Unit 11—Administration of Nonparenteral Medications

Part I—Matching

Directions. Using the answer sheet, place the letter of your choice in the appropriate space:

1. may be calibrated in mL, minims, or drops
2. the angle at either end of the slit between the eyelids
3. a deficient amount of oxygen in the blood
4. the act of drawing breath, vapor, or gas into the lungs
5. colorless, odorless, tasteless gas
6. means of delivering a solution or medication into the rectum
7. semisolid preparation of a drug combined with an oil or water-soluble base
8. ready-to-use enema
9. 1 teaspoon
10. 1 tablespoon

Part II—Completion

11. When using a unit dose solid medication, you would:
   a) ____________________________
   b) ____________________________
   c) ____________________________

12. List five disadvantages associated with the oral route of drug administration.
   a) ____________________________
   b) ____________________________
   c) ____________________________
   d) ____________________________
   e) ____________________________

13. ____________ medications are administered by instillation or by application.
Part III—Multiple Choice

**Directions.** Select the best answer to each multiple-choice question, and write the appropriated letter on the answer sheet:

14. One fluid ounce is equal to _____________.
   a) 20 mL
   b) 15 mL
   c) 25 mL
   d) 30 mL

15. When pouring a liquid oral medication, it is important to _____________.
   a) hold the measuring device at eye level
   b) allow bottle to come in contact with measuring device
   c) palm the label of the medication
   d) a and c

16. To instill ear drops in an adult patient, one must pull the pinna of the ear _____________.
   a) up and back
   b) to the side
   c) down and back
   d) to the middle

17. Nasal medications are usually administered by _____________.
   a) instillation
   b) spray
   c) irrigation
   d) a and b

18. Rectal medications are usually administered by instillation or _____________.
   a) irrigation
   b) insertion
   c) application
   d) spray

19. A/an ____________ is a small adhesive patch or disc that may be applied to the body near the treatment site.
   a) intradermal system
   b) subcutaneous system
   c) dermal system
   d) transdermal system

20. The normal range for oxygen in the arterial blood is _____________.
   a) 70 to 110 mm Hg
   b) 80 to 100 mm Hg
   c) 86 to 118 mm Hg
   d) 90 to 120 mm Hg
21. Oxygen is ordered as ____________.
   a) milliliters per minute
   b) liters per minute
   c) percentage of concentration
   d) b and c

22. Oxygen must be humidified before delivery to the patient to prevent ____________.
   a) an infection
   b) combustion
   c) drying of the respiratory mucosa
   d) drying of the skin

23. Symptoms of oxygen toxicity are ____________.
   a) substernal pain, nausea, vomiting, malaise, fatigue, numbness, and tachycardia
   b) substernal pain, nausea, vomiting, malaise, and bradycardia
   c) sternal pain, nausea, vomiting, dizziness, and fatigue
   d) substernal pain, nausea, vomiting, malaise, fatigue, numbness, and tingling of the extremities

24. Ophthalmic medications can cause systemic symptoms if the medicine is allowed to ____________.
   a) flow into the lacrimal sac
   b) enter the canthus
   c) flow out of the lacrimal sac
   d) none of these

25. The average water cup holds ____________.
   a) 3 ounces
   b) 2 ounces
   c) 4 ounces
   d) 5 ounces
**Unit 12—Parenteral Equipment and Supplies**

Part I—Matching

**Directions.** Using the answer sheet, place the letter of your choice in the appropriate space:

1. determined by the diameter of its lumen  
   - A. 21 to 23 G
2. usually contains a multiple dose of medicine  
   - B. 25 to 27 G
3. a small, sterile, prefilled glass container  
   - C. 1 mL
4. a movable cylinder  
   - D. ampule
5. part that holds the medication  
   - E. vial
6. end of the barrel where the needle is attached  
   - F. gauge
7. sharpened end of the needle  
   - G. tip
8. needle used for subcutaneous injection  
   - H. plunger
9. needle used for intramuscular injection  
   - I. point
10. size of syringe used for intradermal injection  
   - J. barrel

Part II—Completion

11. Name the three parts of a syringe that must remain sterile during the preparation and administration of a parenteral medication.
   a) ____________________________________________
   b) ____________________________________________
   c) ____________________________________________

12. Name five advantages of using a disposable syringe.
   a) ____________________________________________
   b) ____________________________________________
   c) ____________________________________________
   d) ____________________________________________
   e) ____________________________________________

13. The ____________ syringe has a scale in which each small line represents 2 units and each longer line, 10 units.
Part III—Multiple Choice

Directions. Select the best answer to each multiple-choice question, and write the appropriate letter on the answer sheet:

14. Syringes are named according to ______________.
   a) the manufacturer's choice
   b) the inventor's name
   c) their sizes and usages
   d) color

15. A 3 mL hypodermic syringe is calibrated in ______________.
   a) 0.1 ml
   b) 0.3 ml
   c) 0.2 ml
   d) 0.5 ml

16. Insulin syringes are calibrated in ______________.
   a) minims
   b) units
   c) cubic centimeters
   d) milliliters

17. The ______________ and ______________ of the medication ordered determines the size of the syringe-needle unit to be selected.
   a) color, odor
   b) color, amount
   c) amount, viscosity
   d) viscosity, odor

18. When giving a subcutaneous injection, you should not inject more than ______________ into subcutaneous tissue.
   a) 3 mL
   b) 2 mL
   c) 1 mL
   d) 1 1/2 mL

19. The 5 mL syringe is calibrated with a single metric scale. Each small line of this scale represents ______________ of a mL.
   a) 0.5
   b) 0.3
   c) 0.2
   d) 0.1

20. The tuberculin syringe has the metric scale on its barrel. Each small line of the metric scale represents ______________ of a mL.
   a) 0.5
   b) 0.1
   c) 0.01
   d) 0.02
21. The ______________ is the sharpened end of the needle.
   a) hub
   b) point
   c) bevel
   d) lumen

22. The point at which the shaft of the needle attaches to the hub is called the ______________.
   a) lumen
   b) shaft
   c) hilt
   d) flange

23. Used needles and syringes should be discarded in ______________.
   a) the trash can
   b) a rigid, puncture-proof container
   c) a sharps collector
   d) b and c

24. The ______________ of a needle is determined by the diameter of its lumen.
   a) gauge
   b) shaft
   c) hub
   d) bevel

25. When reading a syringe, one reads the calibrated scale that directly lines up with ______________.
   a) the markings on the plunger
   b) the smaller scale on the plunger
   c) the slightly pointed edge of the black rubber tip
   d) the larger scale on the plunger
Part I—Matching

Directions. Using the answer sheet, place the letter of your choice in the appropriate space:

1. to feel A. keloid
2. a blood tumor B. intramuscular
3. to remove by suction C. subcutaneous
4. pulled or drawn tight D. intradermal
5. a slight elevation of the skin E. rapport
6. a feeling of trust F. taut
7. scar tissue G. wheal
8. given at a 10- to 15-degree angle H. hematoma
9. given at a 45-degree angle I. aspirate
10. given at a 90-degree angle J. palpate

Part II—Completion

11. List three advantages of the parenteral route of drug administration.
   a) ___________________________________________________________________
   b) ___________________________________________________________________
   c) ___________________________________________________________________

12. Before administering any medication, carefully assess your patient’s condition. An assessment should include:
   a) ___________________________________________________________________
   b) ___________________________________________________________________
   c) ___________________________________________________________________
   d) ___________________________________________________________________
   e) ___________________________________________________________________

13. The ____________ method of injection is used for administering medications that can be irritating to or may stain subcutaneous tissue.
Part III—Multiple Choice

Directions. Select the best answer to each multiple-choice question, and write the appropriate letter on the answer sheet:

14. When administering a subcutaneous or intramuscular injection, you would gently pull back on the plunger to ____________.
   a) reduce discomfort to the patient
   b) ascertain that the needle is not in a blood vessel
   c) make sure that you are in the right site
   d) make sure that you have the right medicine

15. Body areas to avoid when choosing the site for an injection include ____________.
   a) healthy muscle tissue
   b) scar tissue
   c) moles, birthmarks, warts, tumors, lumps, and bones
   d) b and c

16. The body areas used for an intradermal injection are ____________.
   a) the deltoid muscle or gluteal muscle
   b) the inner forearm and the middle of the back
   c) the outer forearm and the middle of the back
   d) the thigh or the middle of the back

17. The ____________ is the traditional location for giving most (adult) deep intramuscular injections:
   a) ventrogluteal site
   b) deltoid muscle
   c) dorsogluteal site
   d) vastus lateralis

18. When administering an injection into the deltoid muscle, caution must be taken to avoid ____________.
   a) the sciatic nerve
   b) the brachial and axillary nerves
   c) the acromion and the humerus
   d) b and c

19. The ____________ is the preferred site for intramuscular injections in infants and children.
   a) ventrogluteal site
   b) deltoid muscle
   c) dorsogluteal site
   d) vastus lateralis

20. When administering insulin, you should ____________.
   a) not massage the injection site
   b) use any subcutaneous area for the injection
   c) not rotate the site of injection
   d) use a 30-degree angle
21. A correctly administered intradermal injection will produce ______________.
   a) a wheal
   b) a wheel
   c) a wen
   d) none of these

22. Examples of drugs that are administered subcutaneously are ______________.
   a) antibiotics
   b) insulin
   c) certain vitamins
   d) b and c

23. Insulin injection sites must be rotated to ______________.
   a) prevent tissue damage
   b) prevent accumulation of the unabsorbed medication
   c) prevent tissue hypertrophy
   d) all of these

24. When administering a Z-track injection, you would ______________.
   a) change needles after drawing up the medication
   b) massage the area after the injection
   c) use the vastus lateralis site
   d) wait 45 seconds before withdrawing the needle

25. Should an accidental stick occur after an injection, you would ______________.
   a) thoroughly wash the site where the stick occurred
   b) cleanse the skin with an antiseptic
   c) report/document the incident; obtain medical attention
   d) all of these
Unit 14—Allergy: An Overview

Part I—Matching

Directions. Using the answer sheet, place the letter of your choice in the appropriate space:

1. any substance that causes allergy
2. occurs suddenly; can be life-threatening
3. genetic predisposition to an allergy
4. radioallergosorbent test
5. paper radioimmunosorbent test
6. used for symptomatic relief of nasal congestion
7. epicutaneous
8. placement of a suspected allergen onto the skin
9. injection of a minute amount of allergen into the epidermal layer
10. radioimmunoassay

Part II—Completion

11. List three of the allergens that cause the most common allergies.
   a) __________________________________________________________
   b) __________________________________________________________
   c) __________________________________________________________

12. Name five of the diagnostic tests that are used for allergy.
   a) __________________________________________________________
   b) __________________________________________________________
   c) __________________________________________________________
   d) __________________________________________________________
   e) __________________________________________________________

13. Allergic rhinitis is also known as ____________.
Part III—Multiple Choice

Directions. Select the best answer to each multiple-choice question, and write the appropriate letter on the answer sheet:

14. The reaction between allergens and IgE antibodies causes the release of chemical substances such as ____________.
   a) histamine, leukotrienes, and prostaglandins
   b) histamine, leukocytes, and prostaglandins
   c) histamine, reagin, and prostaglandins
   d) histamine, basophils, and neutrophils

15. The classic symptoms of allergy are ____________.
   a) pain, fever, and sore throat
   b) sneezing, congestion, rhinorrhea, postnasal drip, and scratchy throat
   c) nausea, vomiting, and diarrhea
   d) headache, fever, and nausea

16. Before the initiation of allergy testing, the patient is ____________.
   a) given written instructions about medications to stop taking
   b) to sign a consent form
   c) carefully evaluated by the physician
   d) all of these

17. A skin test reaction of +2 indicates a reaction of ____________.
   a) up to 5 mm in diameter
   b) greater than 5 mm, and up to 10 mm in diameter
   c) greater than 10 mm, and up to 15 mm in diameter
   d) greater than 15 mm in diameter

18. The treatment of allergy may include ____________.
   a) avoidance of allergens
   b) drug therapy
   c) immunotherapy
   d) all of these

19. The presence of bacteria and neutrophils in a nasal smear may indicate ____________.
   a) bacterial infection
   b) IgE-mediated allergic rhinitis
   c) viral infection
   d) all of these

20. ____________ is the treatment of a disease process by stimulating the body’s immune system.
   a) Immunotherapy
   b) Chemotherapy
   c) Diet therapy
   d) Drug therapy
21. When testing a patient for hypersensitivity to certain substances, which drugs should be available for emergency use?
   a) epinephrine and Tigan
   b) epinephrine and Benadryl
   c) epinephrine and heparin
   d) epinephrine and insulin

22. According to the American Academy of Allergy and Immunology, the most common seasonal causes of hay fever in the United States are ____________.
   a) grasses (in the early spring)
   b) trees (in the late spring and summer)
   c) weeds (in the fall)
   d) trees (in the winter)

23. If you come into contact with stinging insects, you should ____________.
   a) move away slowly
   b) not slap at the insect
   c) beat the air with your hands
   d) a and b

24. One should seek medical help immediately after an insect sting if one experiences ____________.
   a) nausea or vomiting
   b) difficulty in breathing
   c) dizziness, weakness, or hives
   d) all of these

25. The patient should be observed for ____________ minutes following the injection of an allergenic extract.
   a) 15 to 30
   b) 15 to 45
   c) 15 to 40
   d) 15 to 60