix. Normal cells pick up the iodine and stain brown. Abnormal cells do not pick up any color. A Pap smear is a screening test in which cells are collected from the cervix for microscopic analysis. A colposcopy involves viewing the cervix with a colposcope, which provides illumination and magnification. A cone biopsy involves removing a wedge of tissue from the cervix with a surgical knife, a carbon dioxide laser, or a loop electro-surgical excision procedure.

Page: 232

Heading: Biopsy, Cervical

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Cellular Regulation

Page: 232

Difficulty: Moderate

PTS: 1                      CON: Cellular Regulation

53. ANS: 3

Feedback: A muscle biopsy is indicated for assisting in diagnosing muscular disease, such as Duchenne's muscular dystrophy and myasthenia gravis, as well as other neuropathies and parasitic infections. A lymph node biopsy is indicated for determining the stage of metastatic cancer. A prostate biopsy is indicated for assisting in diagnosing prostate cancer. A skin biopsy is indicated for assisting in diagnosing skin cancer, such as basal cell carcinoma, malignant melanoma, and squamous cell carcinoma.

Heading: Biopsy, Muscle

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]  
Concept: Cellular Regulation  
Page: 260  
Difficulty: Moderate

- PTS: 1                    CON: Cellular Regulation  
54. ANS: 3

Feedback: A bleeding time greater than 14 minutes represents a critical finding that should be noted and reported to the health-care provider immediately.

Heading: Bleeding Time  
Integrated Processes: Nursing Process  
Client Need: Physiological Integrity: Reduction of Risk Potential  
Cognitive Level: Application [Applying]  
Concept: Clotting  
Page: 292  
Difficulty: Moderate

- PTS: 1                    CON: Clotting  
55. ANS: 3

Feedback: The nurse's priority should be to prevent complications, such as severe headache, from the spinal tap by keeping the patient flat in bed for at least 8 hours.

Page: 46  
Monograph: Alzheimer's Disease Markers  
Content Area: Potential for Complications of Diagnostic Tests/Treatments/Procedures  
Integrated Processes: Nursing Process – Planning  
Client Need: Reduction of Risk Potential  
Cognitive Level: Application  
Concept: Cognition

- PTS: 1                    CON: Cognition  
56. ANS: 4

Feedback: This response by the nurse correctly describes the purpose of PCT.

Page: 410  
Monograph: Cholangiography, Percutaneous Transhepatic  
Content Area: Diagnostic Tests  
Integrated Processes: Teaching and Learning  
Client Need: Reduction of Risk Potential  
Cognitive Level: Application  
Concept: Digestion

- PTS: 1                    CON: Digestion  
57. ANS: 2

Feedback: The nurse should relate a history of food allergies to bananas, kiwis, pineapple, and peaches to latex allergy.

Page: 1031  
Monograph: Latex Allergy

Content Area: Alterations in Body Systems  
Integrated Processes: Nursing Process – Implementation  
Client Need: Safety and Infection Control  
Cognitive Level: Analysis  
Concept: Immunity

PTS: 1                    CON: Immunity

58. ANS: 2

Feedback: The BMG test is used to assist in diagnosing malignancy, such as lymphoma, leukemia, or multiple myeloma. A barium enema is used in diagnosis of colon tumors and polyps. A barium swallow is used in diagnosis of esophageal strictures and tumors. A biopsy is performed to diagnose bladder cancer.

Heading:  $\beta$ -Microglobulin, Blood and Urine  
Integrated Processes: Nursing Process  
Client Need: Physiological Integrity: Reduction of Risk Potential  
Cognitive Level: Application [Applying]  
Concept: Cellular Regulation  
Page: 191  
Difficulty: Moderate

PTS: 1                    CON: Cellular Regulation

59. ANS: 3

Feedback: Homocysteine and methylmalonic acid testing is used to assist in evaluating increased risk for blood clots, plaque formation, and platelet aggregations associated with atherosclerosis and stroke risk. HVA is used to assist in diagnosis of neuroblastoma, pheochromocytoma, and ganglioblastoma and to monitor therapy. 5-HIAA is used to assist in diagnosing carcinoid tumors, including ovarian tumors. Hexosaminidase A and B testing is used to assist in diagnosing Tay-Sachs disease by identifying a hexosaminidase enzyme deficiency.

Heading: Homocysteine and Methylmalonic Acid  
Integrated Processes: Nursing Process  
Client Need: Physiological Integrity: Reduction of Risk Potential  
Cognitive Level: Application [Applying]  
Concept: Clotting  
Page: 927  
Difficulty: Moderate

PTS: 1                    CON: Clotting

60. ANS: 1

Feedback: The nurse should assist the patient into a position that provides support and arches the back to open the intervertebral spaces. The two positions that accomplish this are a side-lying position with the knees pulled up to the chest and the chin-tucked position or sitting on the side of the bed with the arms and chest supported on a bedside table.

Page: 389  
Monograph: Cerebrospinal Fluid Analysis  
Content Area: Diagnostic Tests  
Integrated Processes: Nursing Process – Planning  
Client Need: Reduction of Risk Potential  
Cognitive Level: Application

Concept: Cognition

PTS: 1                    CON: Cognition

61. ANS: 1

Feedback: Thyroglobulin testing is used to evaluate thyroid gland function related to disorders such as tumor, inflammation, structural damage, and cancer. Thyroid-binding inhibitory immunoglobulin testing is used to assist in diagnosing Graves' disease, which is related to thyroid function. Thyroxine-binding globulin testing is used to evaluate thyroid hormone levels related to deficiency or excess to assist in diagnosing disorders such as hyperthyroidism and hypothyroidism. *Toxoplasma* antibody testing is used to assess for a past or present toxoplasmosis infection—a severe, generalized granulomatous central nervous system disease caused by a protozoan—and to assess for the presence of antibodies.

Heading: Thyroglobulin

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Cellular Regulation

Page: 1425

Difficulty: Moderate

PTS: 1                    CON: Cellular Regulation

62. ANS: 4

Feedback: Certain foods, such as onion, garlic, and asparagus, contain substances that may give urine an unusual odor.

Page: 1565

Monograph: Urinalysis

Content Area: Potential for Alterations in Body Systems

Integrated Processes: Nursing Process – Analysis

Client Need: Reduction of Risk Potential

Cognitive Level: Analysis

Concept: Urinary Elimination

PTS: 1                    CON: Urinary Elimination

63. ANS: 4

Feedback: The nurse should schedule the barium study or lower GI series last since the presence of barium will interfere with the other tests.

Page: 199

Monograph: Barium Enema; Lower GI Series

Content Area: Diagnostic Tests

Integrated Processes: Nursing Process – Planning

Client Need: Reduction of Risk Potential

Cognitive Level: Analysis

Concept: Digestion

PTS: 1                    CON: Digestion

64. ANS: 4

Feedback: The nurse should instruct the adult patient to limit sleep to 5 hours the night before the examination.



Page: 738

Monograph: Electroencephalography

Content Area: Diagnostic Tests

Integrated Processes: Teaching and Learning

Client Need: Reduction of Risk Potential

Cognitive Level: Analysis

Concept: Neurologic Regulation

PTS: 1                    CON: Neurologic Regulation

65. ANS: 3

Feedback: This response by the nurse is accurate. The baby should receive the first dose of hepatitis B vaccine and hepatitis B immune globulin at birth with a second dose at 1 to 2 months and the third at 6 months.

Page: 909

Monograph: Hepatitis B Antigen and Antibody

Content Area: Standard/Transmission-Based/Other Precautions

Integrated Processes: Teaching and Learning

Client Need: Safety and Infection Control

Cognitive Level: Application

Concept: Infection

PTS: 1                    CON: Infection

66. ANS: 2

Feedback: Transferrin testing is used to assess circulating iron levels related to dietary intake to assist in diagnosing disorders such as iron-deficiency anemia or hemochromatosis. Free thyroxine testing is used as a complementary laboratory test in evaluating thyroid hormone levels related to deficiency or excess to assist in diagnosing hyperthyroidism and hypothyroidism when TSH levels alone provide insufficient information. Triglycerides testing is used to evaluate triglyceride levels to assess cardiovascular disease risk and evaluate the effectiveness of therapeutic interventions. TSH testing is used to evaluate thyroid gland function related to the primary cause of hypothyroidism and to assess for congenital disorders, tumor, cancer, and inflammation.

Heading: Transferrin

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Hematological Regulation

Page: 1450

Difficulty: Moderate

PTS: 1                    CON: Hematological Regulation

67. ANS: 1

Feedback: This test is used primarily to assist in diagnosing congestive heart failure and not stroke, leukemia, or COPD.

Heading: B-Type Natriuretic Peptide and Pro-B-Type Natriuretic Peptide

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Perfusion

Page: 332  
Difficulty: Moderate

PTS: 1                    CON: Perfusion

68. ANS: 1

Feedback: A positive finding for varicella antibodies indicates infection with the varicella-zoster virus, which causes chickenpox. It is not associated with measles, mumps, or scarlet fever.

Heading: Varicella Antibodies  
Integrated Processes: Nursing Process  
Client Need: Physiological Integrity: Reduction of Risk Potential  
Cognitive Level: Application [Applying]  
Concept: Infection  
Page: 1579  
Difficulty: Easy

PTS: 1                    CON: Infection

69. ANS: 1

Feedback: All providers must maintain standard and universal precautions, so the nurse should use landmarks where the vein is palpable and attempt venipuncture with gloves on.

Page: 1628  
Monograph: Appendix A – Specimen Collection  
Content Area: Therapeutic Procedures  
Integrated Processes: Nursing Process – Implementation  
Client Need: Reduction of Risk Potential  
Cognitive Level: Analysis  
Concept: Hematologic Regulation

PTS: 1                    CON: Hematologic Regulation

70. ANS: 2

Feedback: The barium swallow is used to assist in diagnosing diseases of the esophagus, such as stricture or tumor. The modified barium swallow focuses on the oropharyngeal structures and is also used to evaluate dysphagia, or difficulty swallowing. The stomach and small intestine are not the focus in a barium swallow.

Heading: Barium Swallow  
Integrated Processes: Nursing Process  
Client Need: Physiological Integrity: Reduction of Risk Potential  
Cognitive Level: Application [Applying]  
Concept: Digestion  
Page: 202  
Difficulty: Moderate

PTS: 1                    CON: Digestion

71. ANS: 2

Feedback: Lung biopsy is used to assist in diagnosing lung cancer and other lung tissue disease, such as amyloidosis, granulomas, infections, sarcoidosis, systemic lupus erythematosus, and tuberculosis. Liver biopsy is used to assist in diagnosing liver cancer and other liver disorders, such as cirrhosis and hepatitis. Kidney biopsy is used to assist in diagnosing cancer and other renal disorders, including acute and chronic poststreptococcal glomerulonephritis, amyloidosis infiltration, disseminated lupus erythematosus, Goodpasture's syndrome, immunological rejection of transplanted kidney, nephrotic syndrome, pyelonephritis, and renal venous thrombosis. Intestinal biopsy is used to assist in confirming a diagnosis of intestinal cancer or disease, including celiac disease, lactose deficiency, parasitic infestation, and tropical sprue.

Heading: Biopsy, Lung

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Oxygenation

Page: 251

Difficulty: Moderate

PTS: 1                    CON: Oxygenation

72. ANS: 1

Feedback: If gallbladder function or bile reflux is being assessed as part of a hepatobiliary scan, the patient will be given a fatty meal or cholecystokinin 60 minutes after the radionuclide injection.

Heading: Hepatobiliary Scan

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Digestion

Page: 922

Difficulty: Moderate

PTS: 1                    CON: Digestion

73. ANS: 4

Feedback: A deficiency in vitamin K is associated with hemorrhagic disease of the newborn (newborns normally have low levels of vitamin K; neonates at risk are those who are not given a prophylactic vitamin K shot at birth or those receiving nutrition strictly from breast milk, which has less vitamin K than cow's milk). A deficiency in vitamin C is associated with scurvy (related to dietary deficiency or a lack of absorption). A deficiency in vitamin D is associated with rickets (related to dietary insufficiency). A deficiency in vitamin E is associated with hemolytic anemia (related to vitamin E's role as an important antioxidant that protects red blood cell membranes from weakening).

Heading: Vitamin K

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Nutrition

Page: 1604

Difficulty: Moderate

PTS: 1                    CON: Nutrition

74. ANS: 1  
Feedback: The nurse should anticipate blood tests for ACTH and cortisol levels. As the secretion of cortisol decreases in Addison's disease, the pituitary gland increases the production of ACTH.

Page: 10

Monograph: Adrenocorticotrophic Hormone (and Challenge Tests)

Content Area: Diagnostic Tests

Integrated Processes: Nursing Process – Planning

Client Need: Reduction of Risk Potential

Cognitive Level: Comprehension

Concept: Metabolism

PTS: 1                    CON: Metabolism

75. ANS: 3  
Feedback: Parathyroid hormone maintains calcium levels so the nurse should monitor for increased serum calcium and decreased serum phosphate levels in the patient with increased PTH.

Page: 1217

Monograph: Parathyroid Hormone

Content Area: System Specific Assessments

Integrated Processes: Nursing Process – Assessment

Client Need: Reduction of Risk Potential

Cognitive Level: Analysis

Concept: Metabolism

PTS: 1                    CON: Metabolism

76. ANS: 2  
Feedback: The nurse should identify that the presence of more than 25 squamous epithelial cells per lower power field is indicative of contamination by oral flora.

Page: 663

Monograph: Culture, Bacterial, Sputum

Content Area: Diagnostic Tests

Integrated Processes: Nursing Process – Analysis

Client Need: Reduction of Risk Potential

Cognitive Level: Analysis

Concept: Infection

PTS: 1                    CON: Infection

77. ANS: 2  
Feedback: 5-HIAA is used to assist in diagnosing carcinoid tumors, including ovarian tumors. HVA is used to assist in diagnosis of neuroblastoma, pheochromocytoma, and ganglioblastoma and to monitor therapy. Homocysteine and methylmalonic acid testing is used to assist in evaluating increased risk for blood clots, plaque formation, and platelet aggregations associated with atherosclerosis and stroke risk. Hexosaminidase A and B testing is used to assist in diagnosing Tay-Sachs disease by identifying a hexosaminidase enzyme deficiency.

Heading: 5-Hydroxyindoleacetic Acid

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]  
Concept: Cellular Regulation  
Page: 946  
Difficulty: Moderate

PTS: 1                    CON: Cellular Regulation

78. ANS: 2

Feedback: The nurse should rotate the swab firmly but gently over the back of the throat and around both tonsils while avoiding contact with the tongue and lips, especially on any areas of inflammation, exudation, or ulceration.

Page: 672  
Monograph: Culture, Bacterial, Throat or Nasopharyngeal  
Content Area: Diagnostic Tests  
Integrated Processes: Nursing Process – Implementation  
Client Need: Reduction of Risk Potential  
Cognitive Level: Application  
Concept: Infection

PTS: 1                    CON: Infection

79. ANS: 4

Feedback: The nurse should review the need for further evaluation since a negative result in an infant less than 3 months old may be a false result. Even if positive, the sickle cell screen does not distinguish between sickle cell trait and sickle cell anemia, so a follow-up evaluation should be performed.

Page: 1391  
Monograph: Sickle Cell Screen  
Content Area: Health Screening  
Integrated Processes: Teaching and Learning  
Client Need: Health Promotion and Maintenance  
Cognitive Level: Application  
Concept: Hematologic Regulation

PTS: 1                    CON: Hematologic Regulation

80. ANS: 1

Feedback: The nurse should send a minimum of 15 mL for routine urinalysis.

Page: 1560  
Monograph: Urinalysis  
Content Area: Diagnostic Tests  
Integrated Processes: Nursing Process – Implementation  
Client Need: Reduction of Risk Potential  
Cognitive Level: Application  
Concept: Urinary Elimination

PTS: 1                    CON: Urinary Elimination

81. ANS: 2

Feedback: *Ricinus communis* is the name for the castor oil plant. The plant's seeds contain an oil composed mostly of the lipid ricinolein and smaller amounts of ricin, a powerful toxin. *Bacillus anthracis* is a gram-positive, aerobic, rod-shaped, spore-forming bacterium found naturally in the soil that causes the disease anthrax. *Brucella abortus* is a gram-negative, aerobic, coccobacillus bacterium transmitted by consumption of infected meats and contaminated milk products, direct puncture of the skin, or inhalation. *Clostridium botulinum* is a gram-positive, anaerobic, rod-shaped, spore-forming bacterium found naturally in the soil that produces a potent neurotoxin that causes the disease botulism.

Heading: Bioterrorism and Public Health Safety Concerns: Testing for Toxins and Infectious Agents

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Digestion

Page: 285

Difficulty: Moderate

PTS: 1                      CON: Digestion

82. ANS: 4

Feedback: The posteroanterior, or "PA," view is usually taken with the patient standing or sitting erect.

Page: 392

Monograph: Chest X-ray

Content Area: Diagnostic Tests

Integrated Processes: Nursing Process – Assessment

Client Need: Reduction of Risk Potential

Cognitive Level: Application

Concept: Oxygenation

PTS: 1                      CON: Oxygenation

83. ANS: 2

Feedback: Hepatitis A virus (HAV) is classified as a picornavirus. Its primary mode of transmission is by the fecal-oral route under conditions of poor personal hygiene or inadequate sanitation. The nurse should stress the importance of frequent hand-washing. Hepatitis B and hepatitis C viruses—not HAV—are associated with parenteral, perinatal, and sexual contact modes of transmission.

Heading: Hepatitis A Antibody

Integrated Processes: Teaching and Learning

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Infection

Page: 905

Difficulty: Moderate

PTS: 1                      CON: Infection

84. ANS: 4

Feedback: Hexosaminidase A and B testing is used to assist in diagnosing Tay-Sachs disease by identifying a hexosaminidase enzyme deficiency. HVA is used to assist in diagnosis of neuroblastoma, pheochromocytoma, and ganglioblastoma and to monitor therapy. 5-HIAA is used to assist in diagnosing carcinoid tumors, including ovarian tumors. Homocysteine and methylmalonic acid testing is used to assist in evaluating increased risk for blood clots, plaque formation, and platelet aggregations associated with atherosclerosis and stroke risk.

Heading: Hexosaminidase A and B  
Integrated Processes: Nursing Process  
Client Need: Physiological Integrity: Reduction of Risk Potential  
Cognitive Level: Application [Applying]  
Concept: Neurological Regulation|  
Page: 923  
Difficulty: Moderate

PTS: 1                      CON: Neurological Regulation

85. ANS: 2

Feedback: A deficiency in vitamin D is associated with rickets (related to dietary insufficiency). A deficiency in vitamin C is associated with scurvy (related to dietary deficiency or a lack of absorption). A deficiency in vitamin E is associated with hemolytic anemia (related to vitamin E's role as an important antioxidant that protects red blood cell membranes from weakening). A deficiency in vitamin K is associated with hemorrhagic disease of the newborn (newborns normally have low levels of vitamin K; neonates at risk are those who are not given a prophylactic vitamin K shot at birth or those receiving nutrition strictly from breast milk, which has less vitamin K than cow's milk).

Heading: Vitamin D  
Integrated Processes: Nursing Process  
Client Need: Physiological Integrity: Reduction of Risk Potential  
Cognitive Level: Application [Applying]  
Concept: Nutrition  
Page: 1599  
Difficulty: Moderate

PTS: 1                      CON: Nutrition

86. ANS: 4

Feedback: The purpose of the RAST for IgE is to identify specific antigens.

Page: 39  
Monograph: Allergen-Specific Immunoglobulin E  
Content Area: Diagnostic Tests  
Integrated Processes: Teaching and Learning  
Client Need: Reduction of Risk Potential  
Cognitive Level: Application  
Concept: Oxygenation

PTS: 1                      CON: Oxygenation

87. ANS: 4

Feedback: The best response by the nurse is one that seeks clarification, so "tell me more about why you are upset" acknowledges the mother's concern and is most appropriate.

Page: 492  
Monograph: Complete Blood Count, Hemoglobin  
Content Area: Therapeutic Communication  
Integrated Processes: Communication and Documentation  
Client Need: Psychosocial Integrity  
Cognitive Level: Analysis  
Concept: Mood

PTS: 1                    CON: Mood

88. ANS: 3

Feedback: The nurse's most appropriate intervention is to stop the IV infusion for 2 minutes and access a site below the IV.

Page: 1631-1634  
Monograph: Appendix A – Specimen Collection  
Content Area: Diagnostic Tests  
Integrated Processes: Nursing Process – Planning  
Client Need: Reduction of Risk Potential  
Cognitive Level: Application  
Concept: Hematologic Regulation

PTS: 1                    CON: Hematologic Regulation

89. ANS: 2

Feedback: Free triiodothyronine testing is used as a complementary adjunct to evaluate thyroid hormone levels primarily related to hyperthyroidism and to assess causes of hypothyroidism. Free thyroxine testing is used with TSH as a first look at thyroid function. TSI testing is used to differentiate between antibodies that stimulate or inhibit thyroid hormone production related to disorders such as Graves' disease. Testing of troponins I and T is used to assist in evaluating myocardial muscle damage related to disorders such as myocardial infarction.

Heading: Triiodothyronine, Free  
Integrated Processes: Nursing Process  
Client Need: Physiological Integrity: Reduction of Risk Potential  
Cognitive Level: Application [Applying]  
Concept: Metabolism  
Page: 1459  
Difficulty: Moderate

PTS: 1                    CON: Metabolism

90. ANS: 4

Feedback: A skin biopsy is indicated for assisting in diagnosing skin cancer, such as basal cell carcinoma, malignant melanoma, and squamous cell carcinoma. A lymph node biopsy is indicated for determining the stage of metastatic cancer. A muscle biopsy is indicated for assisting in diagnosing muscular disease, such as Duchenne's muscular dystrophy, as well as other neuropathies and parasitic infections. A prostate biopsy is indicated for assisting in diagnosing prostate cancer.

Heading: Biopsy, Skin  
Integrated Processes: Nursing Process  
Client Need: Physiological Integrity: Reduction of Risk Potential  
Cognitive Level: Application [Applying]



Concept: Cellular Regulation

Page: 269

Difficulty: Moderate

PTS: 1                    CON: Cellular Regulation

91. ANS: 1

Feedback: A positive DAT indicates that the neonate has antibodies present that can cause hemolysis, so the nurse's priority should be to assess for clinical manifestations of HDN, such as jaundice at birth or onset in the first 24 hours.

Page: 602

Monograph: Coombs' Antiglobulin, Direct

Content Area: Potential for Alterations in Body Systems

Integrated Processes: Nursing Process – Implementation

Client Need: Reduction of Risk Potential

Cognitive Level: Analysis

Concept: Immunity

PTS: 1                    CON: Immunity

92. ANS: 2

Feedback: Based on age, history of diabetes, sedentary lifestyle, and HDL cholesterol level, the nurse should identify this patient as the most likely candidate for cardiac scoring.

Page: 555

Monograph: Computed Tomography, Cardiac Scoring

Content Area: Pathophysiology

Integrated Processes: Nursing Process – Analysis

Client Need: Physiological Adaptation

Cognitive Level: Analysis

Concept: Perfusion

PTS: 1                    CON: Perfusion

93. ANS: 3

Feedback: TSI testing is used to differentiate between antibodies that stimulate or inhibit thyroid hormone production related to disorders such as Graves' disease. Total thyroxine testing is used as a first look at thyroid function and a tool to evaluate the effectiveness of therapeutic thyroid therapy. Free triiodothyronine testing is used as a complementary adjunct to evaluate thyroid hormone levels primarily related to hyperthyroidism and to assess causes of hypothyroidism. Testing of troponins I and T is used to assist in evaluating myocardial muscle damage related to disorders such as myocardial infarction.

Heading: Thyroid-stimulating immunoglobulins

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Metabolism

Page: 1436

Difficulty: Moderate

PTS: 1                    CON: Metabolism

94. ANS: 3

Feedback: A prostate biopsy is indicated for assisting in diagnosing prostate cancer and evaluating prostatic hypertrophy of unknown etiology. A lymph node biopsy is indicated for determining the stage of metastatic cancer. A muscle biopsy is indicated for assisting in diagnosing muscular disease, such as Duchenne's muscular dystrophy, as well as other neuropathies and parasitic infections. A skin biopsy is indicated for assisting in diagnosing skin cancer, such as basal cell carcinoma, malignant melanoma, and squamous cell carcinoma.

Heading: Biopsy, Prostate

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Cellular Regulation

Page: 264

Difficulty: Moderate

PTS: 1                      CON: Cellular Regulation

95. ANS: 3

Feedback: The nurse should instruct the patient to perform oral care prior to collection of the specimen to decrease the potential for contamination by oral flora. If needed, the nurse should assist the patient with oral hygiene.

Page: 664

Monograph: Culture, Bacterial, Sputum

Content Area: Diagnostic Tests

Integrated Processes: Teaching and Learning

Client Need: Reduction of Risk Potential

Cognitive Level: Application

Concept: Infection

PTS: 1                      CON: Infection

96. ANS: 2

Feedback: Since the vaginal ultrasound probe will be covered by a sheath that may be made of latex, the nurse should identify a latex allergy as a possible contraindication and communicate this to the department performing the test.

Page: 1516

Monograph: Ultrasound, Pelvis (Gynecologic, Nonobstetric)

Content Area: Diagnostic Tests

Integrated Processes: Nursing Process – Assessment

Client Need: Reduction of Risk Potential

Cognitive Level: Analysis

Concept: Female Reproduction

PTS: 1                      CON: Female Reproduction

97. ANS: 3

Feedback: The nurse should identify these results as normal and plan care to maintain a normal voiding pattern postprocedure.

Page: 685

Monograph: Cystometry

Content Area: Alterations in Body Systems  
Integrated Processes: Nursing Process – Planning  
Client Need: Physiological Adaptation  
Cognitive Level: Analysis  
Concept: Urinary Elimination

PTS: 1                    CON: Urinary Elimination

98. ANS: 3

Feedback: The nurse should use a lancet with a puncture depth that does not exceed 2.0 mm in accordance with the CLSI (Clinical and Laboratory Standards Institute and formerly National Committee for Clinical Laboratory Standards [NCCLS]).

Page: 1636

Monograph: Appendix A – Specimen Collection  
Content Area: Potential for Complications of Diagnostic Tests/Treatments/Procedures  
Integrated Processes: Nursing Process – Planning  
Client Need: Reduction of Risk Potential  
Cognitive Level: Application  
Concept: Safety

PTS: 1                    CON: Safety

99. ANS: 3

Feedback: Thyroxine-binding globulin testing is used to evaluate thyroid hormone levels related to deficiency or excess to assist in diagnosing disorders such as hyperthyroidism and hypothyroidism. Thyroglobulin testing is used to evaluate thyroid gland function related to disorders such as tumor, inflammation, structural damage, and cancer. Thyroid-binding inhibitory immunoglobulin testing is used to assist in diagnosing Graves' disease, which is related to thyroid function. *Toxoplasma* antibody testing is used to assess for a past or present toxoplasmosis infection—a severe, generalized granulomatous central nervous system disease caused by a protozoan—and to assess for the presence of antibodies.

Heading: Thyroxine-Binding Globulin  
Integrated Processes: Nursing Process  
Client Need: Physiological Integrity: Reduction of Risk Potential  
Cognitive Level: Application [Applying]  
Concept: Metabolism  
Page: 1437  
Difficulty: Moderate

PTS: 1                    CON: Metabolism

100. ANS: 3

Feedback: Asking the patient to state his/her name and a unique numeric identifier, such as birth date, is recommended according the Joint Commission's National Patient Safety Goal #1A.

Page: 1629

Monograph: Appendix A – Specimen Collection  
Content Area: Diagnostic Tests  
Integrated Processes: Nursing Process – Implementation  
Client Need: Reduction of Risk Potential  
Cognitive Level: Application  
Concept: Safety

PTS: 1                    CON: Safety

101. ANS: 3

Feedback: The nurse's initial response should be to prepare the patient for a nonstress test, or contraction stress test, since an abnormal BPP would be followed immediately by additional diagnostic procedures.

Page: 1493

Monograph: Ultrasound, Biophysical Profile, Obstetric

Content Area: Diagnostic Tests

Integrated Processes: Nursing Process – Implementation

Client Need: Reduction of Risk Potential

Cognitive Level: Application

Concept: Pregnancy

PTS: 1                    CON: Pregnancy

102. ANS: 3

Feedback: The saturated solution of potassium iodide must be administered intravenously 24 hours before the initial scan and then for 10 days following the scan.

Page: 9

Monograph: Adrenal Gland Scan

Content Area: Diagnostic Tests

Integrated Processes: Teaching and Learning

Client Need: Reduction of Risk Potential

Cognitive Level: Application

Concept: Metabolism

PTS: 1                    CON: Metabolism

103. ANS: 1

Feedback: A lymph node biopsy is indicated for determining the stage of metastatic cancer. Muscle biopsy is indicated for assisting in diagnosing muscular disease, such as Duchenne's muscular dystrophy as well as other neuropathies and parasitic infections. A prostate biopsy is indicated for assisting in diagnosing prostate cancer. A skin biopsy is indicated for assisting in diagnosing skin cancer, such as basal cell carcinoma, malignant melanoma, and squamous cell carcinoma.

Heading: Biopsy, Lymph Node

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Cellular Regulation

Page: 256

Difficulty: Moderate

PTS: 1                    CON: Cellular Regulation

104. ANS: 1

Feedback: Mydriatics, such as atropine, are commonly used to dilate the pupil for eye examination. Since pupil dilation can exacerbate angle-closure glaucoma, the nurse should verify this order before administering the medication to a patient known to have this condition.

Page: 822

Monograph: Fundus Photography  
Content Area: Error Prevention  
Integrated Processes: Nursing Process – Implementation  
Client Need: Safety and Infection Control  
Cognitive Level: Analysis  
Concept: Sensory Perception

PTS: 1                    CON: Sensory Perception

105. ANS: 2

Feedback: The most accurate response by the nurse is to review the potential problems related to Rh incompatibility in pregnancy and discuss the need for vaccination and a repeat IAT in the last trimester.

Page: 605  
Monograph: Coombs' Antiglobulin, Indirect  
Content Area: Laboratory Values  
Integrated Processes: Teaching and Learning  
Client Need: Reduction of Risk Potential  
Cognitive Level: Application  
Concept: Immunity

PTS: 1                    CON: Immunity

106. ANS: 2

Feedback: The nurse is assessing color perception using the Ishihara color perception test.

Page: 463  
Monograph: Color Perception Test  
Content Area: Health Screening  
Integrated Processes: Nursing Process – Assessment  
Client Need: Health Promotion and Maintenance  
Cognitive Level: Application  
Concept: Sensory Perception

PTS: 1                    CON: Sensory Perception

107. ANS: 2

Feedback: Thyroid-binding inhibitory immunoglobulin testing is used to assist in diagnosing Graves' disease, which is related to thyroid function. Thyroglobulin testing is used to evaluate thyroid gland function related to disorders such as tumor, inflammation, structural damage, and cancer. Thyroxine-binding globulin testing is used to evaluate thyroid hormone levels related to deficiency or excess to assist in diagnosing disorders such as hyperthyroidism and hypothyroidism. *Toxoplasma* antibody testing is used to assess for a past or present toxoplasmosis infection—a severe, generalized granulomatous central nervous system disease caused by a protozoan—and to assess for the presence of antibodies.

Heading: Thyroid-Binding Inhibitory Immunoglobulin  
Integrated Processes: Nursing Process  
Client Need: Physiological Integrity: Reduction of Risk Potential  
Cognitive Level: Application [Applying]  
Concept: Metabolism  
Page: 1426  
Difficulty: Moderate

- PTS: 1                    CON: Metabolism  
108. ANS: 4  
Feedback: The nurse should assess a patient who is hypothermic more closely to evaluate oxygenation since vasoconstriction can interfere with pulse oximetry results.
- Page: 1336  
Monograph: Pulse Oximetry  
Content Area: Diagnostic Tests  
Integrated Processes: Nursing Process – Planning  
Client Need: Reduction of Risk Potential  
Cognitive Level: Analysis  
Concept: Thermo-regulation
- PTS: 1                    CON: Thermo-regulation  
109. ANS: 2  
Feedback: The nurse should observe the recommended timing when interpreting the dipstick results since precise timing is essential to accurate results.
- Page: 1565  
Monograph: Urinalysis  
Content Area: Diagnostic Tests  
Integrated Processes: Nursing Process – Implementation  
Client Need: Reduction of Risk Potential  
Cognitive Level: Application  
Concept: Urinary Elimination
- PTS: 1                    CON: Urinary Elimination  
110. ANS: 3  
Feedback: Apolipoproteins assist in regulating lipids and provide a more sensitive indication of risk than a calculated LDL cholesterol level, which can be inaccurate in patients with high triglyceride levels.
- Page: 171  
Monograph: Apolipoprotein A and B  
Content Area: Diagnostic Tests  
Integrated Processes: Communication and Documentation  
Client Need: Reduction of Risk Potential  
Cognitive Level: Application  
Concept: Perfusion
- PTS: 1                    CON: Perfusion  
111. ANS: 3  
Feedback: Ultrasound studies require the patient to lie still during the procedure, so a patient who is restless, confused, and needs frequent reminders to remain in bed is not a good candidate for this procedure.
- Page: 1482  
Monograph: Ultrasound, Arterial Doppler, Carotid Studies  
Content Area: Potential for Alterations in Body Systems  
Integrated Processes: Nursing Process – Assessment  
Client Need: Reduction of Risk Potential  
Cognitive Level: Analysis

Concept: Perfusion

PTS: 1                    CON: Perfusion

112. ANS: 4

Feedback: The nurse should notify the requesting health-care provider and the laboratory to cancel the test since the elevated blood glucose must be treated with the scheduled dose of insulin.

Page: 854

Monograph: Glucose

Content Area: Potential for Alterations in Body Systems

Integrated Processes: Nursing Process – Implementation

Client Need: Reduction of Risk Potential

Cognitive Level: Analysis

Concept: Metabolism

PTS: 1                    CON: Metabolism

113. ANS: 4

Feedback: Crowded living conditions are a risk factor for acquiring HAV. Therefore, the HAV antibody test is indicated for screening individuals living in long-term residential facilities or correctional facilities, as they are at higher risk for being infected. HAV is not associated with perinatal or parenteral modes of transmission. Workers at industrial facilities would be at no greater risk than the general population for acquiring HAV.

Heading: Hepatitis A Antibody

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Infection

Page: 905

Difficulty: Moderate

PTS: 1                    CON: Infection

114. ANS: 1

Feedback: The most appropriate intervention is for the nurse to explain that the patient should return in 1 week for follow-up since Monospot may provide a false-negative result if the test is done less than 6 days after exposure.

Page: 975

Monograph: Infectious Mononucleosis Screen

Content Area: Diagnostic Tests

Integrated Processes: Teaching and Learning

Client Need: Reduction of Risk Potential

Cognitive Level: Application

Concept: Infection

PTS: 1                    CON: Infection

115. ANS: 1

Feedback: If the oral radioactive nuclide I-123 is used, the nurse should administer it 24 hours before the scan.

Heading: Thyroid Scan

Integrated Processes: Nursing Process  
Client Need: Physiological Integrity: Pharmacological and Parenteral Therapies  
Cognitive Level: Application [Applying]  
Concept: Metabolism  
Page: 1430  
Difficulty: Moderate

PTS: 1                    CON: Metabolism

116. ANS: 1

Feedback: In a lung biopsy, the specimen can be obtained by open lung biopsy or transbronchially. In an open lung biopsy, the chest is opened via a thoracotomy, with the patient under general anesthesia, and a small thoracic incision is made to remove tissue from the chest wall. In a needle biopsy, a needle is inserted through the posterior chest wall and into the intercostal space. The needle is rotated to obtain the sample and then withdrawn. In a transbronchial biopsy, forceps pass through the bronchoscope to obtain the specimen. In a transcatheter bronchial brushing, a brush is inserted through the bronchoscope.

Heading: Biopsy, Lung  
Integrated Processes: Nursing Process  
Client Need: Physiological Integrity: Reduction of Risk Potential  
Cognitive Level: Application [Applying]  
Concept: Oxygenation  
Page: 253  
Difficulty: Moderate

PTS: 1                    CON: Oxygenation

117. ANS: 3

Feedback: An 8-year-old should be involved in the decision about how to complete the procedure, so the nurse should respond by asking the child to help.

Page: C-3  
Monograph: Appendix C – Guidelines for Age-Specific Communication  
Content Area: Diagnostic Tests  
Integrated Processes: Nursing Process – Implementation  
Client Need: Reduction of Risk Potential  
Cognitive Level: Application  
Concept: Development

PTS: 1                    CON: Development

118. ANS: 3

Feedback: The T-cell count is interpreted in relation to viral load. The nurse should instruct the patient that improvement in the T-cell profile is common in the early stages of the infection, but over time it will decrease.

Page: 379  
Monograph: CD4/CD8 Enumeration  
Content Area: Diagnostic Tests  
Integrated Processes: Teaching and Learning  
Client Need: Reduction of Risk Potential  
Cognitive Level: Application  
Concept: Immunity



- PTS: 1                    CON: Immunity  
119. ANS: 3  
Feedback: NTx is formed when collagenase acts on bone with small NTx fragments excreted in the urine after bone reabsorption. A decrease suggests that the nurse is monitoring the patient's response to treatment of osteoporosis.
- Page: 451  
Monograph: Collagen Cross-Linked N-Telopeptide  
Content Area: Pathophysiology  
Integrated Processes: Nursing Process – Evaluation  
Client Need: Physiological Adaptation  
Cognitive Level: Analysis  
Concept: Mobility
- PTS: 1                    CON: Mobility  
120. ANS: 4  
Feedback: The nurse should use good technique when performing a skin puncture for capillary blood samples by ensuring that the puncture is not on the finger pad and avoiding bruised areas.
- Page: 1631  
Monograph: Appendix A – Specimen Collection  
Content Area: Nonpharmacological Comfort Interventions  
Integrated Processes: Nursing Process – Planning  
Client Need: Basic Care and Comfort  
Cognitive Level: Analysis  
Concept: Comfort
- PTS: 1                    CON: Comfort  
121. ANS: 1  
Feedback: Free thyroxine testing is used as a tool to evaluate thyroid function when TSH levels alone provide insufficient information. Free triiodothyronine testing is used as a complementary adjunct to evaluate thyroid hormone levels primarily related to hyperthyroidism and to assess causes of hypothyroidism. TSI testing is used to differentiate between antibodies that stimulate or inhibit thyroid hormone production related to disorders such as Graves' disease. Testing of troponins I and T is used to assist in evaluating myocardial muscle damage related to disorders such as myocardial infarction.
- Heading: Thyroxine, Free  
Integrated Processes: Nursing Process  
Client Need: Physiological Integrity: Reduction of Risk Potential  
Cognitive Level: Application [Applying]  
Concept: Metabolism  
Page: 1442  
Difficulty: Moderate
- PTS: 1                    CON: Metabolism  
122. ANS: 2  
Feedback: The nurse should explain the purpose of the examination and provide the normal range to allay patient anxiety. This is the only accurate answer.

Page: 316  
Monograph: Blood Pool Imaging  
Content Area: Diagnostic Tests  
Integrated Processes: Communication and Documentation  
Client Need: Reduction of Risk Potential  
Cognitive Level: Application  
Concept: Perfusion

PTS: 1                    CON: Perfusion

123. ANS: 2

Feedback: The nurse should schedule the procedure 4 hours after the usual insulin dose and a meal.

Page: 1265  
Monograph: Positron Emission Tomography, FDG  
Content Area: Diagnostic Tests  
Integrated Processes: Nursing Process – Planning  
Client Need: Reduction of Risk Potential  
Cognitive Level: Analysis  
Concept: Neurologic Regulation

PTS: 1                    CON: Neurologic Regulation

124. ANS: 3

Feedback: Genetic testing may be conducted to search for mutations in various genes associated with types of thyroid cancer. Markers associated with a significant incidence of thyroid cancers include BRAF (associated with papillary thyroid cancer), RAS (associated with follicular and papillary thyroid cancers), RET/PTC (associated with an increased risk of developing inherited medullary thyroid cancer, also known as multiple endocrine neoplasia or MEN), and PAX8/PPAR (associated with congenital hypothyroidism and thyroid dysgenesis).

Heading: Biopsy, Thyroid  
Integrated Processes: Nursing Process  
Client Need: Physiological Integrity: Reduction of Risk Potential  
Cognitive Level: Application [Applying]  
Concept: Cellular Regulation  
Page: 275  
Difficulty: Difficult

PTS: 1                    CON: Cellular Regulation

125. ANS: 4

Feedback: The nurse should ask if the patient is smoking. Reference values differ for smokers since CEA is increased in those who smoke.

Page: 359  
Monograph: Cancer Antigens: CA 15-3, CA 19-9, CA 125, and Carcinoembryonic  
Content Area: Diagnostic Tests  
Integrated Processes: Nursing Process – Assessment  
Client Need: Reduction of Risk Potential  
Cognitive Level: Application  
Concept: Cellular Regulation

PTS: 1                    CON: Cellular Regulation

126. ANS: 3

Feedback: Any condition that results in inflammation of the bladder or urinary tract may cause falsely elevated values of NMP22. Incorrect fixative, gross contamination from blood, bacterial overgrowth from active urinary tract infection, and inadequate number of bladder cells in the specimen are all factors that would interfere with an accurate assessment of cytogenic marker, but they would not cause a falsely elevated value of NMP22.

Heading: Bladder Cancer Markers, Urine

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Analysis [Analyzing]

Concept: Cellular Regulation

Page: 290

Difficulty: Difficult

PTS: 1                    CON: Cellular Regulation

127. ANS: 1

Feedback: Ham's test for PNH is used to assist in diagnosing a rare condition called PNH, wherein red blood cells undergo lysis during and after sleep, with hemoglobin excreted in the urine. Haptoglobin testing is used to assist in evaluating for intravascular hemolysis related to transfusion reactions, chronic liver disease, hemolytic anemias, and tissue inflammation or destruction. Hemoglobin electrophoresis is used to assist in evaluating hemolytic anemias, identifying hemoglobin variants, and diagnosing thalassemias and sickle cell disease. Hemosiderin testing is used to assist in investigating recent intravascular hemolysis and to assist in the diagnosis of unexplained anemias, hemochromatosis, and renal tube damage.

Heading: Ham's Test for Paroxysmal Nocturnal Hemoglobinuria

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Hematological Regulation

Page: 892

Difficulty: Moderate

PTS: 1                    CON: Hematological Regulation

128. ANS: 1

Feedback: Free thyroxine testing is used as a complementary laboratory test in evaluating thyroid hormone levels related to deficiency or excess to assist in diagnosing hyperthyroidism and hypothyroidism when TSH levels alone provide insufficient information. Transferrin testing is used to assess circulating iron levels related to dietary intake to assist in diagnosing disorders such as iron-deficiency anemia or hemochromatosis. Triglycerides testing is used to evaluate triglyceride levels to assess cardiovascular disease risk and evaluate the effectiveness of therapeutic interventions. TSH testing is used to evaluate thyroid gland function related to the primary cause of hypothyroidism and to assess for congenital disorders, tumor, cancer, and inflammation.

Heading: Thyroxine, Free

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Metabolism

Page: 1438

Difficulty: Moderate

PTS: 1                    CON: Metabolism

129. ANS: 2

Feedback: Once the cystoscope is inserted, the bladder is irrigated with saline. This is done to distend the bladder and provide for easier visualization. Then, the bladder and urethra are examined by direct and lighted visualization. A tissue sample is removed using a cytology brush or biopsy forceps. The nurse should clean the external genitalia with a suitable antiseptic solution and drape the area with sterile towels before the cystoscope is inserted.

Heading: Biopsy, Bladder

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Urinary Elimination

Page: 216

Difficulty: Moderate

PTS: 1                    CON: Urinary Elimination

130. ANS: 2

Feedback: The nurse should explain that colposcopy provides a direct visualization of the vagina and cervix to identify areas of dysplasia and obtain tissue samples for further evaluation.

Page: 464

Monograph: Colposcopy

Content Area: Diagnostic Tests

Integrated Processes: Communication and Documentation

Client Need: Reduction of Risk Potential

Cognitive Level: Application

Concept: Cellular Regulation

PTS: 1                    CON: Cellular Regulation

131. ANS: 4

Feedback: The nurse plans to manage spontaneous pneumothorax since a negative D-dimer indicates a low probability of blood-clot formation that should be present with the other disorders listed.

Page: 707

Monograph: D-Dimer

Content Area: Illness Management

Integrated Processes: Nursing Process – Planning

Client Need: Physiological Adaptation

Cognitive Level: Application

Concept: Clotting

PTS: 1                    CON: Clotting

132. ANS: 2

Feedback: The nurse should confirm the requesting health-care provider's order and institutional policy regarding the use of the PICC since accessing the PICC for specimen collection is preferable to repeated unsuccessful venipuncture attempts.

Page: 1628

Monograph: Appendix A – Specimen Collection

Content Area: Central Venous Access Devices

Integrated Processes: Nursing Process – Implementation

Client Need: Pharmacological and Parenteral Therapies

Cognitive Level: Application

Concept: Hematologic Regulation

PTS: 1                    CON: Hematologic Regulation

133. ANS: 1

Feedback: The nurse should assess this patient for signs and symptoms of lactose intolerance, such as abdominal bloating, pain, flatus, and diarrhea related to the ingestion of dairy products.

Page: 1020

Monograph: Lactose Tolerance Test

Content Area: Potential for Alterations in Body Systems

Integrated Processes: Nursing Process – Assessment

Client Need: Reduction of Risk Potential

Cognitive Level: Analysis

Concept: Digestion

PTS: 1                    CON: Digestion

134. ANS: 1

Feedback: A deficiency in vitamin C is associated with scurvy (related to dietary deficiency or a lack of absorption). A deficiency in vitamin D is associated with rickets (related to dietary insufficiency). A deficiency in vitamin E is associated with hemolytic anemia (related to vitamin E's role as an important antioxidant that protects red blood cell membranes from weakening). A deficiency in vitamin K is associated with hemorrhagic disease of the newborn (newborns normally have low levels of vitamin K; neonates at risk are those who are not given a prophylactic vitamin K shot at birth or those receiving nutrition strictly from breast milk, which has less vitamin K than cow's milk).

Heading: Vitamins A, B1, B6, and C

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Nutrition

Page: 1606

Difficulty: Moderate

PTS: 1                    CON: Nutrition

135. ANS: 1

Feedback: The nurse should select a site on the medial or lateral aspect of the plantar surface to minimize the risk of injury.

Page: 1632

Monograph: Appendix A – Specimen Collection

Content Area: Diagnostic Tests

Integrated Processes: Nursing Process – Implementation

Client Need: Reduction of Risk Potential

Cognitive Level: Application

Concept: Safety

PTS: 1                    CON: Safety

136. ANS: 3

Feedback: The nurse should most likely document that the patient is a pregnant female since TORCH testing is commonly performed on pregnant women to screen for perinatal infection.

Page: 703

Monograph: Cytomegalovirus, Immunoglobulin G, and Immunoglobulin M

Integrated Processes: Communication and Documentation

Client Need: Reduction of Risk Potential

Cognitive Level: Application

Concept: Pregnancy

PTS: 1                    CON: Pregnancy

137. ANS: 2

Feedback: The nurse should inform the patient that the procedure involves obtaining three samples from different sites, with each sample requiring venipuncture. Most cases of bacteremia are detected by using three sets of separately collected blood cultures obtained over 1 to 2 hours at different peripheral sites; usually opposite arms.

Page: 661

Monograph: Culture, Bacterial, Blood

Content Area: Diagnostic Tests

Integrated Processes: Communication and Documentation

Client Need: Reduction of Risk Potential

Cognitive Level: Application

Concept: Infection

PTS: 1                    CON: Infection

138. ANS: 3

Feedback: Hemoglobin electrophoresis is used to assist in evaluating hemolytic anemias, identifying hemoglobin variants, and diagnosing thalassemias and sickle cell disease. Ham's test for PNH is used to assist in diagnosing a rare condition called PNH, wherein red blood cells undergo lysis during and after sleep, with hemoglobin excreted in the urine. Haptoglobin testing is used to assist in evaluating for intravascular hemolysis related to transfusion reactions, chronic liver disease, hemolytic anemias, and tissue inflammation or destruction. Hemosiderin testing is used to assist in investigating recent intravascular hemolysis and to assist in the diagnosis of unexplained anemias, hemochromatosis, and renal tube damage.

Heading: Hemoglobin Electrophoresis

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Hematological Regulation

Page: 898

Difficulty: Moderate

PTS: 1                    CON: Hematological Regulation

139. ANS: 3

Feedback: This procedure is contraindicated for patients with bleeding disorders (related to the potential for prolonged bleeding from the biopsy site) or aortic arch aneurysm. It is indicated for the following: assisting in the diagnosis of various intestinal disorders, such as lactose and other enzyme deficiencies, celiac disease, and parasitic infections; confirming suspected intestinal malignancy; and confirming suspicious findings during endoscopic visualization of the intestinal wall.

Heading: Biopsy, Intestinal

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Digestion

Page: 240

Difficulty: Moderate

PTS: 1                      CON: Digestion

140. ANS: 3

Feedback: The nurse should face the patient while explaining the procedure to the family member and maintain eye contact while the family member interprets.

Page: 1628

Monograph: Appendix A – Specimen Collection

Content Area: Therapeutic Communication

Integrated Processes: Communication and Documentation

Client Need: Psychosocial Integrity

Cognitive Level: Application

Concept: Communication

PTS: 1                      CON: Communication

141. ANS: 3

Feedback: Since the patient's BNP remains elevated, the nurse should emphasize the need to monitor daily weights and report weight gain immediately, as this is an early sign of decreased cardiac function. The BNP levels are elevated in patients with left ventricular dysfunction. BNP levels correlate with both the severity of symptoms and the prognosis in congestive heart failure.

Page: 336

Monograph: B-Type Natriuretic Peptide and Pro-B-Type Natriuretic Peptide

Content Area: Diagnostic Tests

Integrated Processes: Communication and Documentation

Client Need: Reduction of Risk Potential

Cognitive Level: Application

Concept: Perfusion

PTS: 1                      CON: Perfusion

142. ANS: 4

Feedback: Interpretation of this test requires comparison of the patient's daily activity log with symptoms and cardiac rhythm, so the nurse should instruct the patient regarding the importance of maintaining the log.

Page: 925

Monograph: Holter Monitor

Content Area: Diagnostic Tests

Integrated Processes: Teaching and Learning  
Client Need: Reduction of Risk Potential  
Cognitive Level: Application  
Concept: Perfusion

PTS: 1                    CON: Perfusion

143. ANS: 2

Feedback: The nurse should identify decreased urine specific gravity with only +1 protein as a sign of improvement in the kidneys' ability to filter protein when AGN is treated.

Page: 1562  
Monograph: Urinalysis  
Content Area: Alterations in Body Systems  
Integrated Processes: Nursing Process – Evaluation  
Client Need: Physiological Adaptation  
Cognitive Level: Analysis  
Concept: Urinary Elimination

PTS: 1                    CON: Urinary Elimination

144. ANS: 1

Feedback: A finding of no change in the loudness of the sound on the Bing test is consistent with conduction hearing loss. In normal hearing, the patient should hear a pulsating sound that gets louder and softer when the opening to the ear canal is alternately opened and closed. The results listed for the other tests are all normal.

Heading: Tuning Fork Tests  
Integrated Processes: Nursing Process  
Client Need: Physiological Integrity: Reduction of Risk Potential  
Cognitive Level: Application [Applying]  
Concept: Sensory Perception  
Page: 1476  
Difficulty: Moderate

PTS: 1                    CON: Sensory Perception

145. ANS: 3

Feedback: A thick, lightly colored specimen indicates a satisfactory specimen.

Page: 664  
Monograph: Culture, Bacterial, Sputum  
Content Area: Diagnostic Tests  
Integrated Processes: Nursing Process – Assessment  
Client Need: Reduction of Risk Potential  
Cognitive Level: Analysis  
Concept: Infection

PTS: 1                    CON: Infection

146. ANS: 2

Feedback: In the United States, approximately 35% of adults are positive for toxoplasma antibody. Since transmission of the oocysts that cause infection are primarily by contact with cats, the nurse should identify the need to teach this patient to avoid or minimize exposure to cat feces during pregnancy to avoid congenital transmission to the fetus. Good hand washing before handling food is important if the cats are kept indoors.



Page: 1446

Monograph: *Toxoplasma* Antibody

Content Area: Health Screening

Integrated Processes: Teaching and Learning

Client Need: Health Promotion and Maintenance

Cognitive Level: Application

Concept: Infection

PTS: 1                    CON: Infection

147. ANS: 3

Feedback: The most appropriate action is for the nurse to assess the site indicated and use that site if possible. This respects the patient's self-knowledge and allows the patient to participate in decisions about care.

Page: 1632

Monograph: Appendix A – Specimen Collection

Content Area: Potential for Alterations in Body Systems

Integrated Processes: Nursing Process – Implementation

Client Need: Reduction of Risk Potential

Cognitive Level: Analysis

Concept: Hematologic Regulation

PTS: 1                    CON: Hematologic Regulation

148. ANS: 4

Feedback: The nurse should instruct the patient to discontinue iron products since these may cause black, sticky stool that is difficult to clear even with bowel prep.

Page: 459

Monograph: Colonoscopy

Content Area: Diagnostic Tests

Integrated Processes: Teaching and Learning

Client Need: Reduction of Risk Potential

Cognitive Level: Application

Concept: Bowel Elimination

PTS: 1                    CON: Bowel Elimination

149. ANS: 2

Feedback: There are two types of needle biopsy: fine-needle biopsy, in which fluid and tumor cells are aspirated from the tumor site, and core-needle biopsy, in which a plug of bone is removed using a special serrated needle. In an open biopsy, a surgical biopsy by incision is performed to reveal the affected area so that the bone biopsy may be obtained.

Heading: Biopsy, Bone

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Cellular Regulation

Page: 218

Difficulty: Easy

PTS: 1                    CON: Cellular Regulation

150. ANS: 3

Feedback: Acute angle closure glaucoma is a medical emergency. Once the HCP notifies the nurse of the diagnosis, the nurse should initiate the facility's procedure for medical emergencies that require transfer of a patient to the nearest ER. The nurse should explain the situation to the patient and family and address any questions or concerns.

Page: 989

Monograph: Intraocular Pressure

Content Area: System Specific Assessments

Integrated Processes: Nursing Process – Planning

Client Need: Reduction of Risk Potential

Cognitive Level: Analysis

Concept: Sensory Perception

PTS: 1                    CON: Sensory Perception

151. ANS: 1

Feedback: The nurse performs an Allen test before arterial puncture to ensure that the patient has adequate collateral circulation to the hand if thrombosis of the radial artery occurs after arterial puncture.

Page: 304

Monograph: Blood Gases

Content Area: Injury Prevention

Integrated Processes: Nursing Process – Implementation

Client Need: Safety and Infection Control

Cognitive Level: Analysis

Concept: pH Regulation

PTS: 1                    CON: pH Regulation

152. ANS: 3

Feedback: A deficiency in vitamin E is associated with hemolytic anemia (related to vitamin E's role as an important antioxidant that protects red blood cell membranes from weakening). A deficiency in vitamin C is associated with scurvy (related to dietary deficiency or a lack of absorption). A deficiency in vitamin D is associated with rickets (related to dietary insufficiency). A deficiency in vitamin K is associated with hemorrhagic disease of the newborn (newborns normally have low levels of vitamin K; neonates at risk are those who are not given a prophylactic vitamin K shot at birth or those receiving nutrition strictly from breast milk, which has less vitamin K than cow's milk).

Heading: Vitamin E

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Nutrition

Page: 1602

Difficulty: Moderate

PTS: 1                    CON: Nutrition

153. ANS: 1

Feedback: Signs and symptoms of congestive heart failure include the following: decreased peripheral pulses; decreased (not increased) urinary output; cool, clammy skin (not warm, dry skin); tachypnea (not bradypnea); dyspnea; edema; altered level of consciousness; abnormal heart sounds; crackles in lungs; decreased activity tolerance; weight gain; fatigue; and hypoxia.

Heading: B-Type Natriuretic Peptide and Pro-B-Type Natriuretic Peptide

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Perfusion

Page: 334

Difficulty: Moderate

PTS: 1                    CON: Perfusion

154. ANS: 3

Feedback: The nurse ensures that epinephrine 1:1000 is on hand since this is the patient's first exposure and there is a potential for an anaphylactic reaction.

Page: 1474

Monograph: Tuberculin Skin Tests

Content Area: Potential for Alterations in Body Systems

Integrated Processes: Nursing Process – Assessment

Client Need: Reduction of Risk Potential

Cognitive Level: Application

Concept: Immunity

PTS: 1                    CON: Immunity

155. ANS: 4

Feedback: The nurse should teach the patient that vaccination is needed to prevent the possibility of congenital complications. The nurse should confirm that the patient is not pregnant and should instruct the patient to avoid pregnancy for at least 1 month after vaccination.

Page: 1582

Monograph: Varicella Antibodies

Content Area: Health Screening

Integrated Processes: Teaching and Learning

Client Need: Health Promotion and Maintenance

Cognitive Level: Application

Concept: Immunity

PTS: 1                    CON: Immunity

156. ANS: 3

Feedback: The nurse should plan to provide a sucrose-sweetened pacifier prior to this procedure since research supports the use of nonnutritive sucking as an effective measure to minimize physiological response to pain in neonates.

Page: 1629

Monograph: Appendix A – Specimen Collection

Content Area: Diagnostic Tests

Integrated Processes: Nursing Process – Implementation

Client Need: Reduction of Risk Potential  
Cognitive Level: Application  
Concept: Comfort

PTS: 1                    CON: Comfort

157. ANS: 2

Feedback: After administration of local or general anesthesia, the nurse should place the patient in a lithotomy position on the examination table (with the feet up in stirrups). The other positions listed—Sims' (side-lying), semirecumbent, and supine—would not provide the access needed to the patient's genitalia for insertion of the cystoscope.

Heading: Biopsy, Bladder  
Integrated Processes: Nursing Process  
Client Need: Physiological Integrity: Reduction of Risk Potential  
Cognitive Level: Application [Applying]  
Concept: Urinary Elimination  
Page: 216  
Difficulty: Moderate

PTS: 1                    CON: Urinary Elimination

158. ANS: 1

Feedback: The purpose of the metoclopramide is to decrease nausea by promoting gastric emptying. Metoclopramide has an antagonistic effect on the central dopamine receptors, reducing nausea, a common response to drinking a large amount of GoLYTELY.

Page: 459  
Monograph: Colonoscopy  
Content Area: Diagnostic Tests  
Integrated Processes: Teaching and Learning  
Client Need: Reduction of Risk Potential  
Cognitive Level: Application  
Concept: Digestion

PTS: 1                    CON: Digestion

159. ANS: 3

Feedback: The best response is to provide an answer without increasing patient anxiety, so the nurse should respond, "This is a screening test that is used along with other data to monitor fetal development."

Page: 794  
Monograph:  $\alpha_1$ -Fetoprotein  
Content Area: Diagnostic Tests  
Integrated Processes: Communication and Documentation  
Client Need: Reduction of Risk Potential  
Cognitive Level: Application  
Concept: Pregnancy

PTS: 1                    CON: Pregnancy

160. ANS: 4

Feedback: Bilirubin is light sensitive, so the nurse should protect the specimen from light and promptly transport it to the laboratory for processing and analysis. An ice slurry, padded envelope, and foil are not necessary.

Heading: Bilirubin and Bilirubin Fractions

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Hematological Regulation

Page: 212

Difficulty: Moderate

PTS: 1                    CON: Hematological Regulation

161. ANS: 3

Feedback: The nurse should request that a nurse who knows the patient replace the armband before the specimen is collected. The nurse should then use the armband to confirm the patient's identity.

Page: 1634-1635

Monograph: Appendix A – Specimen Collection

Content Area: Error Prevention

Integrated Processes: Nursing Process – Implementation

Client Need: Safety and Infection Control

Cognitive Level: Analysis

Concept: Safety

PTS: 1                    CON: Safety

162. ANS: 3

Feedback: The nurse's first action should be to stimulate the patient and to instruct the patient to take several deep breaths. If other vital signs are stable, this may be the only intervention needed.

Page: 1337

Monograph: Pulse Oximetry

Content Area: Alterations in Body Systems

Integrated Processes: Nursing Process – Implementation

Client Need: Physiological Adaptation

Cognitive Level: Analysis

Concept: Perfusion

PTS: 1                    CON: Perfusion

163. ANS: 3

Feedback: The nurse should monitor the serum potassium and creatinine levels since angiotensin II receptor antagonists, such as losartan, inhibit potassium excretion. Impaired renal function can lead to hyperkalemia.

Page: 1279

Monograph: Potassium, Blood

Content Area: Illness Management

Integrated Processes: Nursing Process – Analysis

Client Need: Reduction of Risk Potential

Cognitive Level: Analysis

Concept: Fluid and Electrolyte Balance

- PTS: 1                    CON: Fluid and Electrolyte Balance  
164. ANS: 2  
Feedback: This is the method that will prevent surface contamination and provide the best specimen.

Page: 676  
Monograph: Culture, Bacterial, Urine  
Content Area: Diagnostic Tests  
Integrated Processes: Nursing Process – Implementation  
Client Need: Reduction of Risk Potential  
Cognitive Level: Application  
Concept: Infection

- PTS: 1                    CON: Infection  
165. ANS: 3  
Feedback: The nurse should clean the skin on the forearm or thigh when preparing a child for a sweat test. For an infant, both sites may be used to ensure collection of an adequate specimen.

Page: 408  
Monograph: Chloride, Sweat  
Content Area: Diagnostic Tests  
Integrated Processes: Nursing Process – Planning  
Client Need: Reduction of Risk Potential  
Cognitive Level: Application  
Concept: Fluid and Electrolyte Balance

- PTS: 1                    CON: Fluid and Electrolyte Balance  
166. ANS: 2  
Feedback: The nurse should anticipate an order for a clean-catch, midstream urine. Presence of yeast or gram-positive bacteria may result in a false negative for nitrite in the urine; however, the positive leukocyte esterase indicates the presence of certain white blood cells in the urine. Thus a urine culture is indicated for a pregnant patient with symptoms of possible urinary tract infection.

Page: 675  
Monograph: Culture, Bacterial, Urine; Urinalysis  
Content Area: System Specific Assessments  
Integrated Processes: Nursing Process – Planning  
Client Need: Reduction of Risk Potential  
Cognitive Level: Analysis  
Concept: Infection

- PTS: 1                    CON: Infection  
167. ANS: 2  
Feedback: A blood level of acetaminophen greater than 200 mcg/mL constitutes a critical finding.

Heading: Appendix B: Laboratory Critical Findings  
Integrated Processes: Nursing Process  
Client Need: Physiological Integrity: Reduction of Risk Potential  
Cognitive Level: Application [Applying]  
Concept: Hematological Regulation

Page: 1644  
Difficulty: Moderate

PTS: 1                    CON: Hematological Regulation

168. ANS: 1

Feedback: Factors that could interfere with the intradermal tuberculin skin test include immunosuppression, so the nurse should ask, "Are you currently taking corticosteroids or immunosuppressive drugs?"

Page: 1471  
Monograph: Tuberculosis: Skin and Blood Tests  
Content Area: Diagnostic Tests  
Integrated Processes: Nursing Process – Assessment  
Client Need: Reduction of Risk Potential  
Cognitive Level: Application  
Concept: Infection

PTS: 1                    CON: Infection

169. ANS: 4

Feedback: The nurse should plan care to manage possible Rh incompatibility since the Kleihauer-Betke test is used to determine the degree of FMH and to help calculate the dosage of RhIG.

Page: 1011  
Monograph: Kleihauer-Betke Test  
Content Area: Illness Management  
Integrated Processes: Nursing Process – Analysis  
Client Need: Physiological Adaptation  
Cognitive Level: Analysis  
Concept: Immunity

PTS: 1                    CON: Immunity

170. ANS: 4

Feedback: Exposure of the blood specimen to direct sunlight, or the phototherapy light, will reduce the level of bilirubin, so the nurse should turn off the phototherapy light while drawing the specimen.

Page: 212  
Monograph: Bilirubin and Bilirubin Fractions  
Content Area: Diagnostic Tests  
Integrated Processes: Nursing Process – Implementation  
Client Need: Reduction of Risk Potential  
Cognitive Level: Application  
Concept: Metabolism

PTS: 1                    CON: Metabolism

171. ANS: 3

Feedback: The hepatitis B surface antigen (HBsAg) appears first and will not be detectable until 8 to 12 weeks after exposure. A specimen that is negative for antigen and antibodies before that interval would provide a baseline for comparison.

Page: 908  
Monograph: Hepatitis B Antigen and Antibody

Content Area: System Specific Assessments  
Integrated Processes: Communication and Documentation  
Client Need: Reduction of Risk Potential  
Cognitive Level: Application  
Concept: Infection

PTS: 1                    CON: Infection

172. ANS: 4

Feedback: An NMP22 level of less than 6 units/mL indicates a negative finding; a level of 6 to 10 units/mL indicates a borderline finding; and a level greater than 10 units/mL indicates a positive finding. There is no “indeterminate” finding.

Heading: Bladder Cancer Markers, Urine  
Integrated Processes: Nursing Process  
Client Need: Physiological Integrity: Reduction of Risk Potential  
Cognitive Level: Application [Applying]  
Concept: Cellular Regulation  
Page: 289  
Difficulty: Difficult

PTS: 1                    CON: Cellular Regulation

173. ANS: 1

Feedback: A lactose-tolerance test requires the patient to be NPO for 12 hours and then ingest a 50 g dose of lactose dissolved in a small glass of water. Blood is drawn at timed intervals to measure the patient’s glucose level and determine if lactose is digested.

Page: 1021  
Monograph: Lactose Tolerance Test  
Content Area: Diagnostic Tests  
Integrated Processes: Nursing Process – Implementation  
Client Need: Reduction of Risk Potential  
Cognitive Level: Analysis  
Concept: Digestion

PTS: 1                    CON: Digestion

174. ANS: 3

Feedback: The nurse should correctly interpret this finding as inconclusive due to the neonate’s age since an inadequate amount of sweat may be produced in infants less than 1 month old.

Page: 407  
Monograph: Chloride, Sweat; Fecal Analysis  
Content Area: Health Screening  
Integrated Processes: Nursing Process – Implementation  
Client Need: Health Promotion and Maintenance  
Cognitive Level: Analysis  
Concept: Fluid and Electrolyte Balance

PTS: 1                    CON: Fluid and Electrolyte Balance

175. ANS: 3



Feedback: The nurse's first priority should be to monitor for respiratory depression secondary to the sedatives administered during the procedure.

Page: 422

Monograph: Cholangiopancreatography, Endoscopic Retrograde

Content Area: Potential for Alterations in Body Systems

Integrated Processes: Nursing Process – Assessment

Client Need: Reduction of Risk Potential

Cognitive Level: Analysis

Concept: Oxygenation

PTS: 1                    CON: Oxygenation

176. ANS: 4

Feedback: The nurse should use the medial or lateral surfaces of the neonate's heel for a capillary blood specimen.

Page: 1631

Monograph: Appendix A – Specimen Collection

Content Area: Injury Prevention

Integrated Processes: Nursing Process – Planning

Client Need: Safety and Infection Control

Cognitive Level: Application

Concept: Hematologic Regulation

PTS: 1                    CON: Hematologic Regulation

177. ANS: 2

Feedback: Infected individuals and carriers have a high frequency of chronic liver diseases, such as cirrhosis and chronic active hepatitis, as well as a higher risk of developing hepatocellular cancer. HCV infection is not associated with a high risk for developing renal disease, pancreatitis, or gastric cancer.

Heading: Hepatitis C Antibody

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Infection

Page: 914

Difficulty: Moderate

PTS: 1                    CON: Infection

178. ANS: 4

Feedback: The nurse should instruct the parents in precautions due to elimination of the radionuclide through the urine.

Page: 843

Monograph: Gastroesophageal Reflux Scan

Content Area: Handling Hazardous and Infectious Materials

Integrated Processes: Teaching and Learning

Client Need: Safety and Infection Control

Cognitive Level: Application

Concept: Digestion

PTS: 1                    CON: Digestion

179. ANS: 1

Feedback: The nurse should apply suction for approximately 10 seconds, and never more than 15 seconds, to minimize the risk of hypoxia.

Page: 698

Monograph: Cytology, Sputum

Content Area: Diagnostic Tests

Integrated Processes: Nursing Process – Planning

Client Need: Reduction of Risk Potential

Cognitive Level: Application

Concept: Cellular Regulation

PTS: 1                    CON: Cellular Regulation

180. ANS: 1

Feedback: The nurse should plan patient teaching to promote to lifestyle modifications to manage weight, promote activity, and control blood lipids since this score indicates the presence of a significant amount of calcified plaque in the coronary arteries, increasing the patient's risk of a future myocardial infarction (MI).

Page: 558

Monograph: Computed Tomography, Cardiac Scoring

Content Area: Health Screening

Integrated Processes: Nursing Process – Planning

Client Need: Health Promotion and Maintenance

Cognitive Level: Analysis

Concept: Nutrition

PTS: 1                    CON: Nutrition

181. ANS: 1

Feedback: HER-2/neu oncoprotein level is associated with metastatic breast cancer, and patients with high levels have rapid tumor progression and a lower survival rate. The nurse should plan interventions to assist a patient who has had a needle biopsy to cope with a poor prognosis after the physician has communicated the results of the test.

Page: 228

Monograph: Biopsy, Breast

Content Area: Stress Management

Integrated Processes: Caring

Client Need: Psychosocial Integrity

Cognitive Level: Analysis

Concept: Cellular Regulation

PTS: 1                    CON: Cellular Regulation

182. ANS: 1

Feedback: Overexpression of HER-2/neu is helpful in establishing histological evidence of metastatic breast cancer. Metastatic breast cancer patients with high levels of HER-2/neu oncoprotein have a poor prognosis. Increased level of this oncoprotein is not associated with leukemia, bladder cancer, or colon cancer.

Heading: Biopsy, Breast

Integrated Processes: Nursing Process  
Client Need: Physiological Integrity: Reduction of Risk Potential  
Cognitive Level: Application [Applying]  
Concept: Cellular Regulation  
Page: 228  
Difficulty: Moderate

PTS: 1                    CON: Cellular Regulation

183. ANS: 1

Feedback: HVA is used to assist in diagnosis of neuroblastoma, pheochromocytoma, and ganglioblastoma and to monitor therapy. 5-HIAA is used to assist in diagnosing carcinoid tumors, including ovarian tumors. Homocysteine and methylmalonic acid testing is used to assist in evaluating increased risk for blood clots, plaque formation, and platelet aggregations associated with atherosclerosis and stroke risk. Hexosaminidase A and B testing is used to assist in diagnosing Tay-Sachs disease by identifying a hexosaminidase enzyme deficiency.

Heading: Homovanillic Acid  
Integrated Processes: Nursing Process  
Client Need: Physiological Integrity: Reduction of Risk Potential  
Cognitive Level: Application [Applying]  
Concept: Cellular Regulation  
Page: 931  
Difficulty: Moderate

PTS: 1                    CON: Cellular Regulation

184. ANS: 1

Feedback: The nurse should instruct the patient to administer a sodium biphosphate (Fleet) enema prior to the examination since excess fecal matter in the rectum interferes with the study.

Page: 1520  
Monograph: Ultrasound, Prostate (Transrectal)  
Content Area: Diagnostic Tests  
Integrated Processes: Teaching and Learning  
Client Need: Reduction of Risk Potential  
Cognitive Level: Application  
Concept: Male Reproduction

PTS: 1                    CON: Male Reproduction

185. ANS: 2

Feedback: The nurse should complete the procedure and report the incident immediately to employee health in accordance with the OSHA Bloodborne Pathogens Standard.

Page: I-16  
Monograph: Appendix I – Standard Precautions  
Content Area: Reporting of Incident/Event/Irregular Occurrence/Variance  
Integrated Processes: Nursing Process – Implementation  
Client Need: Safety and Infection Control  
Cognitive Level: Analysis  
Concept: Safety

PTS: 1                    CON: Safety

186. ANS: 4

Feedback: The nurse, using an otoscope to examine a child, should pull the pinna down.

Page: 1203

Monograph: Otoscopy

Content Area: Techniques of Physical Assessment

Integrated Processes: Nursing Process – Implementation

Client Need: Health Promotion and Maintenance

Cognitive Level: Application

Concept: Infection

PTS: 1                    CON: Infection

187. ANS: 3

Feedback: The presence of gliadin antibodies indicates that the patient may have gluten-sensitive enteropathy (celiac disease), so the nurse should instruct the patient to maintain a gluten-free diet.

Page: 138

Monograph: Antibodies, Gliadin

Content Area: Nutrition and Oral Hydration

Integrated Processes: Nursing Process – Planning

Client Need: Basic Care and Comfort

Cognitive Level: Application

Concept: Nutrition

PTS: 1                    CON: Nutrition

188. ANS: 3

Feedback: Recommendations for screening include individual and family history. The most current guidelines for cervical cancer screening of the general population and individuals with increased risk are available from the American Cancer Society and the American Congress of Obstetricians and Gynecologists.

Page: 1216

Monograph: Papanicolaou Smear

Content Area: Health Screening

Integrated Processes: Teaching and Learning

Client Need: Health Promotion and Maintenance

Cognitive Level: Analysis

Concept: Cellular Regulation

PTS: 1                    CON: Cellular Regulation

189. ANS: 3

Feedback: Triglycerides testing is used to evaluate triglyceride levels to assess cardiovascular disease risk and evaluate the effectiveness of therapeutic interventions. Free thyroxine testing is used as a complementary laboratory test in evaluating thyroid hormone levels related to deficiency or excess to assist in diagnosing hyperthyroidism and hypothyroidism when TSH levels alone provide insufficient information. Transferrin testing is used to assess circulating iron levels related to dietary intake to assist in diagnosing disorders such as iron-deficiency anemia or hemochromatosis. TSH testing is used to evaluate thyroid gland function related to the primary cause of hypothyroidism and to assess for congenital disorders, tumor, cancer, and inflammation.

Heading: Triglycerides  
Integrated Processes: Nursing Process  
Client Need: Physiological Integrity: Reduction of Risk Potential  
Cognitive Level: Application [Applying]  
Concept: Perfusion  
Page: 1452  
Difficulty: Moderate

PTS: 1                      CON: Perfusion

## **MULTIPLE RESPONSE**

1. ANS: 1, 2, 3, 5

Feedback: Because individuals with HIV are immunocompromised, the nurse should recommend receiving vaccines for hepatitis B, influenza, and pneumonia; avoiding emptying cat litter boxes to avoid organism exposure; and avoiding eating raw foods that can cause infection from bacteria and protozoa. The patient need not stay isolated and avoid physical contact with others.

Heading: Human Immunodeficiency Virus Type 1 and Type 2 Antibodies  
Integrated Processes: Teaching and Learning  
Client Need: Physiological Integrity: Reduction of Risk Potential  
Cognitive Level: Application [Applying]  
Concept: Immunity  
Page: 941  
Difficulty: Moderate

PTS: 1                      CON: Immunity

2. ANS: 1, 2, 4

Feedback: Examples of waived tests include dipstick urinalysis, fecal occult blood, ovulation testing, urine pregnancy tests, erythrocyte sedimentation rate (nonautomated), hemoglobin (copper sulfate method), blood glucose (on glucose meters cleared by the FDA), spun hematocrit, and hemoglobin by single analyte instruments that are self-contained with direct measurement and readout. Pinworm examinations and wet-mount testing for the presence or absence of bacteria are examples of provider-performed microscopy, not waived tests.

Heading: Appendix G: Introduction to CLIA  
Integrated Processes: Nursing Process  
Client Need: Safe and Effective Care Environment: Management of Care  
Cognitive Level: Application [Applying]  
Concept: Regulations  
Page: App G  
Difficulty: Moderate

PTS: 1                      CON: Regulations

3. ANS: 1, 3, 5

Feedback: TG levels are increased in alcoholism (related to decreased breakdown of fats in the liver and increased blood levels), hypertension, and acute myocardial infarction. They are decreased in end-stage liver disease (related to cessation of liver function that results in decreased production of TG and TG transport proteins) and malnutrition (related to inadequate supply from dietary sources).

Heading: Triglycerides  
Integrated Processes: Nursing Process  
Client Need: Physiological Integrity: Reduction of Risk Potential  
Cognitive Level: Application [Applying]  
Concept: Perfusion  
Page: 1454  
Difficulty: Moderate

PTS: 1                    CON: Perfusion

4. ANS: 2, 3, 5

Feedback: The nurse should monitor vital signs and neurological status every 15 minutes for 1 hour (not every 2 hours), then every 2 hours for 4 hours, and then as ordered by the health-care provider. The nurse should monitor the patient's temperature every 4 hours for 24 hours. The nurse should observe for delayed allergic reactions, such as rash, urticaria, tachycardia, hyperpnea, hypertension, palpitations, nausea, or vomiting. The nurse should instruct the patient to immediately report chills or fever, not take ibuprofen. The nurse should assess for nausea and pain.

Heading: Biopsy, Bone  
Integrated Processes: Nursing Process  
Client Need: Physiological Integrity: Reduction of Risk Potential  
Cognitive Level: Application [Applying]  
Concept: Cellular Regulation  
Page: 221  
Difficulty: Moderate

PTS: 1                    CON: Cellular Regulation

5. ANS: 1, 3, 4

Feedback: The nurse should tell the patient to drink increased amounts of fluids for 24 to 48 hours to eliminate the radionuclide from the body, unless contraindicated. The patient should fast 8 to 12 hours *before* the scan, not 8 hours after it. If a woman who is breastfeeding must have a nuclear scan, she should not breastfeed the infant until the radionuclide has been eliminated. This could take as long as 3 days. She should be instructed to express the milk and discard it during the 3-day period to prevent cessation of milk production. All caregivers should wear gloves when discarding urine for the first 24 hours after the procedure. The nurse should tell the patient that the radionuclide will be eliminated from the body within 6 to 24 hours, not 5 to 7 days.

Heading: Thyroid Scan  
Integrated Processes: Nursing Process  
Client Need: Physiological Integrity: Reduction of Risk Potential  
Cognitive Level: Application [Applying]  
Concept: Metabolism  
Page: 1430  
Difficulty: Moderate

PTS: 1                    CON: Metabolism

6. ANS: 1, 2, 4

Feedback: For ABO and non-ABO acute hemolytic transfusion reactions, the nurse should immediately stop the transfusion, maintain the airway and apply oxygen therapy as needed, and maintain renal flow at greater than 100 mL/hr by use of osmotic and diuretic agents (e.g., Lasix, furosemide). Antipyretics should be administered for febrile nonhemolytic transfusion reactions, not for ABO and non-ABO acute hemolytic transfusion reactions. Antihistamines should be administered for urticarial/allergic reaction transfusion reactions, not for ABO and non-ABO acute hemolytic transfusion reactions.

Heading: Appendix F: Transfusion Reactions: Laboratory Findings and Potential Nursing Interventions  
Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Hematological Regulation

Page: App F

Difficulty: Difficult

PTS: 1                      CON: Hematological Regulation

7. ANS: 2, 3, 4

Feedback: Given that the primary modes of transmission for HBV are parenteral, perinatal, and sexual contact, groups at high risk for infection include intravenous drug abusers, health-care workers (who are exposed to contaminated blood and vulnerable to accidental needlesticks), and persons with multiple sex partners. Because the fecal-oral route is not a primary mode of transmission for HBV, communities without water purification and communities with diets high in raw shellfish are not at high risk for HBV infection.

Heading: Hepatitis B Antigen and Antibody

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Infection

Page: 909

Difficulty: Moderate

PTS: 1                      CON: Infection

8. ANS: 1, 4

Feedback: The existence of multiple myeloma or thyroid cancer can result in a false-negative scan for bone abnormalities. A distended bladder may obscure pelvic detail. Metallic objects within the examination field (e.g., jewelry, earrings, or dental amalgams) may inhibit organ visualization and can produce unclear images. Improper injection of the radionuclide may allow the tracer to seep deep into the muscle tissue, producing erroneous hot spots.

Heading: Bone Scan

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Mobility

Page: 324

Difficulty: Moderate

PTS: 1                      CON: Mobility

9. ANS: 3, 4, 5

Feedback: VMA testing is used to assist in the diagnosis of neuroblastoma, ganglioneuroma, and pheochromocytoma, as VMA level is increased in these conditions. VMA level is not increased in lymphoma or myeloma.

Heading: Vanillylmandelic Acid, Urine

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Cellular Regulation

Page: 1576

Difficulty: Moderate

PTS: 1                    CON: Cellular Regulation

10. ANS: 2, 4, 5

Feedback: Favorable findings from a breast biopsy include the following: *no* abnormal cells or tissues (which indicate mutations caused by cancer), majority diploid cell population (lower number of chromosome sets in the nucleus indicates lower growth rate), low S-phase fraction of replicating cells in total cell population (fewer cells replicating), negative to low percentage of Ki67 and other proteins (indicators of the degree of cell proliferation), and high percentage of estrogen and progesterone receptors (indicating greater likelihood of the cells responding to estrogen-deprivation therapy or the removal of the ovaries).

Heading: Biopsy, Breast

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Analysis [Analyzing]

Concept: Cellular Regulation

Page: 228

Difficulty: Moderate

PTS: 1                    CON: Cellular Regulation

11. ANS: 2, 3, 4

Feedback: The rigid bronchoscope allows visualization of the larger airways, including the lobar, segmental, and subsegmental bronchi, while maintaining effective gas exchange. Rigid bronchoscopy is preferred when large volumes of blood or secretions need to be aspirated, foreign bodies are to be removed, large biopsy specimens are to be obtained, and for most bronchoscopies in children. The flexible fiberoptic bronchoscope, not the rigid, has a smaller lumen that is designed to allow for visualization of all segments of the bronchial tree and is better tolerated by patients.

Heading: Bronchoscopy

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Oxygenation

Page: 327

Difficulty: Moderate

PTS: 1                    CON: Oxygenation

12. ANS: 1, 3, 4



Feedback: HBV's primary modes of transmission are parenteral, perinatal, and sexual contact, so the nurse should be prepared to teach about the risk of sharing needles, the importance of using condoms during sex, and the danger of a baby acquiring the infection from the mother at birth. The fecal-oral route is not a primary mode of transmission for HBV, so the nurse need stress the importance of avoiding consumption of raw shellfish or potentially contaminated water.

Heading: Hepatitis B Antigen and Antibody

Integrated Processes: Teaching and Learning

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Infection

Page: 908

Difficulty: Moderate

PTS: 1                    CON: Infection

13. ANS: 1, 2, 4

Feedback: The nurse should instruct the patient to wear loose-fitting clothing over the electrodes and not to disturb or disconnect the electrodes or wires. The nurse should advise the patient to avoid contact with electrical devices that can affect the strip tracings (e.g., shavers, toothbrush, massager, blanket) and to avoid showers and tub bathing. The nurse should instruct the patient to perform normal activities, such as walking, sleeping, climbing stairs, sexual activity, bowel or urinary elimination, cigarette smoking, emotional upsets, and medications, and to record them in an activity log. The nurse should instruct the patient regarding recording and pressing the button upon experiencing pain or discomfort. The nurse should advise the patient to report a light signal on the monitor, which indicates equipment malfunction or that an electrode has come off.

Heading: Holter Monitor

Integrated Processes: Teaching and Learning

Client Need: Safe and Effective Care Environment: Management of Care

Cognitive Level: Application [Applying]

Concept: Perfusion

Page: 926

Difficulty: Moderate

PTS: 1                    CON: Perfusion

14. ANS: 3, 4, 5

Feedback: This procedure can potentially diagnose cirrhosis, hepatitis, and liver cancer. Goodpasture's disease would be potentially diagnosed by a kidney biopsy. Celiac disease would be potentially diagnosed by an intestinal biopsy.

Heading: Biopsy, Liver

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Digestion

Page: 247

Difficulty: Moderate

PTS: 1                    CON: Digestion

15. ANS: 1, 2, 4

Feedback: A normal M:E in adults is 2:1 to 4:1. Thus, an M:E of 6:1 is increased. An increased M:E is associated with bone marrow failure, infections, leukemoid reactions, and myeloid leukemia. A decreased M:E is associated with anemias, hepatic disease, polycythemia vera, and posthemorrhagic hematopoiesis.

Heading: Biopsy, Bone Marrow

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Analysis [Analyzing]

Concept: Hematological Regulation

Page: 224

Difficulty: Difficult

PTS: 1                    CON: Hematological Regulation

16. ANS: 1, 2, 5

Feedback: Nursing implications for school-age children (6 to 11 years) include clearly defining and reinforcing behavior limits, explaining procedures in advance, using simple explanations and correct terminology, and allowing the child to have some control. The nurse should treat adolescents (12 to 18 years)—not school-age children—as adults and supplement information with rationale when communication with them.

Heading: Appendix E: Guidelines for Age-Specific Communication

Integrated Processes: Communication and Documentation

Client Need: Psychosocial Integrity

Cognitive Level: Application [Applying]

Concept: Communication

Page: App E

Difficulty: Moderate

PTS: 1                    CON: Communication

17. ANS: 2, 3, 4, 5

Feedback: Hysterosalpingography is used to visualize and assess the uterus and fallopian tubes to assess for obstruction, adhesions, malformations, or injuries that may be related to infertility. It is contraindicated in patients who are pregnant.

Heading: Hysterosalpingography

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Female Reproduction

Page: 948

Difficulty: Moderate

PTS: 1                    CON: Female Reproduction

18. ANS: 1, 2, 4

Feedback: Natural products that may affect cardiovascular disorders or interact with therapeutics (including those prescribed for hypertension and hypotension) include ephedra, ginseng, and garlic. Cinnamon and nutmeg are not known to affect these conditions.

Heading: Appendix H: Effects of Natural Products on Laboratory Values

Integrated Processes: Teaching and Learning

Client Need: Physiological Integrity: Reduction of Risk Potential  
Cognitive Level: Application [Applying]  
Concept: Perfusion  
Page: App H  
Difficulty: Moderate

PTS: 1                    CON: Perfusion

19. ANS: 1, 2, 4

Feedback: The nurse should inform the patient that a burning and flushing sensation may be felt throughout the body during injection of the contrast medium. After injection of the contrast medium, the patient may experience an urge to cough, flushing, nausea, or a salty or metallic taste in his or her mouth. The patient should not feel dizzy or an urge to urinate.

Heading: Venography, Lower Extremity Studies  
Integrated Processes: Teaching and Learning  
Client Need: Physiological Integrity: Reduction of Risk Potential  
Cognitive Level: Application [Applying]  
Concept: Clotting  
Page: 1585  
Difficulty: Moderate

PTS: 1                    CON: Clotting

20. ANS: 1, 2, 4

Feedback: Possible interventions in mildly febrile reactions include slowing the rate of infusion, and then verifying and comparing patient identification, transfusion requisition, and blood bag label. The patient should be monitored closely for further development of signs and symptoms. Administration of epinephrine may be ordered. Possible interventions in a more severe transfusion reaction may include immediate cessation of infusion, notification of the health-care provider, keeping the intravenous line open with saline or lactated Ringer's solution, collection of red- and lavender-top tubes for posttransfusion work-up, collection of urine, monitoring vital signs every 5 minutes, ordering additional testing if disseminated intravascular coagulation is suspected, maintaining patent airway and blood pressure, and administering mannitol.

Heading: Blood Groups and Antibodies  
Integrated Processes: Nursing Process  
Client Need: Physiological Integrity: Reduction of Risk Potential  
Cognitive Level: Application [Applying]  
Concept: Immunity  
Page: 309  
Difficulty: Moderate

PTS: 1                    CON: Immunity

21. ANS: 2, 4, 5

Feedback: Triiodothyronine level is increased in conditions with increased thyroxine-binding globulin (TBG), such as pregnancy and estrogen therapy, early thyroid failure, and iodine-deficiency goiter. It is decreased in hypothyroidism (thyroid hormones are not produced in sufficient quantities regardless of thyroid-stimulating hormone levels) and malnutrition (related to insufficient protein sources to form albumin and TBG).

Heading: Triiodothyronine, Total  
Integrated Processes: Nursing Process  
Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]  
Concept: Metabolism  
Page: 1462  
Difficulty: Moderate

PTS: 1                    CON: Metabolism

22. ANS: 1, 4

Feedback: The existence of multiple myeloma or thyroid cancer can result in a false-negative scan for bone abnormalities. A distended bladder may obscure pelvic detail. Metallic objects within the examination field (e.g., jewelry, earrings, or dental amalgams) may inhibit organ visualization and can produce unclear images. Improper injection of the radionuclide may allow the tracer to seep deep into the muscle tissue, producing erroneous hot spots.

Heading: Bone Scan  
Integrated Processes: Nursing Process  
Client Need: Physiological Integrity: Reduction of Risk Potential  
Cognitive Level: Application [Applying]  
Concept: Mobility  
Page: 324  
Difficulty: Moderate

PTS: 1                    CON: Mobility

23. ANS: 1, 2, 5

Feedback: If possible, the nurse should begin the test between 6 and 8 a.m. The nurse should obtain a clean 3-L urine specimen container, a toilet-mounted collection device, and a plastic bag (for transport of the specimen container). The first voiding should be discarded, not added to the collection device. The specimen must be refrigerated or kept on ice, not at room temperature, throughout the entire collection period. The nurse should record all urinary output for 24 hours.

Heading:  $\beta$ 2-Microglobulin, Blood and Urine  
Integrated Processes: Nursing Process  
Client Need: Physiological Integrity: Basic Care and Comfort  
Cognitive Level: Application [Applying]  
Concept: Urinary Elimination  
Page: 195  
Difficulty: Moderate

PTS: 1                    CON: Urinary Elimination

24. ANS: 2, 3, 5

Feedback: Critical findings include assessment of clear margins after tissue excision, classification or grading of a tumor, and identification of malignancy. Identification of lactose deficiency and of normal tissue and cells are not critical findings.

Heading: Biopsy, Intestinal  
Integrated Processes: Nursing Process  
Client Need: Physiological Integrity: Reduction of Risk Potential  
Cognitive Level: Application [Applying]  
Concept: Digestion  
Page: 240  
Difficulty: Moderate

PTS: 1                    CON: Digestion

25. ANS: 1, 3, 4, 5

Feedback: Anthrax, botulism, smallpox, and the plague are all category A agents. Ricin is a category B agent.

Heading: Bioterrorism and Public Health Safety Concerns: Testing for Toxins and Infectious Agents

Integrated Processes: Teaching and Learning

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Infection

Page: 277

Difficulty: Moderate

PTS: 1                    CON: Infection

26. ANS: 1, 3, 4

Feedback: The nurse should instruct the patient to do the following: abstain from smoking tobacco for 24 hours before testing; *not* consume foods high in amines for 48 hours before testing (bananas, avocados, beer, aged cheese, chocolate, cocoa, coffee, fava beans, grains, tea, vanilla, walnuts, and red wine); not consume foods or fluids high in caffeine for 48 hours before testing (coffee, tea, cocoa, and chocolate); avoid excessive exercise and stress during the 24-hour collection of urine; and avoid self-prescribed medications (especially aspirin) and prescribed medications (especially pyridoxine, levodopa, amoxicillin, carbidopa, reserpine, and disulfiram) for 2 weeks before testing and as directed.

Heading: Vanillylmandelic Acid, Urine

Integrated Processes: Teaching and Learning

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Cellular Regulation

Page: 1577

Difficulty: Moderate

PTS: 1                    CON: Cellular Regulation

27. ANS: 1, 3, 4

Feedback: Contraindications for this procedure include the following: patients who are pregnant or suspected of being pregnant, unless the potential benefits of a procedure using radiation far outweigh the risk of radiation exposure to the fetus and mother; patients with conditions associated with adverse reactions to contrast medium (e.g., asthma, food allergies, or allergy to contrast medium); and uncooperative patients who may not be able to retain the barium for imaging. Determining the cause of rectal bleeding, blood, pus, or mucus in the feces is an indication for this procedure, not a contraindication.

Heading: Barium Enema

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Bowel Elimination

Page: 197

Difficulty: Moderate

PTS: 1                    CON: Bowel Elimination

28. ANS: 2, 4, 5

Feedback: The nurse should instruct the patient to void prior to the procedure, not arrive with a full bladder. The nurse should record baseline vital signs and continue to monitor throughout the procedure. The nurse should place the patient in the supine position, not the lithotomy position. The nurse should cleanse the vaginal area and cover it with a sterile drape. The nurse should monitor the patient for complications related to the procedure.

Heading: Hysteroscopy

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Basic Care and Comfort

Cognitive Level: Application [Applying]

Concept: Female Reproduction

Page: 953

Difficulty: Moderate

PTS: 1                      CON: Female Reproduction

29. ANS: 2, 4

Feedback: Vertebroplasty is contraindicated for patients with renal failure, bleeding disorders (such as hemophilia), or pain that is primarily radicular. It is the preferred procedure when patients are too elderly or frail to tolerate open spinal surgery or if bones are too weak (such as in osteoporosis) for surgical repair.

Heading: Vertebroplasty

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Mobility

Page: 1588

Difficulty: Moderate

PTS: 1                      CON: Mobility

30. ANS: 2, 3, 4

Feedback: Potential diagnoses that can be made on the basis of positive findings in a kidney biopsy include acute poststreptococcal glomerulonephritis, cancer, and nephrotic syndrome. Celiac disease and lactose deficiency would be identified by an intestinal biopsy, not a kidney biopsy.

Heading: Biopsy, Kidney

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Urinary Elimination

Page: 243

Difficulty: Moderate

PTS: 1                      CON: Urinary Elimination

31. ANS: 1, 2, 3, 5

Feedback: Increased HLA-B27 level is associated with ankylosing spondylitis, Reiter's syndrome, juvenile rheumatoid arthritis, and psoriatic arthritis. It is not associated with osteoarthritis.

Heading: Human Leukocyte Antigen B27

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]  
Concept: Immunity  
Page: 945  
Difficulty: Moderate

PTS: 1                    CON: Immunity

32. ANS: 1, 4

Feedback: The existence of multiple myeloma or thyroid cancer can result in a false-negative scan for bone abnormalities. A distended bladder may obscure pelvic detail. Metallic objects within the examination field (e.g., jewelry, earrings, or dental amalgams) may inhibit organ visualization and can produce unclear images. Improper injection of the radionuclide may allow the tracer to seep deep into the muscle tissue, producing erroneous hot spots.

Heading: Bone Scan  
Integrated Processes: Nursing Process  
Client Need: Physiological Integrity: Reduction of Risk Potential  
Cognitive Level: Application [Applying]  
Concept: Mobility  
Page: 324  
Difficulty: Moderate

PTS: 1                    CON: Mobility

33. ANS: 4, 5

Feedback: Anthrax, botulism, and tularemia are bacteria that cannot be transmitted directly from person to person. Smallpox and Marburg are viruses that can be directly transmitted from person to person.

Heading: Bioterrorism and Public Health Safety Concerns: Testing for Toxins and Infectious Agents  
Integrated Processes: Teaching and Learning  
Client Need: Physiological Integrity: Reduction of Risk Potential  
Cognitive Level: Application [Applying]  
Concept: Infection  
Page: 277  
Difficulty: Moderate

PTS: 1                    CON: Infection

34. ANS: 1, 2, 4

Feedback: Signs and symptoms of an insufficient testosterone level include delayed puberty, poor development of muscle mass, minimal (not excessive) body hair, gynecomastia (breast development), and arms and legs that grow faster (not slower) than the trunk.

Heading: Testosterone, Total  
Integrated Processes: Nursing Process  
Client Need: Physiological Integrity: Reduction of Risk Potential  
Cognitive Level: Application [Applying]  
Concept: Male Reproduction  
Page: 1423  
Difficulty: Moderate

PTS: 1                    CON: Male Reproduction

35. ANS: 2, 4

Feedback: HCG level is increased in pregnancy (related to increased production by the placenta) and choriocarcinoma (related to a HCG-producing tumor). It is decreased in any condition associated with diminished viability of the placenta, such as ectopic pregnancy (HCG levels increase slower than in viable intrauterine pregnancies, plateau, and then decrease prior to rupture), intrauterine fetal demise, and spontaneous abortion.

Heading: Human Chorionic Gonadotropin

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Pregnancy

Page: 935

Difficulty: Moderate

PTS: 1                    CON: Pregnancy

36. ANS: 2, 3

Feedback: The nurse should instruct the patient that stools will be white or light in color, not black, for 2 to 3 days. The patient should be instructed to take a mild laxative daily until the stool is back to normal color. The patient should resume a normal diet after the barium swallow, as directed by the health-care provider. The patient should increase, not decrease, fluid intake. The nurse should instruct the parents of pediatric patients to hydrate children with electrolyte fluids; this is not necessary for older patients.

Heading: Barium Swallow

Integrated Processes: Teaching and Learning

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Digestion

Page: 206

Difficulty: Moderate

PTS: 1                    CON: Digestion

37. ANS: 1, 3, 5

Feedback: This procedure is contraindicated for the following: patients who are pregnant or suspected of being pregnant, unless the potential benefits of a procedure using radiation far outweigh the risk of radiation exposure to the fetus and mother; patients with anginal pain at rest or in patients with severe atherosclerotic coronary vessels (dipyridamole testing is not performed in these circumstances); or patients with asthma who are under chemical stress from vasodilators. Potential diagnoses related to this procedure include cardiac hypertrophy and myocardial infarction.

Heading: Blood Pool Imaging

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Perfusion

Page: 314

Difficulty: Moderate

PTS: 1                    CON: Perfusion

38. ANS: 1, 2, 5



Feedback: The nurse should instruct the patient that some discomfort and pain may be experienced during the procedure. The nurse should tell the patient to eat a low-residue diet for several days before the procedure and to consume only clear fluids the evening before, not the morning of, the procedure. The patient should be instructed to fast and restrict fluids for 8 hours before the procedure, not for 24 hours after the procedure. The patient should be informed that a laxative and cleansing enema may be needed the day before the procedure.

Heading: Barium Enema

Integrated Processes: Teaching and Learning

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Bowel Elimination

Page: 200

Difficulty: Moderate

PTS: 1                    CON: Bowel Elimination

39. ANS: 2, 3, 5

Feedback: This test is used to detect fetal abnormalities caused by numerous genetic disorders. Examples of genetic defects that are commonly tested for and can be identified from a chorionic villus sampling include sickle cell anemia, Down syndrome, and cystic fibrosis. Unlike amniocentesis, this test will not detect neural tube defects. Cervical biopsy, not chorionic villus biopsy, detects cervical cancer.

Heading: Biopsy, Chorionic Villus

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Analysis [Analyzing]

Concept: Pregnancy

Page: 236

Difficulty: Moderate

PTS: 1                    CON: Pregnancy

40. ANS: 4, 5

Feedback: Type A blood can only be received by others with type A or those with type AB (universal recipient).

Heading: Blood Groups and Antibodies

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Immunity

Page: 308

Difficulty: Moderate

PTS: 1                    CON: Immunity

41. ANS: 1, 4

Feedback: The existence of multiple myeloma or thyroid cancer can result in a false-negative scan for bone abnormalities. A distended bladder may obscure pelvic detail. Metallic objects within the examination field (e.g., jewelry, earrings, or dental amalgams) may inhibit organ visualization and can produce unclear images. Improper injection of the radionuclide may allow the tracer to seep deep into the muscle tissue, producing erroneous hot spots.

Heading: Bone Scan  
Integrated Processes: Nursing Process  
Client Need: Physiological Integrity: Reduction of Risk Potential  
Cognitive Level: Application [Applying]  
Concept: Mobility  
Page: 324  
Difficulty: Moderate

PTS: 1                    CON: Mobility

42. ANS: 2, 3

Feedback: There is a strong association between *H. pylori* infection and gastric cancer, duodenal and gastric ulcer, and chronic gastritis. *H. pylori* is not strongly associated with cirrhosis, hemolytic anemia, or pancreatitis.

Heading: *Helicobacter Pylori* Antibody  
Integrated Processes: Nursing Process  
Client Need: Physiological Integrity: Reduction of Risk Potential  
Cognitive Level: Application [Applying]  
Concept: Infection  
Page: 895  
Difficulty: Moderate

PTS: 1                    CON: Infection

43. ANS: 1, 4, 5

Feedback: Standard Precautions apply to (1) blood; (2) all body fluids, secretions, and excretions except sweat, regardless of whether they contain visible blood; (3) nonintact skin; and (4) mucous membranes. Contact with sweat or intact skin would not require use of Standard Precautions.

Heading: Appendix I: Standard Precautions  
Integrated Processes: Teaching and Learning  
Client Need: Safe and Effective Care Environment: Safety and Infection Control  
Cognitive Level: Application [Applying]  
Concept: Safety  
Page: App I  
Difficulty: Moderate

PTS: 1                    CON: Safety

44. ANS: 1, 4

Feedback: The existence of multiple myeloma or thyroid cancer can result in a false-negative scan for bone abnormalities. A distended bladder may obscure pelvic detail. Metallic objects within the examination field (e.g., jewelry, earrings, or dental amalgams) may inhibit organ visualization and can produce unclear images. Improper injection of the radionuclide may allow the tracer to seep deep into the muscle tissue, producing erroneous hot spots.

Heading: Bone Scan  
Integrated Processes: Nursing Process  
Client Need: Physiological Integrity: Reduction of Risk Potential  
Cognitive Level: Application [Applying]  
Concept: Mobility  
Page: 324

Difficulty: Moderate

PTS: 1                    CON: Mobility

45. ANS: 1, 2, 3

Feedback: There is an effective vaccine, available for yellow fever. Additional preventive measures for yellow fever include avoidance of further exposure to mosquitos by staying indoors during hours when they are most active and using repellents and mosquito netting. Preventive measures decrease the opportunity for uninfected mosquitoes to feed on infected blood, which in turn decreases the spread of the disease. Yellow fever is transmitted by mosquitoes, not directly from person to person, so frequent handwashing and avoidance of infected persons are not effective preventive measures.

Heading: Bioterrorism and Public Health Safety Concerns: Testing for Toxins and Infectious Agents

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Infection

Page: 282

Difficulty: Moderate

PTS: 1                    CON: Infection

46. ANS: 2, 3, 5

Feedback: Abscess, aneurysm, and infarction are all critical findings on a brain CT scan that should be reported to the requesting health-care provider immediately. Cysts and hematoma are abnormal findings but not critical.

Heading: Appendix C: Diagnostic Critical Findings

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Neurological Regulation

Page: 1654

Difficulty: Moderate

PTS: 1                    CON: Neurological Regulation

47. ANS: 1, 2, 3, 5

Feedback: Lymphocytes are increased in aplastic anemia, lymphatic leukemia, lymphomas, and lymphosarcoma. Neutrophils are increased in acute myeloblastic leukemia.

Heading: Biopsy, Bone Marrow

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Hematological Regulation

Page: 223

Difficulty: Moderate

PTS: 1                    CON: Hematological Regulation

48. ANS: 1, 2, 3

Feedback: Hysteroscopy is used to visualize and assess the endometrial lining of the uterus to assist in diagnosing disorders such as fibroids, cancer, and polyps. It is indicated for confirming the presence of uterine fibroids, investigating abnormal uterine bleeding, and assisting in the removal of uterine polyps. Hysterosalpingography, not hysteroscopy, is indicated for evaluating the patency of the fallopian tubes and assessing the adequacy of surgical tubal ligation and reconstructive surgery.

Heading: Hysteroscopy

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Female Reproduction

Page: 952

Difficulty: Moderate

PTS: 1                      CON: Female Reproduction

49. ANS: 2, 3, 4

Feedback: Decreased levels of vitamin B<sub>12</sub> in the blood are associated with Crohn's disease (related to poor absorption), dietary deficiency (related to insufficient intake, e.g., in vegetarians), and pernicious anemia (related to dietary deficiency or poor absorption). They are increased in chronic renal failure and diabetes.

Heading: Vitamin B<sub>12</sub>

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Nutrition

Page: 1596

Difficulty: Moderate

PTS: 1                      CON: Nutrition

## COMPLETION

1. ANS:

3, 5, 1, 2, 4, 6, 7

Feedback: Alternative blood types for transfusion would be in the following order: AB negative, A positive, B positive, A negative, B negative, O positive, O negative.

Heading: Blood Groups and Antibodies

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Immunity

Page: 308

Difficulty: Moderate

PTS: 1                      CON: Immunity

2. ANS:

4, 6, 2, 5, 3, 1

Feedback: The steps for performing a visual fields test are as follows: 1. Seat the patient 3 feet away from the tangent screen. 2. Cover the eye that is not being tested. 3. Ask the patient to place the chin in the chin rest and gently press the forehead against the support bar. 4. Ask the patient to stare at the disk on the screen. 5. Move an object toward the patient's visual field. 6. Have the patient signal when the object enters his or her visual field.

Heading: Visual Fields Test

Integrated Processes: Nursing Process

Client Need: Safe and Effective Care Environment: Management of Care

Cognitive Level: Analysis [Analyzing]

Concept: Sensory Perception

Page: 1594

Difficulty: Moderate

PTS: 1                      CON: Sensory Perception

3. ANS:

2, 6, 8, 1, 3, 7, 4, 5

Feedback: The steps for applying a Holter monitor to a patient are as follows: 1. Place the patient in a supine position. 2. Expose the chest and use clippers to remove hair from the site if appropriate. 3. Cleanse the chest thoroughly with alcohol and rub until red. 4. Apply electropaste to the skin sites to provide conduction. 5. Apply the electrodes to the proper sites on the chest and ensure that they are secure. 6. Attach the electrode cable to the monitor and the lead wires to the electrodes. 7. Check the monitor for paper supply and battery, insert the tape, and turn on the recorder. 8. Tape all wires to the chest, and place the belt or shoulder strap in the proper position.

Heading: Holter Monitor

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Basic Care and Comfort

Cognitive Level: Analysis [Analyzing]

Concept: Perfusion

Page: 926

Difficulty: Difficult

PTS: 1                      CON: Perfusion

4. ANS:

3, 1, 6, 2, 5, 4

Feedback: The steps for performing lower extremities studies using venography are as follows: 1. Place the patient in the supine position on an examination table. 2. Cleanse the selected area, and cover with a sterile drape. 3. A local anesthetic is injected at the site. 4. A needle is inserted at the site. 5. The contrast medium is injected. 6. A rapid series of images is taken during and after the filling of the vessels to be examined.

Heading: Venography, Lower Extremity Studies

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Basic Care and Comfort

Cognitive Level: Analysis [Analyzing]

Concept: Clotting

Page: 1586

Difficulty: Moderate

PTS: 1                      CON: Clotting

5. ANS:

4, 3, 1, 6, 2, 5

Feedback: The steps for performing a fiberoptic bronchoscopy are as follows: 1. Place the patient in a sitting position. 2. Spray the tongue and oropharynx with local anesthetic. 3. Provide the patient with an emesis basin and encourage spitting out saliva. 4. Place the patient in a supine position. 5. The fiberoptic scope is introduced through the nose. 6. The lungs are visually inspected and tissue samples are collected.

Heading: Bronchoscopy

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Oxygenation

Page: 330

Difficulty: Moderate

PTS: 1

CON: Oxygenation

6. ANS:

2, 1, 4, 3

Feedback: A sandbag may be placed under the abdomen to aid in moving the kidneys to the desired position. Direct the patient to take slow deep breaths when the local anesthetic is injected. Protect the site with sterile drapes. Instruct the patient to take a deep breath, exhale forcefully, and hold the breath while the biopsy needle is inserted and rotated to obtain a core of renal tissue.

Heading: Biopsy, Kidney

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Physiological Adaptation

Cognitive Level: Application [Applying]

Concept: Urinary Elimination

Page: 245

Difficulty: Moderate

PTS: 1

CON: Urinary Elimination

7. ANS:

3, 1, 2, 4

Feedback: The cervical biopsy is used to assist in confirmation of cancer when screening tests, such as the Pap smear, are positive. Cervical biopsy is obtained using an instrument that punches into the tissue and retrieves a tissue sample. Punch biopsy results may indicate the need for a cone biopsy of the cervix. Cone biopsy involves removing a wedge of tissue from the cervix. Following: cervical biopsy (colposcopy), LEEP can be used to treat abnormal tissue identified on biopsy.

Heading: Biopsy, Cervical

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Analysis [Analyzing]

Concept: Cellular Regulation

Page: 232

Difficulty: Moderate

PTS: 1

CON: Cellular Regulation

8. ANS:

3, 6, 1, 5, 2, 4

Feedback: The steps for blood pool imaging are as follows: 1. Place the patient in the supine position on the scanning table. 2. Expose the chest and attach the ECG leads. 3. Administer the radionuclide. 4. Scan the heart over the entire cardiac cycle. 5. Remove the IV catheter. 6. Apply a pressure dressing over the puncture site.

Heading: Blood Pool Imaging

Integrated Processes: Nursing Process

Client Need: Physiological Integrity: Reduction of Risk Potential

Cognitive Level: Application [Applying]

Concept: Perfusion

Page: 316

Difficulty: Moderate

PTS: 1

CON: Perfusion