

## Pediatric Nursing – A Case-Based Approach 1st Edition Tagher Knapp Test Bank

### Chapter 1: Bronchiolitis

1. Which intervention is appropriate for the infant hospitalized with bronchiolitis?

- a. Position on the side with neck slightly flexed.
- b. Administer antibiotics as ordered.
- c. Restrict oral and parenteral fluids if tachypneic.
- d. Give cool, humidified oxygen.

ANS: D

Cool, humidified oxygen is given to relieve dyspnea, hypoxemia, and insensible fluid loss from tachypnea. The infant should be positioned with the head and chest elevated at a 30- to 40-degree angle and the neck slightly extended to maintain an open airway and decrease pressure on the diaphragm. The etiology of bronchiolitis is viral. Antibiotics are given only if there is a secondary bacterial infection. Tachypnea increases insensible fluid loss. If the infant is tachypneic, fluids are given parenterally to prevent dehydration.

2. An infant with bronchiolitis is hospitalized. The causative organism is respiratory syncytial virus (RSV). The nurse knows that a child infected with this virus requires what type of isolation?

- a. Reverse isolation
- b. Airborne isolation
- c. Contact Precautions
- d. Standard Precautions

ANS: C

RSV is transmitted through droplets. In addition to Standard Precautions and hand washing, Contact Precautions are required. Caregivers must use gloves and gowns when entering the room. Care is taken not to touch their own eyes or mucous membranes with a contaminated gloved hand. Children are placed in a private room or in a room with other children with RSV infections. Reverse isolation focuses on keeping bacteria away from the infant. With RSV, other children need to be protected from exposure to the virus. The virus is not airborne.

3. A child has a chronic cough and diffuse wheezing during the expiratory phase of respiration. This suggests what condition?

- a. Asthma
- b. Pneumonia
- c. Bronchiolitis
- d. Foreign body in trachea

ANS: A

Asthma may have these chronic signs and symptoms. Pneumonia appears with an acute onset, fever, and general malaise. Bronchiolitis is an acute condition caused by respiratory syncytial

virus. Foreign body in the trachea occurs with acute respiratory distress or failure and maybe stridor.

4. Which nursing diagnosis is most appropriate for an infant with acute bronchiolitis due to respiratory syncytial virus (RSV)?

- a. Activity Intolerance
- b. Decreased Cardiac Output
- c. Pain, Acute
- d. Tissue Perfusion, Ineffective (peripheral)

ANS: A

**Rationale 1:** Activity intolerance is a problem because of the imbalance between oxygen supply and demand. Cardiac output is not compromised during an acute phase of bronchiolitis. Pain is not usually associated with acute bronchiolitis. Tissue perfusion (peripheral) is not affected by this respiratory-disease process.

**Rationale 2:** Activity intolerance is a problem because of the imbalance between oxygen supply and demand. Cardiac output is not compromised during an acute phase of bronchiolitis. Pain is not usually associated with acute bronchiolitis. Tissue perfusion (peripheral) is not affected by this respiratory-disease process.

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## Chapter 2: Asthma

1. The nurse is caring for a child hospitalized for status asthmaticus. Which assessment finding suggests that the child's condition is worsening?

- a. Hypoventilation
- b. Thirst
- c. Bradycardia
- d. Clubbing

ANS: A

The nurse would assess the child for signs of hypoxia, including restlessness, fatigue, irritability, and increased heart and respiratory rate. As the child tires from the increased work of breathing hypoventilation occurs leading to increased carbon dioxide levels. The nurse would be alert for signs of hypoxia. Thirst would reflect the child's hydration status. Bradycardia is not a sign of hypoxia; tachycardia is. Clubbing develops over a period of months in response to hypoxia. The presence of clubbing does not indicate the child's condition is worsening.

2. Which finding is expected when assessing a child hospitalized for asthma?

- a. Inspiratory stridor
- b. Harsh, barking cough
- c. Wheezing
- d. Rhinorrhea

ANS: C

Wheezing is a classic manifestation of asthma. Inspiratory stridor is a clinical manifestation of croup. A harsh, barking cough is characteristic of croup. Rhinorrhea is not associated with asthma.

3. A child has had cold symptoms for more than 2 weeks, a headache, nasal congestion with purulent nasal drainage, facial tenderness, and a cough that increases during sleep. The nurse recognizes these symptoms are characteristic of which respiratory condition?

- a. Allergic rhinitis
- b. Bronchitis
- c. Asthma
- d. Sinusitis

ANS: D

Sinusitis is characterized by signs and symptoms of a cold that do not improve after 14 days, a low-grade fever, nasal congestion and purulent nasal discharge, headache, tenderness, a feeling of fullness over the affected sinuses, halitosis, and a cough that increases when the child is lying down. The classic symptoms of allergic rhinitis are watery rhinorrhea, itchy nose, eyes, ears, and palate, and sneezing. Symptoms occur as long as the child is exposed to the allergen. Bronchitis is characterized by a gradual onset of rhinitis and a cough that is initially nonproductive but may change to a loose cough. The manifestations of asthma may vary, with wheezing being a classic sign. The symptoms presented in the question do not suggest asthma.

4. What is a common trigger for asthma attacks in children?

- a. Febrile episodes
- b. Dehydration
- c. Exercise
- d. Seizures

ANS: C

Exercise is one of the most common triggers for asthma attacks, particularly in school-age children. Febrile episodes are consistent with other problems, for example, seizures. Dehydration occurs as a result of diarrhea; it does not trigger asthma attacks. Viral infections are triggers for asthma. Seizures can result from a too-rapid intravenous infusion of theophylline therapy for asthma.

**5.**The practitioner changes the medications for the child with asthma to salmeterol (Serevent). The mother asks the nurse what this drug will do. The nurse explains that salmeterol (Serevent) is used to treat asthma because the drug produces which characteristic?

1. Decreases inflammation
2. Decreases mucous production
3. Controls allergic rhinitis
4. Dilates the bronchioles

**Correct Answer:** 4

**Rationale 1:** Salmeterol (Serevent) is a long-acting beta2-agonist that acts by bronchodilating. Steroids are anti-inflammatory, anticholinergics decrease mucous production, and antihistamines control allergic rhinitis.

**Rationale 2:** Salmeterol (Serevent) is a long-acting beta2-agonist that acts by bronchodilating. Steroids are anti-inflammatory, anticholinergics decrease mucous production, and antihistamines control allergic rhinitis.

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**Cognitive Level:** Analyzing

**Client Need:** Physiological Integrity

**Client Need Sub:** Pharmacological and Parenteral Therapies

**Nursing/Integrated Concepts:** Nursing Process: Implementation

**Learning Outcome:** LO 20.6 Create a nursing care plan for a child with a common acute respiratory condition.

**6.**Following parental teaching, the nurse is evaluating the parents understanding of environmental control for their child's asthma management. Which statement by the parents indicates appropriate understanding of the teaching?

1. We will replace the carpet in our child's bedroom with tile.
2. We're glad the dog can continue to sleep in our child's room.
3. We'll be sure to use the fireplace often to keep the house warm in the winter.
4. We'll keep the plants in our child's room dusted.

**Correct Answer:** 1

**Rationale 1:** Control of dust in the child's bedroom is an important aspect of environmental control for asthma management. When possible, pets and plants should not be kept in the home. Smoke from fireplaces should be eliminated.

**Rationale 2:** Control of dust in the child's bedroom is an important aspect of environmental control for asthma management. When possible, pets and plants should not be kept in the home. Smoke from fireplaces should be eliminated.

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**Global Rationale:** Control of dust in the child's bedroom is an important aspect of environmental control for asthma management. When possible, pets and plants should not be kept in the home. Smoke from fireplaces should be eliminated.

7. A child with asthma will be receiving an oral dose of prednisone. The order reads prednisone 2 mg/kg per day. The child weighs 50 lbs. The child will receive \_\_\_\_\_ milligrams daily. (Round the answer.)

**Standard Text:** Round the answer to the nearest whole number.

**Correct Answer:** 45.5 = 46

**Rationale:**  $22.7 \times 2 = 45.5$  (46)

**Global Rationale:**  $22.7 \times 2 = 45.5$  (46)

**Cognitive Level:** Analyzing

**Client Need:** Physiological Integrity

**Client Need Sub:** Pharmacological and Parenteral Therapies

**Nursing/Integrated Concepts:** Nursing Process: Implementation

**Learning Outcome:** LO 07. Plan the nursing care for the child with a chronic respiratory condition.

8. Parents of a child admitted with respiratory distress are concerned because the child won't lie down and wants to sit in a chair leaning forward. Which response by the nurse is the most appropriate?

1. This helps the child feel in control of his situation.
2. The child needs to be encouraged to lie flat in bed.
3. This position helps keep the airway open.
4. This confirms the child has asthma.

**Correct Answer:** 3

**Rationale 1:** Leaning forward helps keep the airway open. The child is not in control just because he is leaning forward. Lying flat in bed will increase the respiratory distress. This position does not confirm asthma.

**Rationale 2:** Leaning forward helps keep the airway open. The child is not in control just because he is leaning forward. Lying flat in bed will increase the respiratory distress. This position does not confirm asthma.

**Rationale 3:** Leaning forward helps keep the airway open. The child is not in control just because he is leaning forward. Lying flat in bed will increase the respiratory distress. This position does not confirm asthma.

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9. A school nurse is planning care for a school-age child recently diagnosed with asthma. Which items will the school nurse include in the plan of care at the school?

**Standard Text:** Select all that apply.

1. Maintain a log of quick-relief medication administration.
2. Call the parents if quick-relief medications work appropriately.
3. Assess for symptoms of exercise-induced bronchospasm.
4. Coordinate education of the child's teachers.
5. Conduct a support group for all children with asthma.

**Correct Answer:** 1,3,4,5

**Rationale 1:** Appropriate interventions for the school nurse to include in the plan of care include: keeping a log of the quick-relief medications administered; assessing the child for exercise-induced bronchospasms and reporting, if needed; coordinating education of the child's teachers; and conducting a support group for all children in the school with asthma. The nurse would only call the parents if the quick-relief medication was not effective in treating the child's symptoms.

**Rationale 2:** Appropriate interventions for the school nurse to include in the plan of care include: keeping a log of the quick-relief medications administered; assessing the child for exercise-induced bronchospasms and reporting, if needed; coordinating education of the child's teachers; and conducting a support group for all children in the school with asthma. The nurse would only call the parents if the quick-relief medication was not effective in treating the child's symptoms.

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**Global Rationale:** Appropriate interventions for the school nurse to include in the plan of care include: keeping a log of the quick-relief medications administered; assessing the child for exercise-induced bronchospasms and reporting, if needed; coordinating education of the child's teachers; and conducting a support group for all children in the school with asthma. The nurse would only call the parents if the quick-relief medication was not effective in treating the child's symptoms.

### Chapter 3: Ulnar Fracture

1. Which is an accurate statement concerning a child's musculoskeletal system and how it may be different from adults?

- a. Growth occurs in children as a result of an increase in the number of muscle fibers.
- b. Infants are at greater risk for fractures because their epiphyseal plates are not fused.
- c. Because soft tissues are resilient in children, dislocations and sprains are less common than in adults.
- d. Their bones have less blood flow.

ANS: C

Because soft tissues are resilient in children, dislocations and sprains are less common than in adults. A child's growth occurs because of an increase in size rather than an increase in the number of the muscle fibers. Fractures in children younger than 1 year are unusual because a large amount of force is necessary to fracture their bones. A child's bones have greater blood flow than an adult's bones.

2. When infants are seen for fractures, which nursing intervention is a priority?

- a. No intervention is necessary. It is not uncommon for infants to fracture bones.
- b. Assess the family's safety practices. Fractures in infants usually result from falls.
- c. Assess for child abuse. Fractures in infants are often nonaccidental.
- d. Assess for genetic factors.

ANS: C

Fractures in infants warrant further investigation to rule out child abuse. Fractures in children younger than 1 year are not common because of the cartilaginous quality of the skeleton; a large amount of force is necessary to fracture their bones. Infants should be cared for in a safe environment and should not be falling. Fractures in infancy are usually nonaccidental rather than related to a genetic factor.

3. A mother whose 7-year-old child has been placed in a cast for a fractured right arm reports he will not stop crying even after taking Tylenol with codeine. He also will not straighten the fingers on his right arm. The nurse tells the mother to do which?

- a. Take him to the emergency department.
- b. Put ice on the injury.
- c. Avoid letting him get so tired.
- d. Wait another hour. If he is still crying, call back.

ANS: A

Unrelieved pain and the child's inability to extend his fingers are signs of compartmental syndrome, which requires immediate attention. Placing ice on the extremity is an inappropriate action for the presenting symptoms. It is inappropriate for the nurse to tell the mother who is concerned about her child to avoid letting him get so tired. A child who has signs and symptoms of compartmental syndrome should be seen immediately. Waiting an hour could compromise the recovery of the child.

4. When assessing a child for an upper extremity fracture, the nurse should know that these fractures most often result from:

- a. automobile accidents.
- b. falls.
- c. physical abuse.
- d. sports injuries.

ANS: B

The major cause of children's fractures is falls. Because of the protection reflexes, the outstretched arm often receives the full force of the fall. Automobile accidents, physical abuse, and sports injuries may result in fractures to any bone.

5. Which statement is most correct with regard to childhood musculoskeletal injuries?

- a. After the injury is iced, the swelling decreases, indicating the injury is not severe.
- b. The presence of localized tenderness indicates a more serious injury.
- c. The more swelling there is, the less severe the injury is.
- d. The less willing the child is to bear weight, the more serious the injury is.

ANS: D

An inability to bear weight on the affected extremity is indicative of a more serious injury. With a fracture, general manifestations include pain or tenderness at the site, immobility or decreased range of motion, deformity of the extremity, edema, and inability to bear weight. A decrease in swelling after icing does not identify the degree of the injury. Localized tenderness along with limited joint mobility may indicate serious injury, but an inability to bear weight on the extremity is a more reliable sign. The degree of swelling does not indicate how serious the injury is.

6. In caring for a child with a compound fracture, what should the nurse carefully assess for?

- a. Infection



- b. Osteoarthritis
- c. Epiphyseal disruption
- d. Periosteum thickening

ANS: A

Because the skin has been broken, the child is at risk for organisms to enter the wound. The incidence of osteoarthritis and the chance of epiphyseal disruption are not increased with compound fracture. Periosteum thickening is part of the healing process and is not a complication.

7. A child who has fractured his forearm is unable to extend his fingers. The nurse knows that this:

- a. is normal following this type of injury.
- b. may indicate compartmental syndrome.
- c. may indicate fat embolism.
- d. may indicate damage to the epiphyseal plate.

ANS: B

Swelling causes pressure to rise within the immobilizing device leading to compartmental syndrome. Signs include severe pain, often unrelieved by analgesics, and neurovascular impairment. It is not uncommon in the forearm, so the inability to extend the fingers may indicate compartmental syndrome. It is not normal that the child is unable to extend his fingers; this indicates neurovascular compromise of some type. Paresthesia or numbness or loss of feeling can indicate a neurovascular compromise and can result in paralysis. Fat embolism causes respiratory distress with hypoxia and respiratory acidosis. Paresthesia is not related to damage to the epiphyseal plate.

#### Chapter 4: Urinary Tract Infection and Pyelonephritis

##### **MULTIPLE CHOICE**

1. Which statement made by a school-age girl indicates the need for further teaching about the prevention of urinary tract infections?

- a. I always wear cotton underwear.
- b. I really enjoy taking a bubble bath.
- c. I go to the bathroom every 3 to 4 hours.
- d. I drink four to six glasses of fluid every day.

ANS: B

Bubble baths should be avoided because they tend to cause urethral irritation, which leads to urinary tract infection. It is desirable to wear cotton rather than nylon underwear. Nylon tends to

hold in moisture and promote bacterial growth, whereas cotton absorbs moisture. Children should be encouraged to urinate at least four times a day. An adequate fluid intake prevents the buildup of bacteria in the bladder.

2. The nurse assessing a child with acute poststreptococcal glomerulonephritis should be alert for which finding?

- a. Increased urine output
- b. Hypotension
- c. Tea-colored urine
- d. Weight gain

ANS: C

Acute poststreptococcal glomerulonephritis is characterized by hematuria, proteinuria, edema, and renal insufficiency. Tea-colored urine is an indication of hematuria. In acute poststreptococcal glomerulonephritis, the urine output may be decreased and the blood pressure increased. Edema may be noted around the eyelids and ankles in patients with acute poststreptococcal glomerulonephritis; however, weight gain is associated with nephrotic syndrome.

3. The mother of a child who was recently diagnosed with acute glomerulonephritis asks the nurse why the physician keeps talking about casts in the urine. The nurse's response is based on the knowledge that the presence of casts in the urine indicates:

- a. glomerular injury.
- b. glomerular healing.
- c. recent streptococcal infection.
- d. excessive amounts of protein in the urine.

ANS: A

The presence of red blood cell casts in the urine indicates glomerular injury. Casts in the urine are abnormal findings and are indicative of glomerular injury, not glomerular healing. A urinalysis positive for casts does not confirm a recent streptococcal infection. Casts in the urine are unrelated to proteinuria.

4. What is a clinical finding that warrants further intervention for the child with acute poststreptococcal glomerulonephritis?

- a. Weight loss to within 1 pound of the preillness weight
- b. Urine output of 1 milliliter per kilogram per hour
- c. A normal blood pressure
- d. Inspiratory crackles

ANS: D

Children with excess fluid volume may have pulmonary edema. Inspiratory crackles indicate fluid in the lungs. Pulmonary edema can be a life-threatening complication. Weight loss to within 1 pound of the preillness weight is an indication that the child is responding to treatment. A urine output of 1 milliliter per kilogram per hour is an acceptable urine output and indicates that the child is responding to treatment. A normal blood pressure is also an indication that the child is responding to treatment.

5. Which diagnostic finding is assessed by the nurse when a child has primary nephrotic syndrome?

- a. Hyperalbuminemia
- b. Positive ASO titer
- c. Leukocytosis
- d. Proteinuria

ANS: D

Large amounts of protein are lost through the urine as a result of an increased permeability of the glomerular basement membrane. Hypoalbuminemia is present because of loss of albumin through the defective glomerulus and the liver's inability to synthesize proteins to balance the loss. ASO titer is negative in a child with primary nephrotic syndrome. Leukocytosis is not a diagnostic finding in primary nephrotic syndrome.

6. Which finding indicates that a child receiving prednisone for primary nephrotic syndrome is in remission?

- a. Urine is negative for casts for 5 days.
- b. Urine is 0 to trace for protein for 5 to 7 days.
- c. Urine is negative for protein for 2 weeks.
- d. Urine is 0 to trace for blood for 1 week.

ANS: B

The child receiving steroids for the treatment of primary nephrotic syndrome is considered in remission when the urine is 0 to trace for protein for 5 to 7 days. The absence of casts in the urine gives no indication about the child's response to treatment. The child with primary nephrotic syndrome is considered to be in remission when the urine is negative for protein for 5 to 7 consecutive days. The absence of proteinuria for 2 consecutive weeks indicates a continued remission. The presence or absence of hematuria is not used to determine remission in primary nephrotic syndrome.

7. Which of the following statements made by a parent of a child with nephrotic syndrome indicates an understanding of a no-added-salt diet?

- a. I only give my child sweet pickles.
- b. My child just puts a little salt on his food.
- c. I let my child have slightly salted potato chips.
- d. I do not put any salt in foods when I am cooking.

ANS: D

A no-added-salt diet means that no salt should be added to foods, either when cooking or before eating. All types of pickles and potato chips are high in sodium and should not be served to the child on a no-added-salt diet. The child should not be allowed to use a salt shaker at meals when on a no-added-salt diet.

8. Which is an appropriate intervention for a child with nephrotic syndrome who is edematous?

- a. Teach the child to minimize body movements.
- b. Change the child's position every 2 hours.

- c. Avoid the use of skin lotions.
- d. Bathe every other day.

ANS: B

Frequent position changes decrease pressure on body parts and help relieve edema in dependent areas. The child with edema is at risk for impaired skin integrity. It is important for the child to change position frequently to prevent skin breakdown. Applying lotion to the skin helps to increase circulation. Bathing daily removes irritating body secretions from the skin.

9. A child with secondary enuresis who complains of dysuria or urgency should be evaluated for which condition?

- a. Hypocalciuria
- b. Nephrotic syndrome
- c. Glomerulonephritis
- d. Urinary tract infection

ANS: D

Complaints of dysuria or urgency from a child with secondary enuresis suggest the possibility of a urinary tract infection. An excessive loss of calcium in the urine (hypercalciuria) can be associated with complaints of painful urination, urgency, frequency, and wetting. Nephrotic syndrome is not usually associated with complaints of dysuria or urgency. Glomerulonephritis is not a likely cause of dysuria or urgency.

10. What should the nurse include in a teaching plan for the parents of a child with vesicoureteral reflux?

- a. Screening for urinary tract infection (UTI) if febrile
- b. Suggestions for how to maintain fluid restrictions
- c. The use of bubble baths as an incentive to increase bath time
- d. The need for the child to hold urine for 6 to 8 hours

ANS: A

A child with vesicoureteral reflux is screened for a UTI if febrile. Fluids are not restricted when a child has vesicoureteral reflux. In fact, fluid intake should be increased as a measure to prevent urinary tract infections. Bubble baths should be avoided to prevent urethral irritation and possible urinary tract infection. To prevent urinary tract infections, the child should be taught to void frequently and never resist the urge to urinate.

11. Which intervention is appropriate when examining a male infant for cryptorchidism?

- a. Cooling the examiners hands
- b. Taking a rectal temperature
- c. Placing the infant on the examination table
- d. Warming the room

ANS: D

For the infants comfort, the infant should be examined in a warm room with the examiners hands warmed. Testes can retract into the inguinal canal if the infant is upset or cold. Examining the infant with cold hands is uncomfortable for the infant and is likely to cause the infants testes to retract into the inguinal canal. It may also cause the infant to be uncooperative during the

examination. A rectal temperature yields no information about cryptorchidism. When possible, the infant should be examined in the caregivers lap to elicit cooperation and avoid upsetting the infant.

12. Parents ask the nurse, When should our child's hypospadias be corrected? The nurse responds based upon the knowledge that correction of hypospadias should be accomplished by the time the child is:

- a. 1 month of age.
- b. 6 to 8 months of age.
- c. school age.
- d. sexually mature.

ANS: B

The correction of hypospadias should ideally be accomplished by the time the child is 6 to 8 months of age and before toilet training. Surgery to correct hypospadias is not performed when the infant is less than 6 months of age. It is preferable for hypospadias to be surgically corrected before the child enters school so that the child has normal toileting behaviors in the presence of his peers. Corrective surgery for hypospadias is done long before sexual maturity.

13. A nurse is teaching a class on acute renal failure. The nurse relates that acute renal failure as a result of hemolytic-uremic syndrome is classified as:

- a. prerenal.
- b. intrarenal.
- c. postrenal.
- d. chronic.

ANS: B

Intrarenal acute renal failure is the result of damage to kidney tissue. Possible causes of intrarenal acute renal failure are hemolytic uremic syndrome, glomerulonephritis, and pyelonephritis. Prerenal acute renal failure is the result of decreased perfusion to the kidney. Possible causes include dehydration, septic and hemorrhagic shock, and hypotension. Postrenal acute renal failure results from obstruction of urine outflow. Conditions causing postrenal failure include ureteropelvic obstruction, ureterovesical obstruction, or neurogenic bladder. Renal failure caused by hemolytic-uremic syndrome is of the acute nature. Chronic renal failure is an irreversible loss of kidney function, which occurs over months or years.

14. Which dietary modification is appropriate for a child with chronic renal failure?

- a. Decreased salt
- b. Decreased fat
- c. Increased potassium
- d. Increased phosphorus

ANS: A

Salt is restricted to prevent fluid overload and hypertension. A low-fat diet is not relevant to chronic renal failure. Potassium intake may be restricted because of the kidneys inability to remove it. Phosphorus is restricted to help prevent bone disease.

15. Which condition is characterized by a history of bloody diarrhea, fever, abdominal pain, and low hemoglobin and platelet counts?

- a. Acute viral gastroenteritis
- b. Acute glomerulonephritis
- c. Hemolytic-uremic syndrome
- d. Acute nephrotic syndrome

ANS: C

Hemolytic-uremic syndrome is an acute disorder characterized by anemia, thrombocytopenia, and acute renal failure. Most affected children have a history of gastrointestinal symptoms, including bloody diarrhea. Anemia and thrombocytopenia are not associated with acute gastroenteritis. The symptoms described are not suggestive of acute glomerulonephritis or nephrotic syndrome.

16. Which is a true statement describing the differences in the pediatric genitourinary system compared with the adult genitourinary system?

- a. The young infants kidneys can more effectively concentrate urine than can an adults kidneys.
- b. After 6 years of age, kidney function is nearly like that of an adult.
- c. Unlike adults, most children do not regain normal kidney function after acute renal failure.
- d. Young children have shorter urethras, which can predispose them to urinary tract infections.

ANS: D

Young children have shorter urethras, which can predispose them to urinary tract infections. The young infants kidneys cannot concentrate urine as efficiently as those of older children and adults because the loop of Henle is not yet long enough to reach the inner medulla, where concentration and reabsorption occur. By 6 to 12 months of age, kidney function is nearly like that of an adult. Unlike adults, most children with acute renal failure regain normal function.

#### **MULTIPLE RESPONSE**

1. A nurse is planning care for a child admitted with nephrotic syndrome. Which interventions should be included in the plan of care? Select all that apply.

- a. Administration of antihypertensive medications
- b. Daily weights
- c. Salt-restricted diet
- d. Frequent position changes
- e. Teach parents to expect tea-colored urine

ANS: B, C, D

A child with nephrotic syndrome will need to be monitored closely for fluid excess so daily weights are important. The diet is salt restricted to prevent further retention of fluid. Because of the fluid excess, frequent position changes are required to prevent skin breakdown. Nephrotic syndrome does not require antihypertensive medications. These are administered for acute glomerulonephritis. Tea-colored urine is expected with acute glomerulonephritis, but not nephrotic syndrome. The urine in nephrotic syndrome is frothy indicating protein is being lost in the urine.

2. A nurse is assessing an infant for urinary tract infection (UTI). Which assessment findings should the nurse expect? Select all that apply.

- a. Change in urine odor or color
- b. Enuresis
- c. Fever or hypothermia
- d. Voiding urgency
- e. Poor weight gain

ANS: A, C, E

The signs of a UTI in an infant include fever or hypothermia, irritability, dysuria as evidenced by crying when voiding, change in urine odor or color, poor weight gain and feeding difficulties. Enuresis and voiding urgency would be assessed in an older child.

## Chapter 5: Gastroenteritis, Fever, and Dehydration

### MULTIPLE CHOICE

1. Which is the best nursing response to a mother asking about the cause of her infant's bilateral cleft lip?

- a. Did you have trouble with this pregnancy?
- b. Do you know of anyone in your or the father's family born with cleft lip or palate problems?
- c. This defect is associated with intrauterine infection during the second trimester.
- d. Was your husband in the military and involved in chemical warfare?

ANS: B

Cleft lip and palate result from embryonic failure resulting from multiple genetic and environmental factors. A genetic pattern or familial risk seems to exist. A troublesome pregnancy has not been associated with bilateral cleft lip. The defect occurred at approximately 6 to 8 weeks of gestation. Second-trimester intrauterine infection is not a known cause of bilateral cleft lip. Chemical warfare is not significantly associated with bilateral cleft lip and palate.

2. Which nursing intervention is most helpful to parents of a neonate with bilateral cleft lip?

- a. Assure the parents that the correction will be immediate and uncomplicated.
- b. Show the parents before-and-after pictures of an infant whose cleft lip has been successfully repaired.
- c. Teach the parents about long-term enteral feedings.
- d. Refer the parents to a community agency that addresses this problem.

ANS: B

Showing the parents pictures of successful lip repair promotes bonding and enhances coping ability. Correction is usually done around 4 weeks but may be done as early as 2 to 3 days after birth. The infant with a bilateral cleft lip can be fed orally using a compressible, longer nipple, and by making a larger hole in the nipple. Long-term enteral feedings are not usually indicated. A community agency referral is not appropriate at this time and may not be indicated long term.

3. The postoperative care plan for an infant with surgical repair of a cleft lip includes which intervention?

- a. A clear liquid diet for 72 hours
- b. Nasogastric feedings until the sutures are removed
- c. Elbow restraints to keep the infants fingers away from the mouth
- d. Rinsing the mouth after every feeding

ANS: C

Keeping the infants hands away from the incision reduces potential complications at the surgical site. The infants diet is advanced from clear liquid to soft foods within 48 hours of surgery. After surgery, the infant can resume preoperative feeding techniques. Rinsing the mouth after feeding is an inappropriate intervention. Feeding a small amount of water after feedings will help keep the mouth clean. A cleft lip repair site should be cleansed with a wet sterile cotton swab after feedings.

4. A nurse is teaching a group of parents about tracheoesophageal fistula. Which statement, made by the nurse, is accurate about tracheoesophageal fistula (TEF)?

- a. This defect results from an embryonal failure of the foregut to differentiate into the trachea and esophagus.
- b. It is a fistula between the esophagus and stomach that results in the oral intake being refluxed and aspirated.
- c. An extra connection between the esophagus and trachea develops because of genetic abnormalities.
- d. The defect occurs in the second trimester of pregnancy.

ANS: A

When the foregut does not differentiate into the trachea and esophagus during the fourth to fifth week of gestation, a TEF occurs. TEF is an abnormal connection between the esophagus and trachea. There is no connection between the trachea and esophagus in normal fetal development. Tracheoesophageal fistula occurs early in pregnancy during the fourth to fifth week of gestation.

5. Which maternal assessment is related to the infants diagnosis of TEF?

- a. Maternal age more than 40 years
- b. First term pregnancy for the mother
- c. Maternal history of polyhydramnios
- d. Complicated pregnancy

ANS: C

A maternal history of polyhydramnios is associated with TEF. Advanced maternal age is not a risk factor for TEF. The first term pregnancy is not a risk factor for an infant with TEF. Complicated pregnancy is not a risk factor for TEF.

6. What clinical manifestation should a nurse should be alert for when a diagnosis of esophageal atresia is suspected?

- a. A radiograph in the prenatal period indicates abnormal development.
- b. It is visually identified at the time of delivery.



- c. A nasogastric tube fails to pass at birth.
- d. The infant has a low birth weight.

ANS: C

Atresia is suspected when a nasogastric tube fails to pass 10 to 11 centimeters beyond the gum line. Abdominal radiographs will confirm the diagnosis. Prenatal radiographs do not provide a definitive diagnosis. The defect is not externally visible. Bronchoscopy and endoscopy can be used to identify this defect. Infants with esophageal atresia may have been born prematurely and with a low birth weight, but neither is suggestive of the presence of an esophageal atresia.

7. The nurse admits an infant with vomiting and the diagnosis of hypertrophic pyloric stenosis. Which metabolic alteration should the nurse plan to assess for with this infant?

- a. Metabolic alkalosis
- b. Metabolic acidosis
- c. Respiratory acidosis
- d. Respiratory alkalosis

ANS: A

Frequent projectile vomiting, characteristic of pyloric stenosis, results in a loss of nonvolatile acids that decreases hydrogen ion concentration. This results in an excess of bicarbonate that increases arterial pH above 7.45 (metabolic alkalosis). Metabolic acidosis, respiratory acidosis, and respiratory alkalosis do not result from vomiting.

8. What is the most important information to be included in the discharge planning for an infant with gastroesophageal reflux?

- a. Teach the parents to position the infant on the left side.
- b. Reinforce the parents knowledge of the infants developmental needs.
- c. Teach the parents how to do infant cardiopulmonary resuscitation (CPR).
- d. Have the parents keep an accurate record of intake and output.

ANS: C

Risk of aspiration is a priority nursing diagnosis for the infant with gastroesophageal reflux. The parents must be taught infant CPR. Correct positioning minimizes aspiration. The correct position for the infant is on the right side after feeding and supine for sleeping. Knowledge of developmental needs should be included in discharge planning for all hospitalized infants but is not the most important in this case. Keeping a record of intake and output is not a priority and may not be necessary.

9. Which information does the nurse include when teaching the parents of a 5-week-old infant about pyloromyotomy?

- a. The infant will be in the hospital for a week.
- b. The surgical procedure is routine and no big deal.
- c. The prognosis for complete correction with surgery is good.
- d. They will need to ask the physician about home care nursing.

ANS: C

Pyloromyotomy is the definitive treatment for pyloric stenosis. Prognosis is good with few complications. These comments reassure parents. The infant will remain in the hospital for a day

or two postoperatively. Although the prognosis for surgical correction is good, telling the parents that surgery is no big deal minimizes the infant's condition. Home care nursing is not necessary after pyloromyotomy.

10. A nurse has admitted a child to the hospital with a diagnosis of rule out peptic ulcer disease. Which test will the nurse expect to be ordered to confirm the diagnosis of a peptic ulcer?

- a. A 24-hour dietary history
- b. A positive Hematest result on a stool sample
- c. A fiberoptic upper endoscopy
- d. An abdominal ultrasound

ANS: C

Endoscopy provides direct visualization of the stomach lining and confirms the diagnosis of peptic ulcer. Dietary history may yield information suggestive of a peptic ulcer, but the diagnosis is confirmed through endoscopy. Blood in the stool indicates a gastrointestinal abnormality, but it does not conclusively confirm a diagnosis of peptic ulcer. An abdominal ultrasound is used to rule out other gastrointestinal alterations such as gallstones, tumor, or mechanical obstruction.

11. What should the nurse teach a school-age child and his parents about the management of ulcer disease?

- a. Eat a bland, low-fiber diet in small frequent meals.
- b. Eat three balanced meals a day with no snacking between meals.
- c. The child needs to eat alone to avoid stress.
- d. Do not give antacids 1 hour before or after antiulcer medications.

ANS: D

Antacids can interfere with antiulcer medication if given less than 1 hour before or after antiulcer medications. A bland diet is not indicated for ulcer disease. The diet should be a regular diet that is low in caffeine, and the child should eat a meal or snack every 2 to 3 hours. Eating alone is not indicated.

12. Which prescribed formula should the nurse plan to provide for an infant with lactose intolerance?

- a. Isomil
- b. Enfamil
- c. Similac
- d. Good Start

ANS: A

The treatment for lactose intolerance is removal of lactose from the diet. Formulas that do not contain lactose (Isomil, Nursoy, Nutramigen, Prosobee, and other soy-based formulas) may be given to the infant suspected of having lactose intolerance. Enfamil, Similac, and Good Start are all milk-based formulas.

13. Which dietary foods high in calcium should the nurse encourage a lactose intolerant child to eat?

- a. Yogurt
- b. Green leafy vegetables

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c. Cheese

d. Rice

ANS: B

The child between 1 and 10 years requires a minimum of 800 milligrams of calcium daily. Because high-calcium dairy products containing lactose are restricted from the child's diet, alternate sources such as egg yolk, green leafy vegetables, dried beans, and cauliflower must be provided to prevent hypocalcemia. Yogurt and cheese contain lactose. Rice is not high in calcium.

14. Which food choice by a parent of a 2-year-old child with celiac disease indicates a need for further teaching?

a. Oatmeal

b. Rice cake

c. Corn muffin

d. Meat patty

ANS: A

The child with celiac disease is unable to fully digest gluten, the protein found in wheat, barley, rye, and oats. Oatmeal contains gluten and is not an appropriate food selection. Rice is an appropriate choice because it does not contain gluten. Corn is digestible because it does not contain gluten. Meats do not contain gluten and can be included in the diet of a child with celiac disease.

15. Which assessment finding should the nurse expect in an infant with Hirschsprungs disease?

a. Currant jelly stools

b. Constipation with passage of foul-smelling, ribbon-like stools

c. Foul-smelling, fatty stools

d. Diarrhea

ANS: B

Constipation results from the absence of ganglion cells in the rectum and colon and is present since the neonatal period with passage of frequent foul-smelling, ribbon-like, or pellet-like stools. Currant jelly stools are associated with intussusception. Foul-smelling, fatty stools are associated with cystic fibrosis and celiac disease. Diarrhea is not typically associated with Hirschsprungs disease but may result from impaction.

16. Which would be an expected outcome for the parents of a child with encopresis?

a. The parents will give the child an enema daily for 34 months.

b. The parents will develop a plan to achieve control over incontinence.

c. The parents will have the child launder soiled clothes.

d. The parents will supply the child with a low-fiber diet.

ANS: B

Parents of the child with encopresis often feel guilty and believe that encopresis is willful on the part of the child. The family functions effectively by openly discussing problems and developing a plan to achieve control over incontinence. Stool softeners or laxatives, along with dietary changes, are typically used to treat encopresis. Enemas are indicated when a fecal impaction is

present. Having the child launder soiled clothes is a punishment and will increase the child's shame and embarrassment. The child should not be punished for an action that is not willful. Increasing fiber in the diet and fluid intake results in greater bulk in the stool, making it easier to pass.

17. Which intervention should be included in the nurse's plan of care for a 7-year-old child with encopresis who has cleared the initial impaction?

- a. Have the child sit on the toilet 30 minutes when he gets up in the morning and at bedtime.
- b. Increase sugar in the child's diet to promote bowel elimination.
- c. Use a Fleet enema daily.
- d. Give the child a choice of beverage to mix with a laxative.

ANS: D

Offering realistic choices is helpful in meeting the school-age child's sense of control. To facilitate bowel elimination, the child should sit on the toilet for 5 to 10 minutes after breakfast and dinner. Decreasing the amount of sugar in the diet will help keep stools soft. Daily Fleet enemas can result in hypernatremia and hyperphosphatemia and are used only during periods of fecal impaction.

18. A nurse is assisting a child with inflammatory bowel disease to choose items from the dietary menu. Which dietary item should be avoided because it is high in residue?

- a. Eggs
- b. Cheese
- c. Grapes
- d. Jello

ANS: C

Fruits with skins or seeds should be avoided because they are high in residue. Cooked or canned fruits and vegetables without skins are allowed. Eggs, cheese, and Jello would be allowed on a low residue diet.

19. What is an expected outcome for the child with irritable bowel disease?

- a. Decreasing symptoms
- b. Adherence to a low-fiber diet
- c. Increasing milk products in the diet
- d. Adapting the lifestyle to the lifelong problems

ANS: A

Management of irritable bowel disease is aimed at identifying and decreasing exposure to triggers and decreasing bowel spasms, which will decrease symptoms. Management includes maintenance of a healthy, well-balanced, moderate-fiber, lower-fat diet. A moderate amount of fiber in the diet is indicated for the child with irritable bowel disease. No modification in dairy products is necessary unless the child is lactose intolerant. Irritable bowel syndrome is typically self-limiting and resolves by age 20 years.

20. An infant has been admitted to the Neonatal Intensive Care Unit (NICU) with a congenital gastroschisis. Which intervention should the nurse perform first upon admission to the unit?

- a. Place the infant flat and prone.
- b. Cover the defect with sterile warm, moist gauze and wrap with plastic.
- c. Begin a gestational age assessment.
- d. Wrap the infant in a warm blanket and allow the father to hold the infant briefly.

ANS: B

Gastroschisis is the protrusion of intraabdominal contents through a defect in the abdominal wall lateral to the umbilical ring. There is no peritoneal sac. The defect should be immediately wrapped in warm, moist, sterile gauze and covered with plastic to keep moist. The infant cannot be placed prone as more damage could occur to the defect. Movement of the infant should be minimized so gestational age assessment and parental holding would be done after the infant is stabilized.

21. What is an appropriate statement for the nurse to make to parents of a child who has had a barium enema to correct an intussusception?

- a. I will call the physician when the baby passes his first stool.
- b. I am going to dilate the anal sphincter with a gloved finger to help the baby pass the barium.
- c. I would like you to save all the soiled diapers so I can inspect them.
- d. Add cereal to the babys formula to help him pass the barium.

ANS: C

The nurse needs to inspect diapers after a barium enema because it is important to document the passage of barium and note the characteristics of the stool. The physician does not need to be notified when the infant passes the first stool. Dilating the anal sphincter is not appropriate for the child after a barium enema. After reduction, the infant is given clear liquids and the diet is gradually increased.

22. Which is the best response for the nurse to make to parents who ask why their infant has a nasogastric tube to intermittent suction after abdominal surgery?

- a. The nasogastric tube decompresses the abdomen and decreases vomiting.
- b. We can keep a more accurate measure of intake and output with the nasogastric tube.
- c. The tube is used to decrease postoperative diarrhea.
- d. Believe it or not, the nasogastric tube makes the baby more comfortable after surgery.

ANS: A

The nasogastric tube provides decompression and decreases vomiting. A nursing responsibility when a patient has a nasogastric tube is measurement of accurate intake and output, but this is not why nasogastric tubes are inserted. Nasogastric tube placement does not decrease diarrhea. The presence of a nasogastric tube can be perceived as a discomfort by the patient.

23. Which stool characteristic should the nurse expect to assess with a child diagnosed with intussusception?

- a. Ribbon-like stools
- b. Hard stools positive for guaiac
- c. Currant jelly stools
- d. Loose, foul-smelling stools

ANS: C

Pressure on the bowel from obstruction leads to passage of currant jelly stools. Ribbon-like stools are characteristic of Hirschsprungs disease. With intussusception, passage of bloody mucus stools occurs. Stools will not be hard. Loose, foul-smelling stools may indicate infectious gastroenteritis.

24. Which is a priority concern for a 14-year-old child with inflammatory bowel disease?

- a. Compliance with antidiarrheal medication therapy
- b. Long-term complications
- c. Dealing with the embarrassment and stress of diarrhea
- d. Home schooling

ANS: C

Embarrassment and stress from chronic diarrhea are real concerns for the adolescent with inflammatory bowel disease. Antidiarrheal medications are not typically ordered for a child with inflammatory bowel disease. Long-term complications are not a priority concern for the adolescent with inflammatory bowel disease. Exacerbations may interfere with school attendance, but home schooling is not a usual consideration for the adolescent with inflammatory bowel disease.

25. A nurse is conducting a teaching session to adolescents about Crohns disease. Which statement, made by the nurse, is the most accurate?

- a. Crohns disease is responsive to dietary modifications.
- b. Crohns disease can occur anywhere in the gastrointestinal tract.
- c. Edema usually accompanies this disease.
- d. Symptoms of Crohns disease usually disappear by late adolescence.

ANS: B

Crohns disease can occur anywhere in the GI tract from the mouth to the anus and is most common in the terminal ileum. Maintaining a low-fiber, low-residue, and milk-free diet may give the child some relief; however, strict restrictions may not alleviate symptoms. Diarrhea and malabsorption from Crohns disease cause weight loss, anorexia, dehydration, and growth failure. Edema does not accompany this disease. Crohns disease is a long-term health problem.

Symptoms do not typically disappear by adolescence.

26. A child is admitted to the pediatric floor for appendicitis. Which assessment finding will the nurse monitor that indicates the appendix has ruptured?

- a. Abdominal pain shifts from the left to the right side.
- b. Vomiting and diarrhea become more intense.
- c. Elevated temperature decreases to normal.
- d. Abdominal pain is relieved.

ANS: D

Abdominal pain is relieved when appendix rupture occurs. Pain in the right lower quadrant is suggestive of appendicitis. Abdominal pain does not shift from one side to the other. The child with appendicitis may have vomiting and diarrhea. A rupture does not intensify symptoms. Because peritonitis is associated with a ruptured appendix, the temperature would be elevated in the presence of infection.

27. What is the most important action to prevent the spread of gastroenteritis in a daycare setting?

- a. Administering prophylactic medications to children and staff
- b. Frequent hand washing
- c. Having parents bring food from home
- d. Directing the staff to wear gloves at all times

ANS: B

Hand washing is the most the important measure to prevent the spread of infectious diarrhea. Prophylactic medications are not helpful in preventing gastroenteritis. Bringing food from home will not prevent the spread of infectious diarrhea. Gloves should be worn when changing diapers, soiled clothing, or linens. They do not need to be worn for interactions that do not involve contact with secretions.

28. What is an expected outcome for a 1-month-old infant with biliary atresia?

- a. Correction of the defect with the Kasai procedure
- b. Adequate nutrition and age-appropriate growth and development
- c. Increased blood pressure and adherence to a salt-free diet
- d. Adequate protein intake

ANS: B

Adequate nutrition, preventing skin breakdown, adequate growth and development, and family education and support are expected outcomes in an infant with biliary atresia. The goal of the Kasai procedure is to allow for adequate growth until a transplant can be done. It is not a curative procedure. Although blood pressure typically is elevated, a modified salt diet is appropriate. Protein intake may need to be restricted to avoid hepatic encephalopathy.

29. Which assessment findings would be significant for a child with cirrhosis?

- a. Weight loss
- b. Change in level of consciousness
- c. Soft, smooth skin
- d. Pallor and cyanosis

ANS: B

The child with cirrhosis must be assessed for encephalopathy, which is characterized by a change in level of consciousness. Encephalopathy can result from a buildup of ammonia in the blood from the incomplete breakdown of protein. One complication of cirrhosis is ascites. The child needs to be assessed for increasing abdominal girth and edema. A child who is retaining fluid will not exhibit weight loss. Biliary obstruction can lead to intense pruritus. The skin will be irritated from frequent scratching. A skin assessment would likely reveal jaundice. Pallor and cyanosis are associated with a cardiac problem.

30. Which nursing diagnosis has the highest priority for the child with celiac disease?

- a. Pain related to chronic constipation
- b. Altered growth and development related to obesity
- c. Fluid volume excess related to celiac crisis

- 
- d. Imbalanced nutrition: Less than body requirements related to malabsorption

ANS: D

Imbalanced nutrition: Less than body requirements related to malabsorption is the highest priority nursing diagnosis because celiac disease causes gluten enteropathy, a malabsorption condition. The pain associated with celiac disease is associated with diarrhea, not constipation. Celiac disease causes altered growth and development associated with malnutrition, not obesity. Celiac crisis causes fluid volume deficit.

31. The nurse notes on assessment that a 1-year-old child is underweight, with abdominal distention, thin legs and arms, and foul-smelling stools. The nurse suspects failure to thrive associated with which condition?

- 
- a. Celiac disease
- 
- b. Intussusception
- 
- c. Irritable bowel syndrome
- 
- d. Imperforate anus

ANS: A

These are classic symptoms of celiac disease. Intussusception is not associated with failure to thrive or underweight, thin legs and arms, and foul-smelling stools. Stools are like currant jelly. Irritable bowel syndrome is characterized by diarrhea and pain, and the child does not typically have thin legs and arms. Imperforate anus is the incomplete development or absence of the anus in its normal position in the perineum. Symptoms are evident in early infancy.

32. A 10-year-old boy is admitted to the hospital with a diagnosis of appendicitis. He is nauseated, febrile, and complaining of severe abdominal pain radiating to the right lower quadrant. During a routine nursing check, he states that his stomach doesn't hurt anymore. The nurse should suspect that:

- 
- a. he is anxious about surgery.
- 
- b. his appendix has ruptured.
- 
- c. he does not communicate effectively about pain.
- 
- d. his nausea and vomiting have decreased, thereby relieving his abdominal pain.

ANS: B

A classic symptom indicating appendix rupture is the sudden relief of pain. The boy may be anxious, but this will not cause his pain to disappear. There is no evidence to substantiate the assumption that he does not communicate effectively about pain. His nausea and vomiting have not decreased, nor will this affect his abdominal pain.

33. The nurse caring for a child with suspected appendicitis should question which physician prescriptions?

- 
- a. Keep patient NPO.
- 
- b. Start IV of D5/0.45 normal saline at 60 mL/hr.
- 
- c. Apply K-pad to abdomen prn for pain.
- 
- d. Obtain CBC on admission to the nursing unit.

ANS: C



A K-pad (moist heat device) is contraindicated for suspected appendicitis because it may contribute to the rupture of the appendix. NPO status is appropriate for the potential appendectomy client. An IV is appropriate both as a preoperative intervention and to compensate for the short-term NPO status. Because appendicitis is frequently reflected in an elevated WBC, laboratory data are needed.

34. Which order should the nurse question when caring for a child after surgery for Hirschsprungs disease?

- a. Monitor rectal temperature every 4 hours and report an elevation greater than 38.5 C.
- b. Assess stools after surgery.
- c. Keep the child NPO until bowel sounds return.
- d. Maintain IV fluids at an ordered rate.

ANS: A

Rectal temperatures should not be taken after this surgery. Rectal temperatures are generally not the route of choice for children because of the routes traumatic nature. Assessing stools after surgery is an appropriate intervention postoperatively. Stools should be soft and formed. Keeping the child NPO until bowel sounds return is an appropriate intervention postoperatively. Maintaining IV fluids at an ordered rate is an appropriate postoperative order.

35. Which diagnosis has the highest priority for the child with irritable bowel syndrome?

- a. Alteration in nutrition: Less than body requirements related to malabsorption
- b. Altered growth and development related to inadequate nutrition
- c. Pain related to hyperperistalsis
- d. Constipation related to maldigestion

ANS: C

Diffuse abdominal pain unrelated to activity or meals is a common clinical manifestation of irritable bowel syndrome. Normal physical growth and development usually occur with this disorder. Constipation may occur with irritable bowel syndrome, usually alternating with diarrhea.

36. A 7-year-old child is admitted to the hospital with severe abdominal pain, bloody currant jelly diarrhea, and fever. What is his probable diagnosis?

- a. Hirschsprungs disease
- b. Celiac disease
- c. Ruptured appendix
- d. Intussusception

ANS: D

Severe abdominal pain, bloody currant jelly diarrhea, and fever are common clinical manifestations of intussusception. Hirschsprungs disease usually manifests as bowel obstruction. Severe abdominal pain, bloody currant jelly diarrhea, and fever are not common symptoms of celiac disease. Although a child with a ruptured appendix will probably be febrile, the other symptoms are not indicative of a ruptured appendix.

37. Which goal has the highest priority for a child with malabsorption associated with lactose intolerance?

- a. The child will experience no abdominal spasms.
- b. The child will not experience constipation associated with malabsorption syndrome.
- c. The child will not experience diarrhea associated with malabsorption syndrome.
- d. The child will receive adequate nutrition as evidenced by a weight gain of 1 kg/day.

ANS: C

The highest priority goal is that the child will not experience diarrhea associated with malabsorption syndrome; this goal is correct for a child with malabsorption associated with lactose intolerance. A child usually has abdominal cramping, pain, and distention rather than spasms. The child usually has diarrhea, not constipation. One kilogram a day is too much weight gain with no time parameters.

38. What would be an appropriate meal for a school-age child with celiac disease?

- a. Baked chicken and cornbread
- b. Hot dog and bun
- c. Bean with barley soup and rice cakes
- d. Cheeseburger on rye bread

ANS: A

Children with celiac disease must eliminate all wheat, rye, barley, oats, and hydrolyzed vegetable proteins from their diet. Cornbread does not contain glutens. Most buns, barley, and rye bread contain glutens.

39. What should the nurse stress in a teaching plan for the mother of an 11-year-old boy with ulcerative colitis?

- a. Preventing the spread of illness to others
- b. Nutritional guidance and preventing constipation
- c. Teaching daily use of enemas
- d. Coping with stress and adjusting to a chronic illness

ANS: D

Coping with the stress of a chronic illness and the clinical manifestations associated with ulcerative colitis (diarrhea, pain) are important teaching foci. Ulcerative colitis is not infectious. Although nutritional guidance is a priority teaching focus, diarrhea is a problem with ulcerative colitis, not constipation. Teaching daily use of enemas is not part of the therapeutic plan of care.

40. An infant with Hirschsprungs disease has a temporary colostomy. Which statement by the infants mother indicates she understands how to care for the infants colostomy at home?

- a. I need to be careful to check the skin around the colostomy for breakdown and be sure I keep it clean.
- b. Ill call my home health nurse if the colostomy bag needs to be changed.
- c. Ill call the doctor if I notice that the colostomy stoma is pink.
- d. Ill have my mother help me with the care of the colostomy.

ANS: A

Preventing skin breakdown is a priority concern when caring for a colostomy. The mother should be taught the basics of colostomy care, including how to change the appliance. The colostomy

stoma should be pink in color, not pale or discolored. There is no evidence that her mother knows how to care for a colostomy.

41. Careful hand washing before and after contact can prevent the spread of \_\_\_\_\_ in day care and school settings.

- a. irritable bowel syndrome
- b. ulcerative colitis
- c. hepatic cirrhosis
- d. hepatitis A

ANS: D

Hepatitis A is spread person to person, by the fecal-oral route and through contaminated food or water. Good hand washing is critical in preventing its spread. The virus can survive on contaminated objects for weeks. Irritable bowel syndrome is the result of increased intestinal motility and is not contagious. Ulcerative colitis and cirrhosis are not infectious.

#### **MULTIPLE RESPONSE**

1. Which interventions should a nurse implement when caring for a child with hepatitis? Select all that apply.

- a. Provide a well-balanced low-fat diet.
- b. Schedule play time in the playroom with other children.
- c. Teach parents not to administer any over-the-counter medications.
- d. Arrange for home schooling as the child will not be able to return to school.
- e. Instruct parents on the importance of good hand washing.

ANS: A, C, E

The child with hepatitis should be placed on a well-balanced low-fat diet. Parents should be taught to not give over-the-counter medications because of impaired liver function. Hand hygiene is the most important preventive measure for the spread of hepatitis. The child will be in contact isolation in the hospital so play time with other hospitalized children is not scheduled. The child will be on contact isolation for at least 1 week after the onset of jaundice, but after that period, will be allowed to return to school.

2. The nurse is providing home care instructions to the parents of an infant being discharged after repair of a bilateral cleft lip. Which instructions should the nurse include? Select all that apply.

- a. Acetaminophen (Tylenol) should not be given to your infant.
- b. Feed your infant in an upright position.
- c. Place your infant prone for a period of time each day.
- d. Burp your child frequently during feedings.
- e. Apply antibiotic ointment to the lip as prescribed.

ANS: B, D, E

After cleft lip surgery the parents are taught to feed the infant in an upright position to decrease the chance of choking. The parents are taught to burp the infant frequently during feedings because excess air is often swallowed. Parents are taught to cleanse the suture line area with a cotton swab using a rolling motion and apply antibiotic ointment with the same technique.

Tylenol is used for pain and the child should never be placed prone as that can damage the suture line.

## Chapter 6: Leukemia

1. The nurse should base a response to a parents question about the prognosis of acute lymphoblastic leukemia (ALL) on which information?

- a. Leukemia is a fatal disease although chemotherapy provides increasingly longer periods of remission.
- b. Research to find a cure for childhood cancers is very active.
- c. The majority of children go into remission and remain symptom free when treatment is completed.
- d. It usually takes several months of chemotherapy to achieve a remission.

ANS: C

Children diagnosed with the most common form of leukemia, ALL, can almost always achieve remission, with a 5-year disease-free survival rate approaching 85%. With the majority of children surviving 5 years or longer, it is inappropriate to refer to leukemia as a fatal disease. Although research to find a cure for childhood cancers is very active, it does not address the parents concern. About 95% of children achieve remission within the first month of chemotherapy. If significant numbers of blast cells are still present in the bone marrow after a month of chemotherapy, a new and stronger regimen is begun.

2. Bone marrow transplantation is the standard treatment for which childhood cancer?

- a. Acute lymphoblastic leukemia (ALL)
- b. Non-Hodgkins lymphoma
- c. Wilms tumor
- d. Acute myeloblastic leukemia (AML)

ANS: D

Bone marrow transplantation is currently the standard treatment for children in their first remission with AML. The standard treatment for ALL is combination chemotherapy. The standard treatment for non-Hodgkins lymphoma is chemotherapy. Bone marrow transplantation is used to treat non-Hodgkins lymphoma that is resistant to conventional chemotherapy and radiation. The treatment for Wilms tumor consists of surgery and chemotherapy alone or in combination with radiation therapy.

3. A child with a history of fever of unknown origin, excessive bruising, lymphadenopathy, and fatigue is exhibiting symptoms most suggestive of which condition?

- a. Ewings sarcoma
- b. Wilms tumor
- c. Neuroblastoma

- 
- d. Leukemia

ANS: D

Symptoms of a history of fever of unknown origin, excessive bruising, lymphadenopathy, and fatigue reflect bone marrow failure and organ infiltration, which occur in leukemia. Symptoms of Ewings sarcoma involve pain and soft tissue swelling around the affected bone. Wilms tumor usually manifests as an abdominal mass with abdominal pain and may include renal symptoms, such as hematuria, hypertension, and anemia. Neuroblastoma manifests primarily as an abdominal, chest, bone, or joint mass. Symptoms are dependent on the extent and involvement of the tumor.

4. Which nursing diagnosis is a priority for the 4-year-old child newly diagnosed with leukemia?

- 
- a. Ineffective breathing pattern related to mediastinal disease
- 
- b. Risk for infection related to immunosuppressed state
- 
- c. Disturbed body image related to alopecia
- 
- d. Impaired skin integrity related to radiation therapy

ANS: B

Leukemia is characterized by the proliferation of immature white blood cells, which lack the ability to fight infection. An ineffective breathing pattern related to mediastinal disease would apply to a child with non-Hodgkins lymphoma or any cancer involving the chest area. Disturbed body image related to alopecia is a nursing diagnosis related to chemotherapy, but it is not of the highest priority. Not all children have a body image disturbance as a result of alopecia, especially not preschoolers. This would be of more concern to an adolescent. Radiation therapy is not a treatment for leukemia.

8. A nurse determines that parents understood the teaching from the pediatric oncologist if the parents indicate that which test confirms the diagnosis of leukemia in children?

- 
- a. Complete blood cell count (CBC)
- 
- b. Lumbar puncture
- 
- c. Bone marrow biopsy
- 
- d. Computed tomography (CT) scan

ANS: C

The confirming test for leukemia is microscopic examination of bone marrow obtained by bone marrow aspiration and biopsy. A CBC may show blast cells that would raise suspicion of leukemia. It is not a confirming diagnostic study. A lumbar puncture is done to check for central nervous system involvement in the child who has been diagnosed with leukemia. A CT scan may be done to check for bone involvement in the child with leukemia. It does not confirm a diagnosis.

5. Which statement made by a nurse to the parents of a child with leukemia should be included in discharge instructions?

- 
- a. Your sons blood pressure must be taken daily while he is on chemotherapy.
- 
- b. Limit your sons fluid intake just in case he has central nervous system (CNS) involvement.
- 
- c. Your son must receive all of his immunizations in a timely manner.

- 
- d. Your sons temperature should be taken daily.

ANS: D

An elevated temperature may be the only sign of an infection in an immunosuppressed child. Parents should be instructed to monitor their child's temperature daily because of the risk for infection, but it is not necessary to take a blood pressure daily. Fluid is never withheld as a precaution against increased intracranial pressure. If a child had confirmed CNS involvement with increased intracranial pressure, limiting fluid intake might be more appropriate. Children who are immunosuppressed should not receive any live virus vaccines.

6. What is the most appropriate nursing action when the nurse notes a reddened area on the forearm of a neutropenic child with leukemia?

- 
- a. Massage the area.
- 
- b. Turn the child more frequently.
- 
- c. Document the finding and continue to observe the area.
- 
- d. Notify the physician immediately.

ANS: D

Any signs of infection in a child who is immunosuppressed must be reported immediately because it is considered a medical emergency. When a child is neutropenic, pus may not be produced and the only sign of infection may be redness. In a child with neutropenia, a reddened area may be the only sign of an infection. The area should never be massaged. The forearm is not a typical pressure area; therefore, the likelihood of the redness being related to pressure is very small. The observation should be documented, but because it may be a sign of an infection and immunosuppression, the physician must also be notified.

7. What is the nurse's best response to a mother whose child has a diagnosis of acute lymphoblastic leukemia and is expressing guilt about not having responded sooner to her child's symptoms?

- 
- a. You should always call the physician when your child has a change in what is normal for him.
- 
- b. It is better to be safe than sorry.
- 
- c. It is not uncommon for parents not to notice subtle changes in their child's health.
- 
- d. I hope this delay does not affect the treatment plan.

ANS: C

Suggesting that noticing subtle changes in their child's health is not uncommon minimizes the role the mother played in not seeking early medical attention. It also displays empathy, which helps to build trust, thereby enabling the mother to talk about her feelings. Identifying concerns and clarifying misconceptions will help families cope with the stress of chronic illness. The goal is to relieve the mother's guilt and build trust so that she can talk about her feelings. Telling the mother that she should have called the pediatrician will only reinforce her guilt. Adages such as It is better to be safe than sorry are flippant and reinforce the belief that the mother was negligent, which will only increase her guilt. Telling the mother that you hope the delay does not affect the treatment plan shows a total lack of empathy and would increase the mother's feelings of guilt.

8. A child with acute myeloblastic leukemia is scheduled to have a bone marrow transplant (BMT). The donor is the child's own umbilical cord blood that had been previously harvested and banked. What type of BMT would this be?

- a. Autologous
- b. Allogeneic
- c. Syngeneic
- d. Stem cell

ANS: A

In an autologous transplant, the child's own marrow or previously harvested and banked cord blood is used. In an allogeneic BMT, histocompatibility has been matched with a related or unrelated donor. In a syngeneic transplant, the child receives bone marrow from an identical twin. A stem cell transplantation uses a unique immature cell present in the peripheral circulation.

9. What should the nurse teach parents about oral hygiene for the child receiving chemotherapy?

- a. Brush the teeth briskly to remove bacteria.
- b. Use a mouthwash that contains alcohol.
- c. Inspect the child's mouth daily for ulcers.
- d. Perform oral hygiene twice a day.

ANS: C

The child's mouth is inspected regularly for ulcers. At the first sign of ulceration, an antifungal drug is initiated. The teeth should be brushed with a soft-bristled toothbrush. Excessive force with brushing should be avoided because delicate tissue could be broken, causing infection or bleeding. Mouthwashes containing alcohol may be drying to oral mucosa, thus breaking down the protective barrier of the skin.

10. What is the absolute neutrophil count (ANC) for a WBC of total count 3000 with 30% neutrophils and 25% bands?

ANS:

1650

The absolute neutrophil count can be easily calculated using the results from the child's CBC. Use the following formula:

Add the percent of neutrophils and the percent of bands.

Convert the summed percentage into decimal form (e.g., 55% = 0.55).

Multiply that figure by the WBC (stated in thousands).

$3000 \times 0.55 = 1650$ .

## Chapter 7: Heart Failure

1. Which intervention should be included in the plan of care for an infant with the nursing diagnosis Fluid volume excess related to congestive heart failure?

- a. Weigh the infant every day on the same scale at the same time.
- b. Notify the physician when weight gain exceeds more than 20 g/day.
- c. Put the infant in a car seat to minimize movement.
- d. Administer digoxin (Lanoxin) as ordered by the physician.

ANS: A

Excess fluid volume may not be overtly visible. Weight changes may indicate fluid retention. Weighing the infant on the same scale at the same time each day ensures consistency. An excessive weight gain for an infant is an increase of more than 50 g/day. With fluid volume excess, skin will be edematous. The infant's position should be changed frequently to prevent undesirable pooling of fluid in certain areas. Lanoxin is used in the treatment of congestive heart failure to improve cardiac function. Diuretics will help the body get rid of excess fluid.

2. The nurse assessing a premature newborn infant auscultates a continuous machinery-like murmur. This finding is associated with which congenital heart defect?

- a. Pulmonary stenosis
- b. Patent ductus arteriosus
- c. Ventricular septal defect
- d. Coarctation of the aorta

ANS: B

The classic murmur associated with patent ductus arteriosus is a machinery-like one that can be heard throughout both systole and diastole. A systolic ejection murmur that may be accompanied by a palpable thrill is a manifestation of pulmonary stenosis. The characteristic murmur associated with ventricular septal defect is a loud, harsh holosystolic murmur. A systolic murmur that is accompanied by an ejection click may be heard on auscultation when coarctation of the aorta is present.

3. A nurse is explaining a patent ductus arteriosus defect to the parents of a preterm infant. The parents indicate understanding of the defect when they state that a patent ductus arteriosus:

- a. involves a defect that results in a right-to-left shunting of blood in the heart.
- b. involves a defect in which the fetal shunt between the aorta and the pulmonary artery fails to close.
- c. is a stenotic lesion that must be surgically corrected at birth.
- d. causes an abnormal opening between the four chambers of the heart.

ANS: B

Patent ductus arteriosus is failure of the fetal shunt between the aorta and the pulmonary artery to close. A patent ductus arteriosus allows blood to flow from the high-pressure aorta to the low-pressure pulmonary artery, resulting in a left-to-right shunt. Patent ductus arteriosus is not a



stenotic lesion. Patent ductus arteriosus can be closed both medically and surgically. Atrioventricular defect occurs when fetal development of the endocardial cushions is disturbed, resulting in abnormalities in the atrial and ventricular septa and the atrioventricular valves.

4. What nursing action is appropriate to take when an infant with a congenital heart defect has an increased respiratory rate and sweating and is not feeding well?

- a. Check the infants temperature.
- b. Alert the physician.
- c. Withhold oral feeding.
- d. Increase the oxygen rate.

ANS: B

An increased respiratory rate, sweating, and not feeling well are signs of early congestive heart failure and the physician should be notified; they do not suggest a febrile process. Withholding the infants feeding is an incomplete response to the problem. Increasing oxygen may alleviate symptoms, but medications such as digoxin and furosemide are necessary to improve heart function and fluid retention.

5. Nursing care for the child in congestive heart failure includes which action?

- a. Counting the number of saturated diapers
- b. Putting the infant in the Trendelenburg position
- c. Removing oxygen while the infant is crying
- d. Organizing care to provide rest periods

ANS: D

Nursing care should be planned to allow for periods of undisturbed rest. Diapers must be weighed for an accurate record of output. The head of the bed should be raised to decrease the work of breathing. Oxygen should be administered during stressful periods such as when the child is crying.

6. Which strategy is appropriate when feeding the infant with congestive heart failure?

- a. Continue the feeding until a sufficient amount of formula is taken.
- b. Limit feedings to no more than 30 minutes.
- c. Always bottle feed every 4 hours.
- d. Feed larger volumes of concentrated formula less frequently.

ANS: B

The infant with congestive heart failure may tire easily so the feeding should not continue beyond 30 minutes. If inadequate amounts of formula are taken, gavage feedings should be considered. Infants with congestive heart failure may be breast-fed or fed a smaller volume of concentrated formula. Feedings every 3 hours is a frequently used interval. If the infant were fed less frequently than every 3 hours, more formula would need to be consumed and would tire the infant.

7. Which congenital heart disease causes cyanosis when not repaired? Select all that apply.

- a. Patent ductus arteriosus (PDA)

- b. Tetralogy of Fallot
- c. Pulmonary atresia
- d. Transposition of the great arteries

ANS: B, C, D

Tetralogy of Fallot is a cyanotic lesion with decreased pulmonary blood flow. The hypoxia results in baseline oxygen saturations as low as 75% to 85%. Even with oxygen administration, saturations do not reach the normal range. Pulmonary atresia is a cyanotic lesion with decreased pulmonary blood flow. The hypoxia results in baseline oxygen saturations as low as 75% to 85%. Even with oxygen administration, saturations do not reach the normal range. Transposition of the great arteries is a cyanotic lesion with increased pulmonary blood flow. PDA is failure of the fetal shunt between the aorta and the pulmonary artery to close. PDA is not classified as a cyanotic heart disease. Prostaglandin E1 is often given to maintain ductal patency in children with cyanotic heart diseases.

8. A child with heart failure is on Lanoxin (digoxin). The laboratory value a nurse must closely monitor is which?

- a. Serum sodium
- b. Serum potassium
- c. Serum glucose
- d. Serum chloride

ANS: B

A fall in the serum potassium level enhances the effects of digoxin, increasing the risk of digoxin toxicity. Increased serum potassium levels diminish digoxin's effect. Therefore, serum potassium levels (normal range, 3.5-5.5 mmol/L) must be carefully monitored.

9. An infant has tetralogy of Fallot. In reviewing the record, what laboratory result should the nurse expect to be documented?

- a. Leukopenia
- b. Polycythemia
- c. Anemia
- d. Increased platelet level

ANS: B

Persistent hypoxemia that occurs with tetralogy of Fallot stimulates erythropoiesis, which results in polycythemia, an increased number of red blood cells.

10. What child has a cyanotic congenital heart defect?

- a. An infant with patent ductus arteriosus
- b. A 1-year-old infant with atrial septal defect
- c. A 2-month-old infant with tetralogy of Fallot
- d. A 6-month-old infant with repaired ventricular septal defect

ANS: C

Tetralogy of Fallot is a cyanotic congenital heart defect. Patent ductus arteriosus, atrial septal defect, and ventricular septal defect are acyanotic congenital heart defects.

11. The nurse is teaching parents about administering digoxin (Lanoxin). What instructions should the nurse tell the parents?

- a. If the child vomits, give another dose.
- b. Give the medication at regular intervals.
- c. If a dose is missed, give a give an extra dose.
- d. Give the medication mixed with the child's formula.

ANS: B

The family should be taught to administer digoxin at regular intervals. If a dose is missed, an extra dose should not be given; the same schedule should be maintained. If the child vomits, do not give a second dose. The drug should not be mixed with foods or other fluids because refusal to consume these would result in inaccurate intake of the drug.

12. Heart failure (HF) is a problem after the child has had a congenital heart defect repaired. The nurse knows a sign of HF is what?

- a. Wheezing
- b. Increased blood pressure
- c. Increased urine output
- d. Decreased heart rate

ANS: A

A clinical manifestation of heart failure is wheezing from pulmonary congestion. The blood pressure decreases, urine output decreases, and heart rate increases.

13. What medication used to treat heart failure (HF) is a diuretic?

- a. Captopril (Capten)
- b. Digoxin (Lanoxin)
- c. Hydrochlorothiazide (Diuril)
- d. Carvedilol (Coreg)

ANS: C

Hydrochlorothiazide is a diuretic. Captopril is an ACE inhibitor, digoxin is a digital glycoside, and carvedilol is a beta-blocker.

## Chapter 8: Failure to Thrive

1. The nurse notes on assessment that a 1-year-old child is underweight, with abdominal distention, thin legs and arms, and foul-smelling stools. The nurse suspects failure to thrive associated with which condition?

- a. Celiac disease

- b. Intussusception
- c. Irritable bowel syndrome
- d. Imperforate anus

ANS: A

These are classic symptoms of celiac disease. Intussusception is not associated with failure to thrive or underweight, thin legs and arms, and foul-smelling stools. Stools are like currant jelly. Irritable bowel syndrome is characterized by diarrhea and pain, and the child does not typically have thin legs and arms. Imperforate anus is the incomplete development or absence of the anus in its normal position in the perineum. Symptoms are evident in early infancy.

2. A nurse should plan to implement which interventions for a child admitted with inorganic failure to thrive? Select all that apply.

- a. Observation of parentchild interactions
- b. Assignment of different nurses to care for the child from day to day
- c. Use of 28 calorie per ounce concentrated formulas
- d. Administration of daily multivitamin supplements
- e. Role-modeling appropriate adultchild interactions

ANS: A, D, E

The nurse should plan to assess parentchild interactions when a child is admitted for nonorganic failure to thrive. The observations should include how the child is held and fed, how eye contact is initiated and maintained, and the facial expressions of both the child and the caregiver during interactions. Role modeling and teaching appropriate adultchild interactions (including holding, touching, and feeding the child) will facilitate appropriate parentchild relationships, enhance parents confidence in caring for their child, and facilitate expression by the parents of realistic expectations based on the childs developmental needs. Daily multivitamin supplements with minerals are often prescribed to ensure that specific nutritional deficiencies do not occur in the course of rapid growth. The nursing staff assigned to care for the child should be consistent. Providing a consistent caregiver from the nursing staff increases trust and provides the child with an adult who anticipates his or her needs and who is able to role model child care to the parent. Caloric enrichment of food is essential, and formula may be concentrated in titrated amounts up to 24 calories per ounce. Greater concentrations can lead to diarrhea and dehydration.

3. A 6-month-old infant presents to the clinic with failure to thrive, a history of frequent respiratory infections, and increasing exhaustion during feedings. On physical examination, a systolic murmur is detected, no central cyanosis, and chest radiography reveals cardiomegaly. An echocardiogram is done that shows left-to-right shunting. This assessment data is characteristic of what?

- a. Tetralogy of Fallot
- b. Coarctation of the aorta
- c. Pulmonary stenosis
- d. Ventricular septal defect

ANS: D

Heart failure is common with ventricular septal defect that causes failure to thrive, respiratory infections, and an increase in exhaustion during feedings. There is a characteristic murmur. The other defects do not have left-to-right shunting.

## Chapter 9: Tonic-Clonic Seizures

1. A child with spina bifida is being admitted to the hospital for a shunt revision? The nurse admitting the child anticipates which type of precautions to be ordered for the child?

- a. Latex
- b. Bleeding
- c. Seizure
- d. Isolation

ANS: A

Children with spina bifida are at high risk for developing latex allergies because of frequent exposure to latex during catheterizations, shunt placements, and other operations. The child with spina bifida does not have a risk for bleeding. Not all children with spina bifida are at risk for seizures and isolation would not be indicated in a child being admitted for a shunt revision.

2. Nursing care of the infant who has had a myelomeningocele repair should include which intervention?

- a. Securely fastening the diaper
- b. Measurement of pupil size
- c. Measurement of head circumference
- d. Administration of seizure medications

ANS: C

Head circumference measurement is essential because hydrocephalus can develop in these infants. A diaper should be placed under the infant but not fastened. Keeping the diaper open facilitates frequent cleaning and decreases the risk for skin breakdown. Pupil size measurement is usually not necessary. Head circumference measurement is essential because hydrocephalus can develop in these infants.

3. A mother reports that her child has episodes in which he appears to be staring into space. This behavior is characteristic of which type of seizure?

- a. Absence
- b. Atonic
- c. Tonic-clonic
- d. Simple partial

ANS: A

Absence seizures are very brief episodes of altered awareness. The child has a blank expression. Atonic seizures cause an abrupt loss of postural tone, loss of consciousness, confusion, lethargy, and sleep. Tonic-clonic seizures involve sustained generalized muscle contractions followed by alternating contraction and relaxation of major muscle groups. There is no change in level of consciousness with simple partial seizures. Simple partial seizures consist of motor, autonomic, or sensory symptoms.

4. What is the best response to a father who tells the nurse that his son daydreams at home and his teacher has observed this behavior at school?

- a. Your son must have an active imagination.
- b. Can you tell me exactly how many times this occurs in one day?
- c. Tell me about your sons activity when you notice the daydreams.
- d. He is probably getting tired and needs a rest.

ANS: C

The daydream episodes are suggestive of absence seizures and data about activity associated with the daydreams should be obtained. Suggesting that the child has an active imagination does not address the child's symptoms or the father's concern. The number of times the behavior occurs is consistent with absence seizures, which can occur one after the other several times a day. Determining an exact number of absence seizures is not as useful as learning about behavior before the seizure that might have precipitated seizure activity. Blaming the seizures on rest ignores both the child's symptoms and the father's concern about the daydreaming behavior.

5. The nurse teaches parents to alert their healthcare provider about which adverse effect when a child receives valproic acid (Depakene) to control generalized seizures?

- a. Weight loss
- b. Bruising
- c. Anorexia
- d. Drowsiness

ANS: B

Thrombocytopenia is an adverse effect of valproic acid. Parents should be alert for any unusual bruising or bleeding. Weight gain, not loss or anorexia, is a side effect of valproic acid.

Drowsiness is not a side effect of valproic acid, although it is associated with other anticonvulsant medications.

6. What is the most appropriate nursing action when a child is in the tonic phase of a generalized tonic-clonic seizure?

- a. Guide the child to the floor if he is standing and go for help.
- b. Turn the child's body on his side.
- c. Place a padded tongue blade between the teeth.
- d. Quickly slip soft restraints on the child's wrists.

ANS: B

Positioning the child on his side will prevent aspiration. The child should be placed on a soft surface if he is not in bed; however, it would be inappropriate to leave the child during the

seizure. Nothing should be inserted into the child's mouth during a seizure to prevent injury to the mouth, gums, or teeth. Restraints could cause injury. Sharp objects and furniture should be moved out of the way to prevent injury.

7. After a tonic-clonic seizure, it would not be unusual for a child to display which symptom?

- a. Irritability and hunger
- b. Lethargy and confusion
- c. Nausea and vomiting
- d. Nervousness and excitability

ANS: B

In the period after a tonic-clonic seizure, the child may be confused and lethargic. Some children may sleep for a period of time. Neither irritability nor hunger is typical of the period after a tonic-clonic seizure. Nausea and vomiting are not expected reactions in the postictal period. The child will more likely be confused and lethargic after a tonic-clonic seizure.

8. What should the nurse teach parents when the child is taking phenytoin (Dilantin) to control seizures?

- a. The child should use a soft toothbrush and floss his teeth after every meal.
- b. The child will require monitoring of his liver function while taking this medication.
- c. Dilantin should be taken with food because it causes gastrointestinal distress.
- d. The medication can be stopped when the child has been seizure free for 1 month.

ANS: A

A side effect of Dilantin is gingival hyperplasia. Good oral hygiene will minimize this adverse effect. The child receiving Depakene (valproic acid) should have liver function studies because this anticonvulsant may cause hepatic dysfunction. Dilantin has not been found to cause gastrointestinal upset. The medication can be taken without food. Anticonvulsants should never be stopped suddenly or without consulting the physician. Such action could result in seizure activity.

9. A child is brought to the emergency department in generalized tonic-clonic status epilepticus. Which medication should the nurse expect to be given initially in this situation?

- a. Clorazepate dipotassium (Tranxene)
- b. Fosphenytoin (Cerebyx)
- c. Phenobarbital
- d. Lorazepam (Ativan)

ANS: D

Lorazepam or diazepam is given intravenously to control generalized tonic-clonic status epilepticus and may also be used for seizures lasting more than 5 minutes. Clorazepate dipotassium (Tranxene) is indicated for cluster seizures. It can be given orally. Fosphenytoin and phenobarbital can be given intravenously as a second round of medication if seizures continue.

10. Which interventions should the nurse perform if a child is having a tonic-clonic seizure? Select all that apply.

- |    |                                                   |
|----|---------------------------------------------------|
| a. | Place a padded tongue blade in the child's mouth. |
| b. | Place the child in a supine position.             |
| c. | Time the seizure.                                 |
| d. | Restrain the child.                               |
| e. | Stay with the child.                              |
| f. | Loosen the child's clothing.                      |

ANS: C, E, F

As a seizure begins the nurse should look at his or her watch and time the seizure. The nurse should protect the child from injury by loosening clothing at the neck and turning the child gently onto the side, removing any obstacles in the child's environment. Do not restrain the child or insert any object into the child's mouth.

## Chapter 10: Diabetes Mellitus Type 1

1. A nurse is assessing a child with diabetes insipidus. Which sign should the nurse expect to note?

- |    |                                  |
|----|----------------------------------|
| a. | Weight gain                      |
| b. | Increased urine specific gravity |
| c. | Increased urination              |
| d. | Serum sodium level of 130 mEq/L  |

ANS: C

The deficiency of antidiuretic hormone associated with diabetes insipidus causes the body to excrete large volumes of dilute urine. Weight gain results from retention of water when there is an excessive production of antidiuretic hormone; in diabetes insipidus there is a decreased production of antidiuretic hormone. Concentrated urine is a sign of the syndrome of inappropriate antidiuretic hormone (SIADH), in which there is an excessive production of antidiuretic hormone. A deficiency of antidiuretic hormone, as with diabetes insipidus, results in an increased serum sodium concentration (greater than 145 mEq/L).

2. What should the nurse include in the teaching plan for parents of a child with diabetes insipidus who is receiving DDAVP intranasally?

- |    |                                                                            |
|----|----------------------------------------------------------------------------|
| a. | Increase the dosage of DDAVP as the urine specific gravity (SG) increases. |
| b. | Give DDAVP only if the urine output decreases.                             |
| c. | Child should have free access to water and toilet facilities at school.    |
| d. | Cleanse the skin before administering the transdermal patch.               |

ANS: C

The child's teachers should be aware of the diagnosis and the child should have free access to water and toilet facilities at school. DDAVP needs to be given as ordered by the physician. If the



parents are monitoring urine SG at home, they would not increase the medication dose for increased SG; the physician may order an increased dosage for very dilute urine with decreased SG. DDAVP needs to be given continuously as ordered by the physician. DDAVP is typically given intranasally or by subcutaneous injection. For nocturnal enuresis, it may be given orally.

3. A nurse is explaining growth hormone deficiency to parents of a child admitted to rule out this problem. Which metabolic alteration should the nurse explain to the parent that is related to growth hormone deficiency?

- a. Hypocalcemia
- b. Hypoglycemia
- c. Diabetes insipidus
- d. Hyperglycemia

ANS: B

Growth hormone helps maintain blood sugar at normal levels. Symptoms of hypocalcemia are associated with hypoparathyroidism. Diabetes insipidus is a disorder of the posterior pituitary. Growth hormone is produced by the anterior pituitary. Hyperglycemia results from an insufficiency of insulin, which is produced by the beta cells in the islets of Langerhans in the pancreas.

4. Which statement made by a 14-year-old adolescent who is newly diagnosed with insulin-dependent diabetes mellitus (IDDM) indicates a need for further teaching?

- a. I should eat meals and snack at the same time every day.
- b. Exercise will decrease my insulin requirements.
- c. It is okay to drink chocolate milk with meals.
- d. I need to check my sugars before meals and at bedtime.

ANS: C

Chocolate milk is high in carbohydrates. Carbohydrates raise blood glucose levels. A beverage low in carbohydrates is a better choice. Meals and snacks should be eaten at regular times. Exercise decreases insulin requirements. Checking serum glucose before breakfast and dinner is appropriate.

5. What is the primary concern for a 7-year-old child with insulin-dependent diabetes mellitus (IDDM) who asks his mother not to tell anyone at school that he has diabetes?

- a. The child's safety
- b. The privacy of the child
- c. Development of a sense of industry
- d. Peer group acceptance

ANS: A

Safety is the primary issue. School personnel need to be aware of the signs and symptoms of hypoglycemia and hyperglycemia and the appropriate interventions. Privacy is not a life-threatening concern. The treatment of IDDM should not interfere with the school-age child's development of a sense of industry. Peer group acceptance and body image are issues for the early adolescent with IDDM. This is not of greater priority than the child's safety.

6. Which is the best nursing action when a child with insulin-dependent diabetes mellitus is sweating, trembling, and pale?

- a. Offer the child a glass of water.
- b. Give the child 5 units of Regular insulin subcutaneously.
- c. Give the child a glass of orange juice.
- d. Give the child glucagon subcutaneously.

ANS: C

Four ounces of orange juice is an appropriate treatment for the conscious child who is exhibiting signs of hypoglycemia. A glass of water is not indicated in this situation. An easily digested carbohydrate is indicated when a child exhibits symptoms of hypoglycemia. Insulin would lower blood glucose and is contraindicated for a child with hypoglycemia. Subcutaneous injection of glucagon is used to treat hypoglycemia when the child is unconscious.

7. Which sign is the nurse most likely to assess in a child with hypoglycemia?

- a. Urine positive for ketones and serum glucose greater than 300 mg/dL
- b. Normal sensorium and serum glucose greater than 160 mg/dL
- c. Irritability and serum glucose less than 70 mg/dL
- d. Increased urination and serum glucose less than 120 mg/dL

ANS: C

Irritability and serum glucose less than 70 mg/dL are neuroglycopenic manifestations of hypoglycemia. Serum glucose greater than 300 mg/dL and urine positive for ketones are indicative of diabetic ketoacidosis. Normal sensorium and serum glucose greater than 160 mg/dL are associated with hyperglycemia. Increased urination is an indicator of hyperglycemia. A serum glucose level less than 120 mg/dL is within normal limits.

8. When would a child diagnosed with insulin-dependent diabetes mellitus most likely demonstrate a decreased need for insulin?

- a. During the honeymoon phase
- b. During adolescence
- c. During growth spurts
- d. During minor illnesses

ANS: A

During the honeymoon phase, which may last from a few weeks to a year or longer, the child is likely to need less insulin. During adolescence, physical growth and hormonal changes contribute to an increase in insulin requirements. Insulin requirements are typically increased during growth spurts. Stress either from illness or from events in the environment can cause hyperglycemia. Insulin requirements are increased during periods of minor illness.

9. What should a nurse suggest to the parent of a child with insulin-dependent diabetes mellitus (IDDM) who is not eating as a result of a minor illness?

- a. Give the child half his regular morning dose of insulin.
- b. Substitute calorie-containing liquids for solid food to maintain normal serum glucose levels.
- c. Give the child plenty of unsweetened, clear liquids to prevent dehydration.

- 
- d. Take the child directly to the emergency department.

ANS: B

Calorie-containing liquids will maintain normal serum glucose levels and decrease the risk of hypoglycemia. The child should receive his regular dose of insulin even if he does not have an appetite. If the child is not eating as usual, he needs calories to prevent hypoglycemia. During periods of minor illness, the child with IDDM can be managed safely at home.

10. Which is the nurses best response to the parents of a 10-year-old child newly diagnosed with insulin-dependent diabetes mellitus (IDDM) who are concerned about the childs continued participation in soccer?

- 
- a. Consider the swim team as an alternative to soccer.
- 
- b. Encourage intellectual activity rather than participation in sports.
- 
- c. It is okay to play sports such as soccer when the weather is moderate.
- 
- d. Give the child an extra 15 to 30 grams of carbohydrate snack before soccer practice.

ANS: D

Exercise lowers blood glucose levels. A snack with 15 to 30 grams of carbohydrates before exercise will decrease the risk of hypoglycemia. Soccer is an appropriate sport for a child with IDDM as long as the child prevents hypoglycemia by eating a snack. Participation in sports is not contraindicated for a child with IDDM. The child with IDDM may participate in sports activities regardless of climate.

11. Which comment made by a 12-year-old child with insulin-dependent diabetes mellitus (IDDM) indicates a knowledge deficit?

- 
- a. I rotate my insulin injection sites every time I give myself an injection.
- 
- b. I keep records of my glucose levels and insulin sites and amounts.
- 
- c. Ill be glad when I can take a pill for my diabetes like my uncle does.
- 
- d. I keep Lifesavers in my school bag in case I have a low-sugar reaction.

ANS: C

Children with IDDM will require life-long insulin therapy. Rotating injection sites is appropriate because insulin absorption varies at different sites. Keeping records of serum glucose and insulin sites and amounts is appropriate. Prompt treatment of hypoglycemia reduces the possibility of a severe reaction. Keeping hard candy on hand is an appropriate action.

12. Which laboratory findings would confirm that a child with insulin-dependent diabetes mellitus (IDDM) is experiencing diabetic ketoacidosis?

- 
- a. No urinary ketones
- 
- b. Low arterial pH
- 
- c. Elevated serum carbon dioxide
- 
- d. Elevated serum phosphorus

ANS: B

Severe insulin deficiency produces metabolic acidosis, which is indicated by a low arterial pH. Urinary ketones, often in large amounts, are present when a child is in diabetic ketoacidosis.

Serum carbon dioxide is decreased in diabetic ketoacidosis. Serum phosphorus is decreased in diabetic ketoacidosis.

13. A nurse is preparing to administer 10 units of Regular insulin and 5 units of Lente insulin. Place in order the steps the nurse should follow to administer the total dosage of 15 units of insulin. Place the initial step first and end with the final step. Use the following format for your answers: A, B, C, D

- a. Inject 5 units of air into the Lente insulin vial.
- b. Draw up the 5 units of Lente insulin.
- c. Inject 10 units of air into the Regular insulin vial.
- d. Cleanse the insulin vials with alcohol wipes.
- e. Draw up the 10 units of Regular insulin.

ANS:

D, A, C, E, B

Cleanse the insulin vials with alcohol wipes initially. When mixing two different types of insulin, inject the appropriate amount of air into both vials and then withdraw the short-acting (clear) insulin first. So the steps should be to cleanse the insulin vials, inject air into the Lente, inject air into the Regular insulin vial, then draw the Regular (clear) insulin, and lastly draw the Lente (cloudy) insulin.

## Chapter 11: Second-Degree Burns

1. The depth of a burn injury may be classified as:

- a. localized or systemic.
- b. superficial, superficial partial thickness, deep partial thickness, or full thickness.
- c. electrical, chemical, or thermal.
- d. minor, moderate, or major.

ANS: B

The vocabulary to classify the depth of burn is superficial, partial thickness, or full thickness. These terms refer to the effect of the burn injury. For example, is there a reaction in the area of the burn (localized) or throughout the body (systemic)? Electrical, chemical, or thermal are terms that refer to the cause of the burn injury. Minor, moderate, or major are terms that refer to the severity of the burn injury.

2. What is the major difference between caring for an infant with burns and an adolescent with burns?

- a. An increased risk of cardiovascular problems in the infant
- b. A decreased need for caloric intake in the infant
- c. An increased risk for hypervolemia in the adolescent
- d. A decreased need for electrolyte replacement in the infant

ANS: A

The higher proportion of body fluid to body mass in infants increases the risk of cardiovascular problems because of a less effective cardiovascular response to changing intravascular volume. Infants are at an increased risk for protein and calorie deficiency because they have smaller muscle mass and lower body fat. Hypovolemia is a risk for all burn patients; however, the risk is higher for the infant than for the adolescent. There is an increased risk for electrolyte loss in the infant because of the larger body surface area.

3. Which procedure is contraindicated in the care of a child with a minor partial-thickness burn injury wound?

- a. Cleaning the affected area with mild soap and water
- b. Applying antimicrobial ointment to the burn wound
- c. Changing dressings daily
- d. Leaving all loose tissue or skin intact

ANS: D

All loose skin and tissue should be debrided because it can become a breeding ground for infectious organisms. Cleaning with mild soap and water is important to the healing process. Antimicrobial ointment is used on the burn wound to fight infection. Clean dressings are applied daily to prevent wound infection. When dressings are changed, the condition of the burn wound can be assessed.

4. The process of burn shock continues until which physiological mechanism occurs?

- a. Heart rate returns to normal.
- b. Airway swelling decreases.
- c. Body temperature regulation returns to normal.
- d. Capillaries regain their seal.

ANS: D

Within minutes of the burn injury, the capillary seals are lost with a massive fluid leakage into the surrounding tissue, resulting in burn shock. The process of burn shock continues for approximately 24 to 48 hours, when capillary seals are restored. The heart rate will be increased throughout the healing process because of increased metabolism. Airway swelling subsides over a period of 2 to 5 days after injury. Body temperature regulation will not be normal until healing is well under way.

5. To assess the child with severe burns for adequate perfusion, the nurse monitors which area?

- a. Distal pulses
- b. Skin turgor
- c. Urine output
- d. Mucous membranes

ANS: C

Urine output reflects the adequacy of end-organ perfusion. Distal pulses may be affected by many variables. Urine output is the most reliable indicator of end-organ perfusion. Skin turgor is often difficult to assess on burn patients because the skin is not intact. Mucous membranes do not reflect end-organ perfusion.

6. Which medication would be best for the nurse to administer before a dressing change for the severely burned child?

- a. Codeine
- b. Benadryl
- c. Morphine
- d. Acetaminophen

ANS: C

Morphine is the drug of choice for pain management in the severely burned child. It should be administered intravenously. Codeine may be used to diminish pain between dressing changes. Benadryl is administered to relieve discomfort from itching. Acetaminophen can be given for discomfort between painful procedures.

7. Which nursing assessment and care holds the highest priority in the initial care of a child with a major burn injury?

- a. Establishing and maintaining the child's airway
- b. Establishing and maintaining intravenous access
- c. Insertion of a catheter to monitor hourly urine output
- d. Insertion of a nasogastric tube into the stomach to supply adequate nutrition

ANS: A

Establishing and maintaining the child's airway are always the priority focus for assessment and care. Establishing intravenous access is the second priority in this situation, after the airway has been established. Inserting a catheter and monitoring hourly urine output are the third most important nursing intervention. Nasogastric feedings are not begun initially on a child with major or severe burns. The initial assessment and care focus for a child with major burn injuries are the ABCs.

## Chapter 12: Sickle Cell Anemia

1. Which is true about the genetic transmission of sickle cell disease?

- a. Both parents must carry the sickle cell trait.
- b. Both parents must have sickle cell disease.
- c. One parent must have the sickle cell trait.
- d. Sickle cell disease has no known pattern of inheritance.

ANS: A

Sickle cell disease has an autosomal recessive transmission pattern, which means that both parents must be carriers of the sickle cell trait. The sickle cell trait, not the disease itself, must be present in the parents for the child to have the disease.

2. What are the nursing priorities for a child with sickle cell disease in vaso-occlusive crisis?

- a. Administration of antibiotics and nebulizer treatments
- b. Hydration and pain management

- c. Blood transfusions and an increased calorie diet
- d. School work and diversion

ANS: B

Hydration and pain management decrease the cells oxygen demands and prevent sickling. Antibiotics may be given prophylactically. Oxygen therapy rather than nebulizer treatments is used to prevent further sickling. Although blood transfusions and increased calories may be indicated, they are not primary considerations for a vaso-occlusive crisis. Schoolwork and diversion are not major considerations when the child is in a vaso-occlusive crisis.

3. A child with sickle cell disease is seen in the emergency department with increasing back and leg pain for the past 2 days. What is this child most likely experiencing?

- a. A vaso-occlusive crisis
- b. Acute splenic sequestration
- c. Erythroblastopenia
- d. Acute chest syndrome

ANS: A

A vaso-occlusive crisis is the most common type of crisis and is characterized by mild to severe pain. Pain can occur anywhere, but is typically manifested as bone or joint pain. Symptoms of acute splenic sequestration are associated with blood volume pooling, causing splenic enlargement and hypovolemic shock. Symptoms of pallor, lethargy, headache, and upper respiratory infection seen in erythroblastopenia result from decreased blood cell production by the bone marrow. Chest pain, fever, and cough are characteristic of acute chest syndrome.

4. What should the discharge plan for a school-age child with sickle cell disease include?

- a. Restricting the child's participation in outside activities
- b. Administering aspirin for pain or fever
- c. Limiting the child's interaction with peers
- d. Administering penicillin daily as ordered

ANS: D

Children with sickle cell disease are at a high risk for pneumococcal infections and should receive long-term penicillin therapy and preventive immunizations. Sickle cell disease does not prohibit the child from outdoor play. Active and passive exercises help promote circulation. Aspirin use should be avoided. Acetaminophen or ibuprofen should be administered for fever or pain. The child needs to interact with peers to meet his developmental needs.

5. How should the nurse respond when asked by the mother of a child with beta-thalassemia why the child is receiving deferoxamine?

- a. To improve the anemia.
- b. To decrease hepatosplenomegaly.
- c. To prevent organ damage.
- d. To prepare your child for a bone marrow transplant.

ANS: C

Multiple transfusions result in hemosiderosis. Deferoxamine is given to chelate iron and prevent organ damage and complications from repeated transfusions. Preparation for a bone marrow transplant would not include administration of deferoxamine.

6. The nurse is caring for a child with aplastic anemia. Which of the following nursing diagnoses would be appropriate? Select all that apply.

- a. Acute pain related to vaso-occlusion
- b. Risk for infection related to inadequate secondary defenses or immunosuppression
- c. Ineffective protection related to thrombocytopenia
- d. Ineffective tissue perfusion related to anemia

ANS: B, C, D

Risk for infection, ineffective protection, and ineffective tissue perfusion are appropriate nursing diagnoses for the nurse planning care for a child with aplastic anemia. Aplastic anemia is a condition in which the bone marrow ceases production of the cells it normally manufactures, resulting in pancytopenia. The child will have varying degrees of the disease depending on how low the values are for absolute neutrophil count (affecting the body's response to infection), platelet count (putting the child at risk for bleeding), and absolute reticulocyte count (causing the child to have anemia). Acute pain related to vaso-occlusion is an appropriate nursing diagnosis for sickle cell anemia for the child in vaso-occlusive crisis, but it is not applicable to a child with aplastic anemia.

7. A nurse is teaching home care instructions to parents of a child with sickle cell disease. Which instructions should the nurse include? Select all that apply.

- a. Limit fluid intake.
- b. Administer aspirin for fever.
- c. Administer penicillin as ordered.
- d. Avoid cold and extreme heat.
- e. Provide for adequate rest periods.

ANS: C, D, E

Parents should be taught to avoid cold, which can increase sickling, and extreme heat, which can cause dehydration. Adequate rest periods should be provided. Penicillin should be administered daily as ordered. The use of aspirin should be avoided; acetaminophen or ibuprofen should be used as an alternative. Fluids should be encouraged and an increase in fluid intake is encouraged in hot weather or when there are other risks for dehydration.

## Chapter 13: Attention Deficit Hyperactivity Disorder

1. A nurse is assessing a child with a depressive disorder. Which symptom is likely to be manifested by the child?



- a. Increased nighttime waking
- b. Impulsivity and distractibility
- c. Carelessness and inattention to details
- d. Refusal to leave the house

ANS: A

Sleep pattern disturbances are often associated with depression. These include insomnia or hypersomnia. Impulsivity and distractibility are manifestations of attention-deficit hyperactivity disorder (ADHD). A diminished ability to think or concentrate, carelessness, and inattention to details are clinical manifestations of a depressive disorder. A refusal to leave the house, even to play with friends, is characteristic of separation anxiety disorder.

2. What is the goal of therapeutic management for a child diagnosed with attention-deficit hyperactivity (ADHD) disorder?

- a. Administer stimulant medications.
- b. Assess the child for other psychosocial disorders.
- c. Correct nutritional imbalances.
- d. Reduce the frequency and intensity of unsocialized behaviors.

ANS: D

The primary goal of therapeutic management for the child with ADHD is to reduce the intensity and frequency of unsocialized behaviors. Although medications are effective in managing behaviors associated with ADHD, all families do not choose to give their child medication. Administering medication is not the primary goal. Children with ADHD may have other psychosocial or learning problems; however, diagnosing these is not the primary goal. Interventions to correct nutritional imbalances are the primary focus of care for eating disorders.

3. A nurse is assessing a child with attention-deficit hyperactivity disorder (ADHD). Which manifestation should the nurse not expect to assess?

- a. Talking incessantly
- b. Blurting out the answers to questions before the questions have been completed
- c. Acting withdrawn in social situations
- d. Fidgeting with hands or feet

ANS: C

The child with ADHD tends to be talkative, often interrupting conversations, rather than withdrawn in social situations. Talking excessively is a characteristic of impulsivity/hyperactivity. Blurting out the answers to questions before the questions have been completed is an indication of the impulse control that is often lacking in children with ADHD. The child with ADHD tends to be talkative, often interrupting conversations, rather than withdrawn in social situations.

1. The nurse is planning to admit a 14-year-old adolescent with Cushing syndrome. What clinical manifestations should the nurse expect to observe in this child? *(Select all that apply.)*

- a. Truncal obesity
- b. Decreased pubic hair
- c. Petechial hemorrhage
- d. Hyperpigmentation of elbows
- e. Facial plethora
- f. Headache and weakness

ANS: A, C, E

Clinical manifestations of Cushing syndrome include truncal obesity, petechial hemorrhage, and facial plethora. Decreased pubic and axillary hair; hyperpigmentation of elbows, knees, and wrists; and headache and weakness are clinical manifestations of adrenocortical insufficiency.

2. A child with Prader-Willi syndrome has been hospitalized. Which assessment findings does the nurse expect with this syndrome?

- a. Nonverbal
- b. Insatiable hunger
- c. Abnormal, puppetlike gait
- d. Paroxysms of inappropriate laughter

ANS: B

Prader-Willi syndrome is characterized by insatiable hunger that can lead to morbid obesity in childhood. Abnormal, puppetlike gait, paroxysms of inappropriate laughter, and nonverbal are characteristics seen in Angelman syndrome.

3. The nurse is teaching parents about the effects of media on childhood obesity. The nurse realizes the parents understand the teaching if they make which statements? *(Select all that apply.)*

- a. Advertising of unhealthy food can increase snacking.
- b. Increased screen time may be related to unhealthy sleep.
- c. There is a link between the amount of screen time and obesity.
- d. Increased screen time can lead to better knowledge of nutrition.
- e. Physical activity increases when children increase the amount of screen time.

ANS: A, B, C

A number of studies have demonstrated a link between the amount of screen time and obesity. Advertising of unhealthy food to children is a long-standing marketing practice, which may increase snacking in the face of decreased activity. In addition, both increased screen time and unhealthy eating may also be related to unhealthy sleep. Increased screen time does not lead to a better knowledge of nutrition or increased physical activity.

4. The nurse is teaching a class on obesity prevention to parents in the community. What is a contributing factor to childhood obesity?

- a. Birth weight

- b. Parental overweight
- c. Age at the onset of puberty
- d. Asian ethnic background

ANS: B

There is a high correlation between parental adiposity and childhood adiposity. Obese children do not have higher birth weights than nonobese children. Early menarche is associated with obesity, but the age of puberty is not a contributing factor. African Americans and Hispanics have disproportionately high percentages of overweight individuals, but Asians do not.

5. During a well-child visit, the nurse plots the child's BMI on the health record. What is the purpose of the BMI?

- a. To determine medication dosages
- b. To predict adult height and weight
- c. To identify coping strategies used by the child
- d. To provide a consistent measure of obesity

ANS: D

A consistent measure of the degree of obesity is important to determine whether modification of the body fat component is indicated. Body surface area (BSA), not BMI, is used for medication dosage calculation. The BMI is not a predictor of adult height. A child with a high BMI may use food as a coping mechanism, but the BMI is not correlated with coping strategy use.

6. During a well-child visit, the nurse practitioner provides guidance about promoting healthy eating in a child who is overweight. What does the nurse advise?

- a. Slow down eating meals.
- b. Avoid between-meal snacks.
- c. Include low-fat foods in meals.
- d. Use foods that child likes as special treats.

ANS: A

When a child slows down the eating process, it is easier to recognize signs of fullness. If food is consumed rapidly, this feedback is lost. Regular meals and snacks are encouraged to prevent the child from becoming too hungry and overeating. Low-fat foods are usually higher in calories than the regular versions. Nutritional labels should be checked and foods high in sugar and calories avoided. Food should not be used as a special treat or reward; this encourages the child to use food as comfort measures in response to boredom and stress.

7. The middle school nurse is planning a behavior modification program for overweight children. What is the most important goal for participants of the program?

- a. Learn how to cook low-fat meals.
- b. Improve relationships with peers.
- c. Identify and eliminate inappropriate eating habits.
- d. Achieve normal weight during the program.

ANS: C

The goal of behavior modification in weight control is to help the participant identify abnormal eating processes. After the abnormal patterns are identified, then techniques, including problem solving, are taught to eliminate inappropriate eating. Learning how to cook low-fat meals can be a component of the program, but the focus of behavior modification is identifying target behaviors that need to be changed. Improving relationships is not the focus of weight management behavior management programs. Achieving normal weight during the program is an inappropriate goal. As the child incorporates the techniques, weight gain will slow. In childhood obesity, the goal is to stop the increase of weight gain.

## Chapter 15: Care of the Newborn and Infant

### MULTIPLE CHOICE

1. Which milestone is developmentally appropriate for a 2-month-old infant when the nurse pulls the infant to a sitting position?

- a. Head lag is present when the infants trunk is lifted.
- b. The infant is able to support the head when the trunk is lifted.
- c. The infant is briefly able to hold the head erect.
- d. The infant is fully able to support and hold the head in a straight line.

ANS: C

A 2-month-old infant is able to hold the head erect only briefly and continues to have some head lag. It is not until 4 months of age that the infant can keep his or her head in a straight line when pulled to a sitting position.

2. Approximately what should a newborn weigh at 1 year of age if the newborns birth weight was 7 pounds 6 ounces?

- a. 14 3/4 pounds
- b. 22 1/8 pounds
- c. 29 1/2 pounds
- d. Unable to estimate weight at 1 year

ANS: B

An infant triples the birth weight by 1 year of age. An infant doubles the birth weight by 6 months of age. An infant quadruples the birth weight by 2 years of age. Weight at 6 months, 1 year, and 2 years of age can be estimated from the birth weight.

3. Which statement made by a parent would be consistent with a developmental delay?

- a. I have noticed that my 9-month-old infant responds consistently to the sound of his name.
- b. I have noticed that my 12-month-old child does not get herself to a sitting position or pull to stand.
- c. I am so happy when my 1 1/2-month-old infant smiles at me.

- d. My 5-month-old infant is not rolling over in both directions yet.

ANS: B

Critical developmental milestones for gross motor development in a 12 month old include standing briefly without support, getting to a sitting position, and pulling to stand. If a 12-month-old child does not perform these activities, it may be indicative of a developmental delay. An infant who responds to his name at 9 months of age is demonstrating abilities to both hear and interpret sound. A social smile is present by 2 months of age. Rolling over in both directions is not a critical milestone for gross motor development until the child reaches 6 months of age.

4. At a healthy 2-month-old infants well-child clinic visit, the nurse should give which immunizations?

- a. DTaP, IPV, HepB, Hib, PCV, rotavirus
- b. MMR, DTaP, PVC, and IPV
- c. Hib, DTaP, rotavirus, and OPV
- d. Hib and MMR, IPV, and rotavirus

ANS: A

DTaP, IPV, HepB, Hib, PCV, and rotavirus are the appropriate sequence of immunizations for a healthy 2-month-old infant. MMR is given at or after 12 months of age. Oral polio vaccine (OPV) is no longer administered in the U.S.

5. The nurse advises the mother of a 3-month-old infant, exclusively breast-fed, to:

- a. start giving the infant a vitamin D supplement.
- b. start using an infant feeder and add rice cereal to the formula.
- c. start feeding the infant rice cereal with a spoon at the evening feeding.
- d. continue breast-feeding without any supplements.

ANS: A

Breast milk does not provide an adequate amount of dietary vitamin D. Infants who are exclusively breast-fed need vitamin D supplements to prevent rickets. An infant feeder is an inappropriate method of providing the infant with caloric intake. Solid foods and rice cereal are not recommended for a 3-month-old infant. Solid feedings do not typically begin before 4 to 6 months of age. Because breast milk is not an adequate source of fluoride, infants need to be given a fluoride supplement.

6. At \_\_\_\_\_ months of age, an infant should first be expected to locate an object hidden from view.

- a. 4
- b. 6
- c. 9
- d. 20

ANS: C

By 9 months of age an infant will actively search for an object that is out of sight. Four-month-old infants are not cognitively capable of searching out objects hidden from their view. Infants at this developmental level do not pursue hidden objects. Six-month-old infants have not developed the ability to perceive objects as permanent and do not search out objects hidden from their view.

Twenty-month-old infants actively pursue objects not in their view and are capable of recalling the location of an object not in their view. They *first* look for hidden objects around the age of 9 months.

7. The parents of a newborn infant state, We will probably not have our baby immunized because we are concerned about the risk of our child being injured. Which is the best response for the nurse to make?

- a. It is your decision.
- b. Have you talked with your parents about this? They can probably help you think about this decision.
- c. The risks of not immunizing your baby are greater than the risks from the immunizations.
- d. You are making a mistake.

ANS: C

Although immunizations have been documented to have a negative effect in a small number of cases, an unimmunized infant is at greater risk for development of complications from childhood diseases than from the vaccines. It is the parents decision not to immunize the child; however, the nurse has a responsibility to inform parents about the risks to infants who are not immunized. Grandparents can be supportive but are not the primary decision makers for the infant. Telling parents that they are making a mistake is an inappropriate response.

8. The mother of a 9-month-old infant is concerned because the infant cries when she leaves him. Which is the best response for the nurse to make to the mother?

- a. You could consider leaving the infant more often so he can adjust.
- b. You might consider taking him to the doctor because he may be ill.
- c. Have you noticed whether the baby is teething?
- d. This can be a healthy sign of attachment.

ANS: D

Healthy attachment is manifested by stranger anxiety in late infancy. An infant who manifests stranger anxiety can be supported by the mother leaving the infant for only short periods of time. Assessing developmental needs is appropriate before taking an infant to a physician. Pain from teething expressed by the infants cries would not occur only when the mother left the room.

9. Which statement concerning physiological factors of infancy is true?

- a. The infant has a slower metabolic rate than an adult.
- b. An infant is not able to digest protein and lactase.
- c. Infants have a slower circulatory response than adults.
- d. The kidneys of an infant are less efficient in concentrating urine than an adults kidneys.

ANS: D

The infants kidneys are not as effective at concentrating urine compared with an adults kidneys because of immaturity of the renal system and a slower glomerular filtration rates. The infants metabolic rate is faster, not slower, than an adults. Although the newborn infants gastrointestinal system is immature, it is capable of digesting protein and lactase, but the ability to digest and absorb fat does not reach adult levels until approximately 6 to 9 months of age.

10. Which is a priority in counseling parents of a 6-month-old infant?

- a. Increased appetite from secondary growth spurt
- b. Allowing the infant to self-feed
- c. Securing a developmentally safe environment for the infant
- d. Strategies to teach infants to sit up

ANS: C

Safety is a primary concern as an infant becomes increasingly mobile. The infants appetite and growth velocity decrease in the second half of infancy. Fine motor development, which is refined in the second half of infancy, is necessary before the infant can self-feed. Unless the infant has a neuromuscular deficit, strategies for teaching a normally developing infant to sit up are not necessary.

11. A mother of a 2-month-old infant tells the nurse, My child doesnt sleep as much as his older brother did at the same age. What is the best response for the nurse?

- a. Have you tried to feed the baby more often?
- b. Infant sleep patterns vary widely, with some infants sleeping only 2 to 3 hours at a time.
- c. It is helpful to keep a record of your babys eating, waking, sleeping, and elimination patterns and to come back in a week to discuss them.
- d. This infant is difficult. It is important for you to identify what is bothering the baby.

ANS: B

Newborn infants may sleep as much as 17 to 20 hours per day. Sleep patterns vary widely, with some infants sleeping only 2 to 3 hours at a time. Infants typically do not need more caloric intake to improve sleep behaviors. Keeping intake, output, waking, and sleeping data is not typically helpful in discussing differences among infants behaviors. Identifying an infant as difficult without identifying helpful actions is not a therapeutic response for a parent concerned about sleep.

12. The mother of a 10-month-old infant tells the nurse that her infant really likes cows milk. Which is the best response to this mother?

- a. Milk is good for him.
- b. It is best to wait until he is a year old before giving him cows milk.
- c. Limit cows milk to his bedtime bottle.
- d. Mix his cereal with cows milk and give him formula in a bottle.

ANS: B

It is best to wait until the infant is at least a year old before giving him cows milk because of the risk of allergies and intestinal problems. Cows milk protein intolerance is the most common food allergy during infancy. Although milk is a good source of calcium and protein for children after the first year of life, it is not the best source of nutrients for children younger than 1 year old. Bedtime bottles of formula or milk are contraindicated because of their high sugar content, which leads to dental decay in primary teeth. Cereal can be mixed with formula.

13. The mother of a 10-month-old infant asks the nurse about beginning to wean her child from the bottle. Which statement by the mother suggests that the child is not ready to be weaned?

- a. My son is frequently throwing his bottle down.
- b. The baby takes a few ounces of formula from the bottle.

- c. He is constantly chewing on the nipple. It concerns me.
- d. He consistently is sucking.

ANS: D

Consistent sucking is a sign that the child is not ready to be weaned. A decreased interest in the bottle starts between 6 and 12 months. Throwing the bottle down is a sign of a decreased interest in the bottle. When the child is taking more fluids from a cup and decreasing amounts from the bottle, the child is demonstrating a readiness for weaning. Chewing on the nipple is another sign that the infant is ready to be weaned.

14. Which is appropriate play for a 6-month-old infant?

- a. Pat-a-cake, peek-a-boo
- b. Ball rolling, hide and seek game
- c. Bright rattles and tactile toys
- d. Push and pull toys

ANS: A

Six-month-old children enjoy playing pat-a-cake and peek-a-boo. Nine-month-old infants enjoy rolling a ball and playing hide and seek games. Four-month-old infants enjoy bright rattles and tactile toys. Twelve-month-old infants enjoy playing with push and pull toys.

15. Which statement by a mother indicates that her 5-month-old infant is ready for solid food?

- a. When I give my baby solid foods, she has difficulty getting it to the back of her throat to swallow.
- b. She has just started to sit up without any support.
- c. I am surprised that she only weighs 11 pounds. I expected her to have gained some weight.
- d. I find that she really has to be encouraged to eat.

ANS: B

Sitting is a sign that the child is ready to begin with solid foods. Children who are ready to manage solid foods are able to move food to the back of their throats to swallow. Infants who weigh less than 13 pounds and demonstrate a lack of interest in eating are not ready to be started on solid foods. Infants who are difficult feeders and do not demonstrate an interest in solid foods are not ready to be started on them.

16. A mother asks the nurse, When should I begin to clean my babys teeth? What is the best response for the nurse?

- a. You can begin when all her baby teeth are in.
- b. You can easily begin now. Just put some toothpaste on a gauze pad to clean the teeth.
- c. I dont think you have to worry about that until she can handle a toothbrush.
- d. You can begin as soon as your child has a tooth. The easiest way is to take cotton swabs or a face cloth and just wipe the teeth. Toothpaste is not necessary.

ANS: D

An infants teeth need to be cleaned as soon as they erupt. Cleaning the teeth with cotton swabs or a face cloth is appropriate. Waiting until all the baby teeth are in is inappropriate and prolongs cleaning until 2 years of age. Because toothpaste contains fluoride and infants will swallow the



toothpaste, parents should avoid its use. Even when a child has the ability to hold a toothbrush, the parent should continue cleaning the child's teeth.

**MULTIPLE RESPONSE**

1. A nurse has completed a teaching session for parents about baby-proofing the home. Which statements made by the parents indicate an understanding of the teaching? Select all that apply.

- a. We will put plastic fillers in all electrical plugs.
- b. We will place poisonous substances in a high cupboard.
- c. We will place a gate at the top and bottom of stairways.
- d. We will keep our household hot water heater at 130 degrees.
- e. We will remove front knobs from the stove.

ANS: A, C, E

By the time babies reach 6 months of age, they begin to become much more active, curious, and mobile. Putting plastic fillers on all electrical plugs can prevent an electrical shock. Putting gates at the top and bottom of stairways will prevent falls. Removing front knobs from the stove can prevent burns. Poisonous substances should be stored in a locked cabinet not in a cabinet that children can reach when they begin to climb. The household hot water heater should be turned down to 120 degrees or less.

**SHORT ANSWER**

1. An infant's length was 20 inches at birth. What should the nurse expect the infant's length to be at 6 months (in inches)?

ANS:

26

During the first 6 months, infants increase their birth length by approximately 1 inch (2.54 cm) per month, slowing to 1/2 inch (1.27 cm) per month over the next 6 months.

**MULTIPLE CHOICE**

1. The mother of a 14-month-old child is concerned because the child's appetite has decreased. The best response for the nurse to make to the mother is:

- a. It is important for your toddler to eat three meals a day and nothing in between.
- b. It is not unusual for toddlers to eat less.
- c. Be sure to increase your child's milk consumption, which will improve nutrition.
- d. Giving your child a multivitamin supplement daily will increase your toddler's appetite.

ANS: B

Physiologically, growth slows and appetite decreases during the toddler period. Toddlers need small, frequent meals. Nutritious selection throughout the day, rather than quantity, is more important with this age group. Milk consumption should not exceed 24 to 32 ounces daily. Increasing the amount of milk will only further decrease solid food intake. Supplemental vitamins are important for all children, but they do not increase appetite.

2. Which toy is the most developmentally appropriate for an 18- to 24-month-old child?

- a. A push and pull toy
- b. Nesting blocks
- c. A bicycle with training wheels
- d. A computer

ANS: A

Push and pull toys encourage large muscle activity and are appropriate for the child between 18 and 24 months of age. Nesting blocks are more appropriate for a 12- to 15-month-old child. A bicycle with training wheels is appropriate for a preschool or young school-age child. A computer can be appropriate as early as the preschool years.

3. Which is the priority concern in developing a teaching plan for the parents of a 15-month-old child?

- a. Toilet training guidelines
- b. Guidelines for weaning children from bottles
- c. Instructions on preschool readiness
- d. Instructions on a home safety assessment

ANS: D

Accidents are the major cause of death in children, including deaths caused by ingestion of poisonous materials. Home and environmental safety assessments are priorities in this age group because of toddlers' increased mobility, which puts them at greater risk in an unsafe environment. Although it is appropriate to give parents of a 15-month-old child toilet training guidelines, the child is not usually ready for toilet training, so it is not the priority teaching intervention. Parents of a 15-month-old child should have been advised to begin weaning from the breast or bottle at 6 to 12 months of age. Educating a parent about preschool readiness is important and can occur later in the parent's educational process. The priority teaching intervention for the parents of a 15-month-old child is the importance of a safe environment.

4. What is the primary purpose of a transitional object?

- a. It helps the parents deal with the guilt they feel when they leave the child.
- b. It keeps the child quiet at bedtime.

- c. It is effective in decreasing anxiety in the toddler.
- d. It decreases negativism and tantrums in the toddler.

ANS: C

Decreasing anxiety, particularly separation anxiety, is the function of a transitional object; it provides comfort to the toddler in stressful situations and helps make the transition from dependence to autonomy. A decrease in parental guilt (distress) is an indirect benefit of a transitional object. A transitional object may be part of a bedtime ritual, but it may not keep the child quiet at bedtime. A transitional object does not significantly affect negativity and tantrums, but it can comfort a child after tantrums.

5. A nurse is teaching parents of a toddler about language development. Which statement best identifies the characteristics of language development in a toddler?

- a. Language development skills slow during the toddler period.
- b. The toddler understands more than he or she can express.
- c. Most of the toddlers speech is not easily understood.
- d. The toddlers vocabulary contains approximately 600 words.

ANS: B

The toddlers ability to understand language (receptive language) exceeds the childs ability to speak it (expressive language). Although language development varies in relationship to physical activity, language skills are rapidly accelerating by 15 to 24 months of age. By 2 years of age, 60% to 70% of the toddlers speech is understandable. The toddlers vocabulary contains approximately 300 or more words.

6. Parents of a toddler ask the nurse when they should start toilet training. Which statement best addresses their concerns

- a. When the child is 18 months of age
- b. When the child exhibits signs of physical and psychological readiness
- c. When the child has been walking for 9 months
- d. When the child is able to sit on the potty for 10 to 15 minutes

ANS: B

Neurological development is completed at approximately 18 months of age. Parents need to know that both physical and psychological readiness are necessary for toilet training to be successful. The child needs to demonstrate signs of bowel or bladder control before attempting toilet training. Waiting until 24 to 30 months of age makes the task easier; toddlers are less negative, more willing to control their sphincters, and want to please their parents. One of the physical signs of readiness for toilet training is that the child has been walking for 1 year. The ability to sit on the potty 10 to 15 minutes may demonstrate parental control rather than being a sign of developmental readiness for toilet training.

7. Which statement by a mother of a toddler indicates a correct understanding of the use of discipline?

- a. I always include explanations and morals when I am disciplining my toddler.
- b. I always try to be consistent when disciplining the children, and I correct my children at the time they are misbehaving.

- 
- c. I believe that discipline should be done by only one family member.
  - d. My rule of thumb is no more than one spanking a day.
- 

ANS: B

Consistent and immediate discipline for toddlers is the most effective approach. Unless disciplined immediately, the toddler will have difficulty connecting the discipline with the behavior. The toddlers cognitive level of development precludes the use of explanations and morals as a part of discipline. Discipline for the toddler should be immediate; therefore, the family member caring for the child should provide discipline to the toddler when it is necessary. Discipline is required for unacceptable behavior, and the one-spanking-a-day rule contradicts the concept of a consistent response to inappropriate behavior. Additionally, spanking is an inappropriate method of disciplining a child.

8. Which comment indicates that the mother of a toddler needs further teaching about dental care?

- 
- a. We use well water so I give my toddler fluoride supplements.
  - b. My toddler brushes his teeth with my help.
  - c. My child will not need a dental checkup until his permanent teeth come in.
  - d. I use a small nylon bristle brush for my toddlers teeth.
- 

ANS: C

Children should first see the dentist 6 months after the first primary tooth erupts and no later than age 30 months. Toddlers need fluoride supplements when they use a water supply that is not fluorinated. Toddlers need supervision with dental care. The parent should finish brushing areas not reached by the child. A small nylon bristle brush works best for cleaning toddlers teeth.

9. Which assessment finding in a preschooler would suggest the need for further investigation?

- 
- a. The child is able to dress independently.
  - b. The child rides a tricycle.
  - c. The child has an imaginary friend.
  - d. The child has a 2-pound weight gain in 12 months.
- 

ANS: D

Preschool children gain an average of 5 pounds a year. A gain of only 2 pounds is less than half of the expected weight gain and should be investigated. A preschool child should be able to dress independently and be able to ride a tricycle. Imaginary friends are common for preschoolers.

10. Which is the most appropriate action for the nurse to take when telling a preschool child about an upcoming procedure?

- 
- a. Explain all the information in detail to the child.
  - b. Speak loudly and clearly to the child.
  - c. Inform the parents of the procedure and ask them to tell the child.
  - d. Use symbolic play to explain the procedure.
- 

ANS: D

Symbolic play is important for emotional development because it allows the child to work through distressing feelings and can be therapeutic. It is inappropriate to give a preschooler all the information in detail. The child needs to understand what is going to happen to him without

explicit details of the procedure. Speaking in clear sentences with simple words is important, but the conversation should be conducted at a nonthreatening normal sound level. The nurse has the most knowledge and best ability for explaining the procedure to the child; however, the parents can be an important resource when explaining the procedure.

11. In caring for a 4-year-old child with a diagnosis of suspected child abuse, which is the best nursing intervention?

- a. Avoid touching the child.
- b. Provide the child with play situations that allow for disclosure.
- c. Discourage the child from remembering the incident.
- d. Deny the suspected perpetrator visiting rights to the child.

ANS: B

Play allows the child to disclose what happened to him or her without having to talk about the incident. Symbolic play is important for emotional development and it allows the child to work through distressing feelings. All children need to be touched. What is important is to tell the child in simple, clear terms what you are doing and why you are doing it. Nurses have the opportunity to teach children the normal, healthy boundaries of their bodies and what constitutes inappropriate behavior. If the child chooses to remember what happened, it is inappropriate to discourage it. It is important to listen to the child in a nonjudgmental way, allowing the child to discuss what happened, to make statements, or to ask questions. It is not the nurses role or responsibility to restrict visitors unless child safety is an issue. The child may be negatively affected if a caregiver, who may be the abuser, does not visit.

12. Which is helpful to tell a mother who is concerned about preventing sleep problems in her preschool child?

- a. Have the child always sleep in a quiet, darkened room.
- b. Provide high-carbohydrate snacks before bedtime.
- c. Communicate with the child's daytime caretaker to encourage a longer nap.
- d. Use a nightlight in the child's room.

ANS: D

The preschooler has a great imagination. Sounds and shadows can have a negative effect on sleeping behavior. Nightlights provide the child with the ability to visualize the environment and decrease the fear felt in a dark room. A dark, quiet room may be scary to a preschooler. High-carbohydrate snacks increase energy and do not promote relaxation. Taking a longer nap during the day will not cause the child to sleep longer at night. A child who has slept for a long time at the babysitters may not be ready to sleep again.

13. Which statement is true about the care of the toddlers teeth?

- a. Because deciduous teeth are not permanent, they are not important to the child.
- b. Children can be encouraged to brush their teeth after the teeth have been thoroughly cleaned by the parent.
- c. Secondary tooth eruption begins at 4 to 5 years of age.
- d. Fluoride supplements can be discontinued when the secondary teeth erupt.

ANS: B

Toddlers lack the manual dexterity to remove plaque adequately, so parents must assume this responsibility. Deciduous teeth are important because they maintain spacing and play an important role in the growth and development of the jaws and face and in speech development. Secondary teeth erupt at about 6 years of age. If the family does not live in an area in which fluoride is included in the water supply, fluoride supplements should be continued.

14. What do parents of preschool children need to understand about discipline?

- a. Both parents and the child should agree on the method of discipline.
- b. Discipline should involve some physical restriction.
- c. The method of discipline should be consistent with the discipline methods of the child's peers.
- d. Discipline should include positive reinforcement of desired behaviors.

ANS: D

Effective discipline strategies should involve a comprehensive approach that includes consideration of the parent-child relationship, reinforcement of desired behaviors, and consequences for negative behaviors. Discipline does not need to be agreed on by the child. Both parents should be in agreement so the discipline is consistently applied. Discipline does not necessarily need to include physical restriction and does not need to be consistent with that of the child's peers.

15. Parents of a preschool child ask the nurse, What can we do to prepare our child for kindergarten? In response, the nurse should include which critical factor in preparing a child for kindergarten entry?

- a. The child's ability to sit still
- b. The child's sense of learned helplessness
- c. The parent's interactions and responsiveness to the child
- d. Attending a preschool program

ANS: C

Interactions between the parent and child are an important factor in the development of academic competence. Parent encouragement and support maximize a child's potential. The child's ability to sit still is important to learning; however, parental responsiveness and involvement are more important factors. Learned helplessness is the result of a child feeling that he or she has no effect on the environment and his or her actions do not matter. Parents who are actively involved in a supportive learning environment will demonstrate a more positive approach to learning. Preschool and day care programs can supplement the developmental opportunities provided by parents at home, but they are not critical in preparing a child for entering kindergarten.

#### **MULTIPLE RESPONSE**

1. Which play patterns does a 3-year-old child typically display? Select all that apply.

- a. Imaginary play
- b. Parallel play
- c. Cooperative play
- d. Structured play

ANS: A, B, C

Children between the ages of 3 and 5 years enjoy parallel and associative play. Children learn to share and cooperate as they play in small groups. Play is often imitative, dramatic, and creative. Imaginary friends are common near the age of 3 years. Structured play is typical of school-age children.

2. A nurse is planning care for a hospitalized toddler in the preoperational thinking stage. Which characteristics should the nurse expect in this stage? Select all that apply.

- a. Concrete thinking
- b. Egocentrism
- c. Animism
- d. Magical thought
- e. Ability to reason

ANS: B, C, D

The characteristics of preoperational thinking that occur for the toddler include egocentrism (views everything in relation to self), animism (believes that inert objects are alive), and magical thought (believes that thinking something causes that event). Concrete thinking is seen in school age children and ability to reason is seen with adolescents.

#### OTHER

1. Place in order the gross motor developmental milestones a nurse expects to assess in a toddler. Begin with the earliest gross motor milestone expected and progress to the last gross motor milestone attained. Use the following format for your answers: A, B, C, D

- a. Throws a ball overhand
- b. Walks
- c Kicks a ball
- d. Runs

ANS:

B, D, A, C

The toddler walks between 12 months and 15 months of age. The next gross motor milestone seen in the toddler is running. The toddler runs soon after learning how to walk, but may fall down. By the end of 24 months the toddler can throw a ball overhand. The toddler does not kick a ball until after 24 months of age.

#### Chapter 17: Care of the Preschooler

#### MULTIPLE CHOICE

1. In terms of fine motor development, what should the 3-year-old child be expected to do?

- a. Tie shoelaces.
- b. Copy (draw) a circle.
- c. Use scissors or a pencil very well.
- d. Draw a person with seven to nine parts.

ANS: B

Three-year-old children are able to accomplish the fine motor skill of copying (drawing) a circle. The ability to tie shoelaces, to use scissors or a pencil very well, and to draw a person with seven to nine parts are fine motor skills of 5-year-old children.

2. According to Piaget, magical thinking is the belief of which?

- a. Thoughts are all powerful.
- b. God is an imaginary friend.
- c. Events have cause and effect.
- d. If the skin is broken, the insides will come out.

ANS: A

Because of their egocentrism and transductive reasoning, preschoolers believe that thoughts are all powerful. Believing God is an imaginary friend is an example of concrete thinking in a preschoolers spiritual development. Cause-and-effect implies logical thought, not magical thinking. Believing that if the skin is broken, the insides will come out is an example of concrete thinking in development of body image.

3. In terms of cognitive development, a 5-year-old child should be expected to do which?

- a. Think abstractly.
- b. Use magical thinking.
- c. Understand conservation of matter.
- d. Understand another persons perspective.

ANS: B

Magical thinking is believing that thoughts can cause events. An example is thinking of the death of a parent might cause it to happen. Abstract thought does not develop until the school-age years. The concept of conservation is the cognitive task of school-age children, ages 5 to 7 years. A 5-year-old child cannot understand another persons perspective.

4. The nurse is caring for a hospitalized 4-year-old boy. His parents tell the nurse they will be back to visit at 6 PM. When he asks the nurse when his parents are coming, what would the nurses best response be?

- a. They will be here soon.
- b. They will come after dinner.
- c. Let me show you on the clock when 6 PM is.
- d. I will tell you every time I see you how much longer it will be.

ANS: B

A 4-year-old child understands time in relation to events such as meals. Children perceive soon as a very short time. The nurse may lose the childs trust if his parents do not return in the time he perceives as soon. Children cannot read or use a clock for practical purposes until age 7 years. I will tell you every time I see you how much longer it will be assumes the child understands the concepts of hours and minutes, which does not occur until age 5 or 6 years.

5. A 4-year-old boy is hospitalized with a serious bacterial infection. He tells the nurse that he is sick because he was bad. What is the nurses best interpretation of this comment?

- a. Sign of stress
- b. Common at this age



- c. Suggestive of maladaptation
- d. Suggestive of excessive discipline at home

ANS: B

Preschoolers cannot understand the cause and effect of illness. Their egocentrism makes them think they are directly responsible for events, making them feel guilt for things outside of their control. Children of this age react to stress by regressing developmentally or acting out. Maladaptation is unlikely. This comment does not imply excessive discipline at home.

6. A 4-year-old child tells the nurse that she doesn't want another blood sample drawn because I need all of my insides and I don't want anyone taking them out. What is the nurse's best interpretation of this?

- a. The child is being overly dramatic.
- b. The child has a disturbed body image.
- c. Preschoolers have poorly defined body boundaries.
- d. Preschoolers normally have a good understanding of their bodies.

ANS: C

Preschoolers have little understanding of body boundaries, which leads to fears of mutilation. The child is not capable of being dramatic at this age. She truly has fear. Body image is just developing in school-age children. Preschoolers do not have good understanding of their bodies.

7. Which type of play is most typical of the preschool period?

- a. Team
- b. Parallel
- c. Solitary
- d. Associative

ANS: D

Associative play is group play in similar or identical activities but without rigid organization or rules. School-age children play in teams. Parallel play is that of toddlers. Solitary play is that of infants.

8. What characteristic best describes the language skills of a 3-year-old child?

- a. Asks meanings of words
- b. Follows directional commands
- c. Can describe an object according to its composition
- d. Talks incessantly regardless of whether anyone is listening

ANS: D

Because of the dramatic vocabulary increase at this age, 3-year-old children are known to talk incessantly regardless of whether anyone is listening. A 4- to 5-year-old child asks lots of questions and can follow simple directional commands. A 6-year-old child can describe an object according to its composition.

9. During a well-child visit, the father of a 4-year-old boy tells the nurse that he is not sure if his son is ready for kindergarten. The boy's birthday is close to the cut-off date, and he has not attended preschool. What is the nurse's best recommendation?

- a. Start kindergarten.
- b. Talk to other parents about readiness.
- c. Perform a developmental screening.
- d. Postpone kindergarten and go to preschool.

ANS: C

A developmental assessment with a screening tool that addresses cognitive, social, and physical milestones can help identify children who may need further assessment. A readiness assessment involves an evaluation of skill acquisition. Stating the child should start kindergarten or go to preschool and postpone kindergarten does not address the father's concerns about readiness for school. Talking to other parents about readiness does not ascertain if the child is ready and does not address the father's concerns.

10. Parents tell the nurse they found their 3-year-old daughter and a male cousin of the same age inspecting each other closely as they used the bathroom. What is the most appropriate recommendation for the nurse to make?

- a. Punish the children so this behavior stops.
- b. Neither condone nor condemn the curiosity.
- c. Get counseling for this unusual and dangerous behavior.
- d. Allow the children unrestricted permission to satisfy this curiosity.

ANS: B

Three-year-old children become aware of anatomic differences and are concerned about how the other sex works. Such exploration should not be condoned or condemned. Children should not be punished for this normal exploration. This is age appropriate and not dangerous behavior. Encouraging the children to ask their parents questions and redirecting their activity is more appropriate than giving permission.

11. A boy age 4 1/2 years has been having increasingly frequent angry outbursts in preschool. He is aggressive toward the other children and the teachers. This behavior has been a problem for approximately 8 to 10 weeks. His parent asks the nurse for advice. What is the most appropriate intervention?

- a. Refer the child for a professional psychosocial assessment.
- b. Explain that this is normal in preschoolers, especially boys.
- c. Encourage the parent to try more consistent and firm discipline.
- d. Talk to the preschool teacher to obtain validation for behavior parent reports.

ANS: A

The preschool years are a time when children learn socially acceptable behavior. The difference between normal and problematic behavior is not the behavior but the severity, frequency, and duration. This child's behavior meets the definition requiring professional evaluation. Some aggressive behavior is within normal limits, but at 8 to 10 weeks, this behavior has persisted too long. There is no indication that the parent is using inconsistent discipline. A part of the evaluation is to obtain validation for behavior parent reports.

12. What dysfunctional speech pattern is a normal characteristic of the language development of a preschool child?

- a. Lisp
- b. Echolalia
- c. Stammering
- d. Repetition without meaning

ANS: C

Stammering and stuttering are normal dysfluency in preschool-age children. Lisps are not a normal characteristic of language development. Echolalia and repetition are traits of toddlers language.

13. The parent of a 4-year-old boy tells the nurse that the child believes monsters and bogeymen are in his bedroom at night. What is the nurses best suggestion for coping with this problem?

- a. Let the child sleep with his parents.
- b. Keep a night light on in the childs bedroom.
- c. Help the child understand that these fears are illogical.
- d. Tell the child that monsters and bogeymen do not exist.

ANS: B

Involve the child in problem solving. A night light shows a child that imaginary creatures do not lurk in the darkness. Letting the child sleep with his parents will not get rid of the fears. A 4-year-old child is in the preconceptual stage and cannot understand logical thought.

14. What is descriptive of the nutritional requirements of preschool children?

- a. The quality of the food consumed is more important than the quantity.
- b. The average daily intake of preschoolers should be about 3000 calories.
- c. Nutritional requirements for preschoolers are very different from requirements for toddlers.
- d. Requirements for calories per unit of body weight increase slightly during the preschool period.

ANS: A

Parents need to be reassured that the quality of food eaten is more important than the quantity. Children are able to self-regulate their intake when offered foods high in nutritional value. The average daily caloric intake should be approximately 1800 calories. Toddlers and preschoolers have similar nutritional requirements. There is an overall slight decrease in needed calories and fluids during the preschool period.

15. A child age 4 1/2 years sometimes wakes her parents up at night screaming, thrashing, sweating, and apparently frightened, yet she is not aware of her parents presence when they check on her. She lies down and sleeps without any parental intervention. This is most likely what?

- a. Nightmare
- b. Sleep terror
- c. Sleep apnea
- d. Seizure activity

ANS: B

This is a description of a sleep terror. The child is observed during the episode and not disturbed unless there is a possibility of injury. A child who awakes from a nightmare is distressed. She is

aware of and reassured by the parents presence. This is not the case with sleep apnea. This behavior is not indicative of seizure activity.

16. During the preschool period, the emphasis of injury prevention should be placed on what?

- a. Limitation of physical activities
- b. Punishment for unsafe behaviors
- c. Constant vigilance and protection
- d. Teaching about safety and potential hazards

ANS: D

Education about safety and potential hazards is appropriate for preschoolers because they can begin to understand dangers. Limitation of physical activities is not appropriate. Punishment may make children scared of trying new things. Constant vigilance and protection are not practical at this age because preschoolers are becoming more independent.

17. The nurse is talking to the parent of a 5-year-old child who refuses to go to sleep at night. What intervention should the nurse suggest in helping the parent to cope with this sleep disturbance?

- a. Establish a consistent punishment if the child does not go to bed when told.
- b. Allow the child to fall asleep in a different room and then gently move the child to his or her bed.
- c. Establish limited rituals that signal readiness for bedtime.
- d. Allow the child to watch television until almost asleep.

ANS: C

An appropriate intervention for a child who resists going to bed is to establish limited rituals such as a bath or story that signal readiness for bed and consistently follow through with the ritual. Punishing the child will not alleviate the resistance problem and may only add to the frustration. Allowing the child to fall asleep in a different room and to watch television to fall asleep are not recommended approaches to sleep resistance.

18. At a seminar for parents with preschool-age children, the nurse has discussed anticipatory tasks during the preschool years. Which statement by a parent should indicate a correct understanding of the teaching?

- a. I should be worried if my 4-year-old child has an increase in sexual curiosity because this is a sign of sexual abuse.
- b. I should expect my 5-year-old to change from a tranquil child to an aggressive child when school starts.
- c. I should be concerned if my 4-year-old child starts telling exaggerated stories and has an imaginary playmate, since these could be signs of stress.
- d. I should expect my 3-year-old child to have a more stable appetite and an increase in food selections.

ANS: D

A 3-year-old child exhibits a more stable appetite than during the toddler years and is more willing to try different foods. A 4-year-old child is imaginative and indulges in telling tall tales and may have an imaginary playmate; these are normal findings, not signs of stress. Also a 4-year-old child has an increasing curiosity in sexuality, which is not a sign of child abuse. A 5-year-old child is usually tranquil, not aggressive like a 4-year-old child.

19. The nurse is explaining average weight gain during the preschool years to a group of parents. Which average weight gain should the nurse suggest to the parents?

- a. 1 to 2 kg
- b. 2 to 3 kg
- c. 3 to 4 kg
- d. 4 to 5 kg

ANS: B

The average weight gain remains approximately 2 to 3 kg (4.56.5 lb) per year during the preschool period.

20. The nurse is planning to bring a preschool child a toy from the playroom. What toy is appropriate for this age group?

- a. Building blocks
- b. A 500-piece puzzle
- c. Paint by number picture
- d. Farm animals and equipment

ANS: D

The most characteristic and pervasive preschooler activity is imitative, imaginative, and dramatic play. Farm animals and equipment would provide hours of self-expression. Building blocks are appropriate for older infants and toddlers. A 500-piece puzzle or a paint by number picture would be appropriate for a school-age child.

21. The nurse is conducting an assessment of fine motor development in a 3-year-old child. Which is the expected drawing skill for this age?

- a. Can draw a complete stick figure
- b. Holds the instrument with the fist
- c. Can copy a triangle and diamond
- d. Can copy a circle and imitate a cross

ANS: D

A 3-year-old child copies a circle and imitates a cross and vertical and horizontal lines. He or she holds the writing instrument with the fingers rather than the fist. A 3-year-old is not able to draw a complete stick figure but draws a circle, later adds facial features, and by age 5 or 6 years can draw several parts (head, arms, legs, body, and facial features). Copying a triangle and diamond are mastered sometime between ages 5 and 6 years.

22. What signals the resolution of the Oedipus or Electra complex?

- a. Learns sex differences
- b. Learns sexually appropriate behavior
- c. Identifies with the same-sex parent
- d. Has guilt over feelings toward the father or mother

ANS: C

The resolution of the Oedipus or Electra complex is identification with the same-sex parent. Learning sex differences and sexually appropriate behavior is a goal in further differentiation of

oneself but does not signal the resolution of the Oedipus or Electra complex. Guilt over feelings toward the father or mother is seen as a stage in the complex, not the resolution.

23. The nurse is explaining the preconventional stage of moral development to a group of nursing students. What characterizes this stage?

- a. Children in this stage focus on following the rules.
- b. Children in this stage live up to social expectations and roles.
- c. Children in this stage have a concrete sense of justice and fairness.
- d. Children in this stage have little, if any, concern for why something is wrong.

ANS: D

Young children's development of moral judgment is at the most basic level in the preconventional stage. They have little, if any, concern for why something is wrong. Following the rules, living up to social expectations, and having a concrete sense of justice and fairness are characteristics in the conventional stage.

24. The nurse is teaching parents about instilling a positive body image for the preschool age. What statement made by the parents indicates the teaching is understood?

- a. We will make sure our child is praised about his or her looks.
- b. We will help our child compare his or her size with other children.
- c. We understand our child will have well-defined body boundaries.
- d. We will be sure our child understands about being little for his or her age.

ANS: A

Because these are formative years for both boys and girls, parents should make efforts to instill positive principles regarding body image. Children at this age are aware of the meaning of words such as pretty or ugly, and they reflect the opinions of others regarding their own appearance. Despite the advances in body image development, preschoolers have poorly defined body boundaries. By 5 years of age, children compare their size with that of their peers and can become conscious of being large or short, especially if others refer to them as so big or so little for their age. Parents should not suggest their child compare him- or herself with other children in regard to size, and parents should not focus on their child's size as being little.

25. The nurse has just given a subcutaneous injection to a preschool child, and the child asks for a Band-Aid over the site. Which action should the nurse implement?

- a. Place a Band-Aid over the site.
- b. Massage the injection site with an alcohol swab.
- c. Show the child there is no bleeding from the site.
- d. Explain that a Band-Aid is not needed after a subcutaneous injection.

ANS: A

Despite the advances in body image development, preschoolers have poorly defined body boundaries and little knowledge of their internal anatomy. Intrusive experiences are frightening, especially those that disrupt the integrity of the skin (e.g., injections and surgery). They fear that all their blood and insides can leak out if the skin is broken. Therefore, preschoolers may believe it is critical to use bandages after an injury. The nurse should place a Band-Aid over the site.

26. Parents of a preschool child tell the nurse, Our child seems to have many imaginary fears. What suggestion should the nurse give to the parents to help their child resolve the fears?

- a. Ignore the fears; they will go away.
- b. Explain to your child the fears are not real.
- c. Give your child some new toys to allay the fears.
- d. Help your child to resolve the fears through play activities.

ANS: D

Preschoolers are able to work through many of their unresolved fears, fantasies, and anxieties through play, especially if guided with appropriate play objects (e.g., dolls or puppets) that represent family members, health professionals, and other children. The fears should not be ignored because they may escalate. Preschoolers are not cognitively prepared for explanations about the fears. They gain security and comfort from familiar objects such as toys, dolls, or photographs of family members, so new toys should not be introduced.

27. A parent taking a preschool child to school on the first day asks the nurse, What do I do if my child wants me to stay? What is an appropriate response by the nurse?

- a. It is better if you do not stay.
- b. It is best to stay and participate in the activities.
- c. It is OK to stay part of the first day, but be inconspicuous.
- d. It would be better to have a good friend take your child to class the first day.

ANS: C

On the first day of preschool, in some instances, it is helpful for parents to remain for at least part of the first day until the child is comfortable. If parents stay, they should be available to the child but inconspicuous. It would not be appropriate not to stay, to have someone else take the child to school, or to stay and participate in activities.

28. What should the nurse suggest to parents of preschoolers about sensitive questions regarding sex?

- a. Distract your child from the topic.
- b. Offer complete factual information.
- c. Dismiss the topic until the child is older.
- d. Find out what your child knows or thinks.

ANS: D

Two rules govern answering sensitive questions about topics such as sex. The first is to find out what children know and think. By investigating the theories children have produced as a reasonable explanation, parents can not only give correct information but also help children understand why their explanation is inaccurate. Another reason for ascertaining what the child thinks before offering any information is to avoid giving an unasked for answer. The child should not be distracted from the topic. If parents offer too much information, the child will simply become bored or end the conversation with an irrelevant question. What matters is that parents are approachable and do not dismiss their child's inquiries.

#### **MULTIPLE RESPONSE**

1. What developmental achievements are demonstrated by a 4-year-old child? (*Select all that apply.*)

- a. Cares for self totally
- b. Throws a ball overhead
- c. Has a vocabulary of 1500 words
- d. Can skip and hop on alternate feet
- e. Tends to be selfish and impatient
- f. Commonly has an imaginary playmate

ANS: B, C, E, F

Developmental achievements for a 4-year-old child include throwing a ball overhead, having a vocabulary of 1500 words, tending to be selfish and impatient, and perhaps having an imaginary playmate. Caring for oneself totally and skipping and hopping on alternate feet are achievements normally seen in the 5-year-old age group.

2. Parents are worried that their preschool-aged child is showing hyperaggressive behavior. What are signs of hyperaggressive behavior? *(Select all that apply.)*

- a. Disrespect
- b. Noncompliance
- c. Infrequent impulsivity
- d. Occasional temper tantrums
- e. Unprovoked physical attacks on other children

ANS: A, B, E

Hyperaggressive behavior in preschoolers is characterized by unprovoked physical attacks on other children and adults, destruction of others property, frequent intense temper tantrums, extreme impulsivity, disrespect, and noncompliance.

3. The nurse understands that traits of gifted children include what? *(Select all that apply.)*

- a. Fair memory skills
- b. Limited sense of humor
- c. Perfectionism as a focus
- d. Inquisitive; always asking questions
- e. Displays intense feelings and emotion

ANS: C, D, E

Characteristics of gifted children include perfectionism as a focus; inquisitive, always asking questions; and displaying intense feelings and emotion. Memory skills are pronounced, and humor is exceptional.

4. What are common causes of speech problems? *(Select all that apply.)*

- a. Autism
- b. Prematurity
- c. Hearing loss
- d. Developmental delay
- e. Overstimulated environment



ANS: A, C, D

Common causes of speech problems are hearing loss, developmental delay, autism, lack of environmental stimulation, and physical conditions that impede normal speech production. Prematurity and an overstimulated environment are not causes of speech problems.

5. What are sources of stress in preschoolers? (*Select all that apply.*)

- a. Shares possessions
- b. Damages or destroys objects
- c. May fear dogs or other animals
- d. Seems to be in perpetual motion
- e. May stutter or stumble over words

ANS: B, C, D, E

Sources of stress in preschoolers include damaging or destroying objects, fearing dogs or other animals, in perpetual motion, and may stutter or stumble over words. Guarding possessions, not sharing, is a source of stress.

6. What is the reason pedestrian motor vehicle injuries increase in the preschool age? (*Select all that apply.*)

- a. Riding tricycles
- b. Running after balls
- c. Playing in the street
- d. Crossing streets at the crosswalk
- e. Crossing streets with an adult

ANS: A, B, C

Pedestrian motor vehicle injuries increase because of activities such as playing in the street, riding tricycles, running after balls, and forgetting safety regulations when crossing streets. Crossing streets at the crosswalk or with an adult are safety measures.

7. Parents ask the nurse, Should we be concerned our preschooler has an imaginary friend, and how should we react? Which responses should the nurse give to the parents? (*Select all that apply.*)

- a. The imaginary playmate is a sign of health.
- b. You can acknowledge the presence of the imaginary companion.
- c. It is normal for a preschool-aged child to have an imaginary friend.
- d. If your child wants a place setting at the table for the child, it is best to refuse.
- e. It is OK to allow the child to blame the imaginary playmate to avoid punishment.

ANS: A, B, C

Parents should be reassured that the child's fantasy is a sign of health that helps differentiate between make-believe and reality. Parents can acknowledge the presence of the imaginary companion by calling him or her by name and even agreeing to simple requests such as setting an extra place at the table, but they should not allow the child to use the playmate to avoid punishment or responsibility.

8. The nurse is teaching parents of a 3-year-old child about gross motor developmental milestones. What milestones should the nurse include in the teaching session? *(Select all that apply.)*

- a. Rides a tricycle
- b. Catches a ball reliably
- c. Jumps off the bottom step
- d. Stands on one foot for a few seconds
- e. Walks downstairs using alternate footing

ANS: A, C, D

The gross motor milestones of a 3-year-old child include riding a tricycle, jumping off the bottom step, and standing on one foot for a few seconds. Catching a ball reliably and walking downstairs using alternate footing are gross motor milestones seen at the age of 4 years.

9. The nurse is teaching parents of a 4-year-old child about fine motor developmental milestones. What milestones should the nurse include in the teaching session? *(Select all that apply.)*

- a. Can lace shoes
- b. Uses scissors successfully
- c. Builds a tower of nine or 10 cubes
- d. Builds a bridge with three cubes
- e. Adeptly places small pellets in a narrow-necked bottle

ANS: C, D, E

The fine motor milestones of a 4-year-old child include building a tower of nine or 10 cubes, building a bridge with three cubes, and adeptly placing small pellets in a narrow-necked bottle. Lacing shoes and using scissors successfully are fine motor milestones seen at the age of 5 years.

10. The nurse is teaching parents of a 3-year-old child about language developmental milestones. What milestones should the nurse include in the teaching session? *(Select all that apply.)*

- a. Asks many questions
- b. Names one or more colors
- c. Repeats sentence of six syllables
- d. Uses primarily telegraphic speech
- e. Has a vocabulary of 1500 words or more

ANS: A, C, D

The language milestones of a 3-year-old child include asking many questions, repeating a sentence of six syllables, and using primarily telegraphic speech. Naming one or more colors and having a vocabulary of 1500 words or more are language milestones seen at the age of 4 years.

11. The nurse is teaching parents of a 4-year-old child about socialization developmental milestones. What milestones should the nurse include in the teaching session? *(Select all that apply.)*

- a. Very independent
- b. Has mood swings

- 
- c. Has better manners
  - d. Eager to do things right
  - e. Tends to be selfish and impatient
- 

ANS: A, B, E

The socialization milestones of a 4-year-old child include being very independent, having mood swings, and tending to be selfish and impatient. Having better manners and being eager to do things right are socialization milestones seen at the age of 5 years.

## Chapter 18: Care of the School-Age Child

### MULTIPLE CHOICE

1. Which statement made by a mother of a school-age boy indicates a need for further teaching?

- 
- a. My child is playing soccer this year.
  - b. He is always busy with his friends playing games. He is very active.
  - c. I limit his television watching to about 2 hours a day.
  - d. I am glad his coach emphasizes the importance of winning in today's society.
- 

ANS: D

Team sports are important for the development of sportsmanship and teamwork and for exercise and refinement of motor skills. A coach who emphasizes winning and strict discipline is not appropriate for children in this age group. Team sports such as soccer are appropriate for exercise and refinement of motor skills. School-age children need to participate in physical activities, which contribute to their physical fitness skills and well-being. Limiting television to 2 hours a day is an appropriate restriction. School-age children should be encouraged to participate in physical activities.

2. A nurse has completed a teaching session for parents on school-age children's expected developmental milestones. The parents need further teaching if they indicate which behavior is expected in a school-age child?

- 
- a. Experiments with profanity and dirty jokes
  - b. Laughs at silly jokes and enjoys using words
  - c. Understands the concept of conservation
  - d. Engages in fantasy and magical thinking
- 

ANS: D

The preschool child engages in fantasy and magical thinking. The school-age child moves away from this type of thinking and becomes more skeptical and logical. Belief in Santa Claus or the Easter Bunny ends in this period of development. The school-age child goes through a period in which profanity and dirty jokes are explored. This behavior is not unusual for the school-age child. The school-age child has a sense of humor. His increased language mastery and increased logic allow for appreciation of plays on words, jokes, and incongruities. The school-age child understands conservation or that properties of objects do not change when their order, form, or appearance does.

3. The ability to mentally understand that  $1 + 3 = 4$  and  $4 - 1 = 3$  occurs in which stage of cognitive development?

- a. Concrete operations stage
- b. Formal operations stage
- c. Intuitive thought stage
- d. Preoperations stage

ANS: A

By 7 to 8 years of age, the child is able to retrace a process (reversibility) and has the skills necessary for solving mathematical problems. This stage is called concrete operations. The formal operations stage deals with abstract reasoning and does not occur until adolescence. Thinking in the intuitive stage is based on immediate perceptions. A child in this stage often solves problems by random guessing. In preoperational thinking, the child is usually able to add  $1 + 3 = 4$  but is unable to retrace the process.

4. Which activity is most appropriate for developing fine motor skills in the school-age child?

- a. Drawing
- b. Singing
- c. Soccer
- d. Swimming

ANS: A

Activities such as drawing, building models, and playing a musical instrument increase the school-age child's fine motor skills. Singing is an appropriate activity for the school-age child, but it does not increase fine motor skills. The school-age child needs to participate in group activities to increase both gross motor skills and social skills but group activities do not increase fine motor skills. Swimming is an activity that also increases gross motor skills.

5. A school nurse is teaching a health class for fifth grade children. The nurse plans to include which statement to best describe growth in the early school-age period?

- a. Boys grow faster than girls do until around age 10.
- b. Puberty occurs earlier in boys than in girls.
- c. Puberty occurs at the same age for all races and ethnicities.
- d. It is a period of rapid physical growth.

ANS: A

During the school-age developmental period, boys are approximately 1 inch taller and 2 pounds heavier than girls. Puberty occurs 1.5 to 2 years later in boys, which is developmentally later than puberty in girls (not unusual in 9- or 10-year-old girls). Puberty occurs approximately 1 year earlier in African-American girls than white girls. Physical growth is slow and steady during the school-age years.

6. The comment that is most developmentally typical of a 7-year-old boy is:

- a. I am a Power Ranger, so don't make me angry.
- b. I don't know whether I like Mary or Joan better.
- c. My mom is my favorite person in the world.

- 
- d. Jimmy is my best friend.

ANS: D

School-age children form friendships with peers of the same sex. Magical thinking is developmentally appropriate for the preschooler. Opposite-sex friendships are not typical for the 7-year-old child. Seven-year-old children socialize with their peers, not their parents.

7. A school nurse is conducting a class on safety for parents of school-age children. Which statement indicates the parents need further teaching?

- 
- a. Our child needs to wear sunscreen when playing soccer.
- 
- b. Our young school-age child will continue to ride belted in the back seat.
- 
- c. We will monitor the volume when our child is listening to music on the i-Pod with ear buds.
- 
- d. Were glad our child will be home after school to let repairmen in while we are working.

ANS: D

Safety teaching for school-age children includes sun protection and wearing sunscreen when participating in sports, having the child belted in the back seat of the car away from airbags, and avoidance of listening to loud music through earphones. A child home alone should not allow others into the home if the parent is not there.

8. Identify the statement that is the most accurate about moral development in the 9-year-old school-age child.

- 
- a. Right and wrong are based on physical consequences of behavior.
- 
- b. The child obeys parents because of fear of punishment.
- 
- c. The school-age child conforms to rules to please others.
- 
- d. Parents are the determiners of right and wrong for the school-age child.

ANS: C

The 7- to 12-year-old child bases right and wrong on a good-boy or good-girl orientation in which the child conforms to rules to please others and avoid disapproval. Children 4 to 7 years of age base right and wrong on consequences; consequences are the most important consideration for the child between 4 and 7 years of age. Parents determine right and wrong for the child younger than 4 years of age.

9. Which parental behavior is the most important in fostering moral development?

- 
- a. Telling the child what is right and wrong
- 
- b. Vigilantly monitoring the child and her peers
- 
- c. Weekly family meetings to discuss behavior
- 
- d. Living as the parents say they believe

ANS: D

Parents living what they believe give nonambivalent messages and foster the child's moral development and reasoning. Telling the child what is right and wrong is not effective unless the child has experienced what he or she hears. Parents need to live according to the values they are teaching to their children. Vigilant monitoring of the child and his or her peers is an inappropriate action for the parent to initiate. It does not foster moral development and reasoning

in the child. Weekly family meetings to discuss behaviors may or may not be helpful in the development of moral reasoning.

10. Which behavior by parents or teachers will best assist the child in negotiating the developmental task of industry?

- a. Identifying failures immediately and asking the child's peers for feedback
- b. Structuring the environment so the child can master tasks
- c. Completing homework for children who are having difficulty in completing assignments
- d. Decreasing expectations to eliminate potential failures

ANS: B

The task of the caring teacher or parent is to identify areas in which a child is competent and to build on successful experiences to foster feelings of mastery and success. Structuring the environment to enhance self-confidence and to provide the opportunity to solve increasingly more complex problems will promote a sense of mastery. Asking peers for feedback reinforces the child's feelings of failure. When teachers or parents complete children's homework for them, it sends the message that you do not trust them to do a good job. Providing assistance and suggestions and praising their best efforts are more appropriate. Decreasing expectations to eliminate failures will not promote a sense of achievement or mastery.

11. A nurse is assessing an older school-age child recently admitted to the hospital. Which assessment indicates the child is in an appropriate stage of cognitive development?

- a. Addition and subtraction ability
- b. Ability to classify
- c. Vocabulary
- d. Play activity

ANS: B

The ability to classify things from simple to complex and to identify differences and similarities are cognitive skills of the older school-age child; this demonstrates use of classification and logical thought processes. Subtraction and addition are appropriate cognitive activities for the young school-age child. Vocabulary is not as valid an assessment of cognitive ability as is the child's ability to classify. Play activity is not as valid an assessment of cognitive function as is the ability to classify.

12. Which is an appropriate disciplinary intervention for the school-age child?

- a. Time-out periods
- b. A consequence that is consistent with the inappropriate behavior
- c. Physical punishment
- d. Lengthy dialog about inappropriate behavior

ANS: B

A consequence that is related to the inappropriate behavior is the recommended discipline. Time-out periods are more appropriate for younger children. Physical intervention is an inappropriate form of discipline. It does not connect the discipline with the child's inappropriate behavior.

Lengthy discussions typically are not helpful.

**MULTIPLE RESPONSE**

1. Which demonstrates the school-age child developing logic in the stage of concrete operations? Select all that apply.

- a. Ability to recognize that 1 pound of feathers is equal to 1 pound of metal
- b. Ability to recognize that he can be a son, brother, or nephew at the same time
- c. Understands the principles of adding, subtracting, and reversibility
- d. Thinking characterized by egocentrism, animism, and centration

ANS: A, B, C

The school-age child understands that the properties of objects do not change when their order, form, or appearance does. Conservation occurs in the concrete operations stage. Comprehension of class inclusion occurs as the school-age child's logic increases. The child begins to understand that a person can be in more than one class at the same time. This is characteristic of concrete thinking and logical reasoning. The school-age child is able to understand principles of adding, subtracting, and the process of reversibility, which occurs in the stage of concrete operations. Egocentrism, animism, and centration occur in the intuitive thought stage, not the concrete operations stage of development.

2. Which strategies can a nurse teach to parents of a child experiencing uncomplicated school refusal? Select all that apply.

- a. The child should be allowed to stay home until the anxiety about going to school is resolved.
- b. Parents should be empathetic yet firm in their insistence that the child attends school.
- c. A modified school attendance may be necessary.
- d. Parents need to pick the child up at school whenever the child wants to come home.
- e. Parents need to communicate with the teachers about the situation.

ANS: B, C, E

In uncomplicated cases of school refusal, the parent needs to return the child to school as soon as possible. If symptoms are severe, a limited period of part-time or modified school attendance may be necessary. For example, part of the day may be spent in the counselor's or school nurse's office, with assignments obtained from the teacher. Parents should be empathetic yet firm and consistent in their insistence that the child attend school. Parents should not pick the child up at school once the child is there. The principal and teacher should be told about the situation so that they can cooperate with the treatment plan.

### SHORT ANSWER

1. A nurse is planning a class for school-age children on obesity. Which percentile does the BMI need to exceed for a child to be assessed as obese?

ANS:

95

95th

When intake of food exceeds expenditure, the excess is stored as fat. Obesity is an excessive accumulation of fat in the body and is assessed in children as a BMI that exceeds the 95th percentile for age.

## MULTIPLE CHOICE

1. A nurse is teaching an adolescent about Tanner stages. Which statement best describes Tanner staging?

- a. Predictable stages of puberty that are based on chronological age
- b. Staging of puberty based on the initiation of menarche and nocturnal emissions
- c. Predictable stages of puberty that are based on primary and secondary sexual characteristics
- d. Staging of puberty based on the initiation of primary sexual characteristics

ANS: C

Tanner sexual-maturing ratings are based on the development of stages of primary and secondary sexual characteristics. They are not based on chronological age. The age at which an adolescent enters puberty is variable. The puberty stage in girls begins with breast development. The puberty stage in boys begins with genital enlargement. Primary sexual characteristics are not the basis of Tanner staging.

2. Which behavior suggests appropriate psychosocial development in the adolescent?

- a. The adolescent seeks validation for socially acceptable behavior from older adults.
- b. The adolescent is self-absorbed and self-centered and has sudden mood swings.
- c. Adolescents move from peers and enjoy spending time with family members.
- d. Conformity with the peer group increases in late adolescence.

ANS: B

During adolescence, energy is focused within. Adolescents concentrate on themselves in an effort to determine who they are or who they will be. Adolescents are likely to be impulsive and impatient. The peer group validates acceptable behavior during adolescence. Adolescents move from family and enjoy spending time with peers. Adolescents also spend time alone; they need this time to think and concentrate on themselves. Conformity becomes less important in late adolescence.

3. The parents of a 14-year-old girl are concerned that their adolescent spends too much time looking in the mirror. Which statement is the most appropriate for the nurse to make?

- a. Your teenager needs clearer and stricter limits about her behavior.
- b. Your teenager needs more responsibility at home.
- c. During adolescence, this behavior is not unusual.
- d. The behavior is abnormal and needs further investigation.

ANS: C

Narcissistic behavior is normal during this period of development. The teenager is seeking a personal identity. Stricter limits are not an appropriate response for a behavior that is part of normal development. More responsibility at home is not an appropriate response for this situation.

4. Which factor contributes to early adolescents engaging in risk-taking behaviors?

- a. Peer pressure
- b. A desire to master their environment
- c. Engagement in the process of separation from their parents



- 
- d. A belief that they are invulnerable

ANS: D

During early to middle adolescence, children feel that they are exempt from the consequences of risk-taking behaviors: they believe negative consequences happen only to others. Impressing peers is more typically the factor influencing behavior of older school-age children. Mastering the environment is the task of young school-age children. Emancipation is a major issue for the older adolescent. The process is accomplished as the teenager gains an education or vocational training.

5. Which statement is the most appropriate advice to give parents of a 16-year-old teenager who is rebellious?

- 
- a. You need to be stricter so that your teenager feels more secure.
- 
- b. You need to allow your teenager to make realistic choices while using consistent and structured discipline.
- 
- c. Increasing your teens involvement with his peers will improve his self-esteem.
- 
- d. Allow your teenager to choose the type of discipline that is used in your home.

ANS: B

Allowing teenagers to choose between realistic options and offering consistent and structured discipline typically enhances cooperation and decreases rebelliousness. Setting stricter limits typically does not decrease rebelliousness or increase feelings of security. Increasing peer involvement does not typically increase self-esteem. Allowing teenagers to choose the method of discipline is not realistic and typically does not reduce rebelliousness.

6. Which statement by the nurse is most appropriate to a 15-year-old adolescent whose friend has mentioned suicide?

- 
- a. Tell your friend to come to the clinic immediately.
- 
- b. You need to gather details about your friends suicide plan.
- 
- c. Your friends threat needs to be taken seriously and immediate help for your friend is important.
- 
- d. If your friend mentions suicide a second time, you will want to get your friend some help.

ANS: C

Suicide is the third most common cause of death among American adolescents. A suicide threat from an adolescent serves as a dramatic message to others and should be taken seriously. Adolescents at risk should be targeted for supportive guidance and counseling before a crisis occurs. Instructing a 15-year-old adolescent to tell a friend to come to the clinic immediately provides the teen with limited information and does not address the concern. It is important to determine whether a person threatening suicide has a plan of action; however, the best information for the 15-year-old adolescent to have is that all threats of suicide should be taken seriously and immediate help is important. It is imperative that help is provided immediately for a teenager who is talking about suicide. Waiting until the teen discusses it a second time may be too late.

7. When planning care for adolescents, the nurse should:

- 
- a. teach parents first, and they, in turn, will teach the teenager.

- 
- |    |                                                                                                             |
|----|-------------------------------------------------------------------------------------------------------------|
| b. | provide information for their long-term health needs because teenagers respond best to long-range planning. |
|----|-------------------------------------------------------------------------------------------------------------|
- 
- |    |                                                                                                       |
|----|-------------------------------------------------------------------------------------------------------|
| c. | maintain the parents role by providing explanations for treatment and procedures to the parents only. |
|----|-------------------------------------------------------------------------------------------------------|
- 
- |    |                                                                                                               |
|----|---------------------------------------------------------------------------------------------------------------|
| d. | give information privately to adolescents about how they can manage the specific problems that they identify. |
|----|---------------------------------------------------------------------------------------------------------------|
- 

ANS: D

Problems that teenagers identify and are interested in are typically the problems that they are the most willing to address. Confidentiality is important to adolescents. Adolescents prefer to confer privately (without parents) with the nurse and healthcare provider. Teenagers are socially and cognitively at the developmental stage where the healthcare provider can teach them and can receive explanations about healthcare directly from the nurse. Teenagers are more interested in immediate healthcare needs than in long-term needs.

8. A 17-year-old adolescent tells the nurse that he is not having sex because it would make his parents very angry. This response indicates that the adolescent has a developmental lag in which area?

- 
- |    |                       |
|----|-----------------------|
| a. | Cognitive development |
|----|-----------------------|
- 
- |    |                   |
|----|-------------------|
| b. | Moral development |
|----|-------------------|
- 
- |    |                          |
|----|--------------------------|
| c. | Psychosocial development |
|----|--------------------------|
- 
- |    |                          |
|----|--------------------------|
| d. | Psychosexual development |
|----|--------------------------|
- 

ANS: B

The appropriate moral development for a 17-year-old adolescent would include evidence that the teenager has internalized a value system and does not depend on parents to determine right and wrong behaviors. Cognitive development is related to moral development, but it is not the pivotal point in determining right and wrong behaviors. Identity formation is the psychosocial development task. Energy is focused within the adolescent, who exhibits behavior that is self-absorbed and egocentric. Although a task during adolescence is the development of a sexual identity, the teenagers dependence on the parents sanctioning of right or wrong behavior is more appropriately related to moral development.

9. The best response a nurse can make to a 15-year-old girl who has verbalized a desire to have a baby is:

- 
- |    |                                               |
|----|-----------------------------------------------|
| a. | Have you talked with your parents about this? |
|----|-----------------------------------------------|
- 
- |    |                                       |
|----|---------------------------------------|
| b. | Do you have plans to continue school? |
|----|---------------------------------------|
- 
- |    |                                       |
|----|---------------------------------------|
| c. | Will you be able to support the baby? |
|----|---------------------------------------|
- 
- |    |                                                                  |
|----|------------------------------------------------------------------|
| d. | Can you tell me how your life will change if you have an infant? |
|----|------------------------------------------------------------------|
- 

ANS: D

Having the teenager describe how the infant will affect her life will allow the teen to think more realistically. Her description will allow the nurse to assess the teens perception and reality orientation. Asking the teenager if she has talked to her parents is not particularly helpful to the teen or the nurse and may terminate the communication. A direct question about continuing

school and how the teenager will support the child will not facilitate communication. Open-ended questions encourage communication.

10. In an interview with the nurse, a mother states that she is concerned that her 14-year-old teen is critical and finding fault with her. The nurse counsels the mother that:

- a. the family needs to change its value system to meet the teenagers changing needs.
- b. the parentteen relationship is important for the teenager and conflicts are to be expected.
- c. teenagers create psychological distance from the parent to separate from the parent.
- d. parents need to relinquish their relationship with their teenager to the teens peers.

ANS: C

The teenager uses critical and fault-finding behavior as a mechanism to separate from the parent and become independent. Changing the family's value system to meet the teenager's needs is not realistic and will result only in the teenager being critical of the new system. The parentteen relationship is not as important to the teenager as it was in earlier years. Friends and peers become more important. Parents should not relinquish their relationship with their teenager to the teen's peers. Maintaining a consistent parental relationship with the adolescent is important.

11. A nurse is teaching adolescent boys about pubertal changes. Which is the first sign of pubertal change seen with boys?

- a. Testicular enlargement
- b. Facial hair
- c. Scrotal enlargement
- d. Voice deepens

ANS: A

The first sign of pubertal changes in boys is testicular enlargement in response to testosterone secretion, which usually occurs in Tanner stage 2. Slight pubic hair is present and the smooth skin texture of the scrotum is somewhat altered. As testosterone secretion increases, the penis, testes, and scrotum enlarge. During Tanner stages 4 and 5, rising levels of testosterone cause the voice to deepen and facial hair appears at the corners of the upper lip and chin.

### **MULTIPLE RESPONSE**

1. Parents of a teenager ask the nurse what signs they should look for if their child is in a gang. The nurse should include which signs when answering? Select all that apply.

- a. Plans to try out for the debate team at school
- b. Skips classes to go to the mall
- c. Hangs out with friends they have had since childhood
- d. Has an unexplained source of money
- e. Fears the police

ANS: B, D, E

Signs of gang involvement include skipping classes, unexplained sources of money, and fear of the police. Associating with new friends while ignoring old friends is another sign, so hanging out with friends they have had since childhood is not a sign of gang involvement. A change in

attitude toward participating in activities is another sign of gang involvement. Plans to try out for the debate team at school are not a sign of gang involvement.

### OTHER

1. Place in order the signs of female sexual maturity beginning with the first sign and ending with the last. Use the following format for your answers: A, B, C, D

- a. Growth of pubic hair
- b. Menarche
- c. Appearance of breast buds
- d. Ovulation is established

ANS:

C, A, B, D

Sexual maturation in girls begins with the appearance of breast buds (thelarche), which is the first sign of ovarian function. Thelarche occurs at approximately age 8 to 11 years and is followed by the growth of pubic hair. Linear growth slows, and menarche begins approximately 1 year after the peak height velocity (PHV). Ovulation occurs with menarche but may or may not accompany the first 2 years of menarche so it is not established until later.

## Chapter 20: Alterations in Respiratory Function

### MULTIPLE CHOICE

1. Why are cool-mist vaporizers rather than steam vaporizers recommended in the home treatment of respiratory infections?

- a. They are safer.
- b. They are less expensive.
- c. Respiratory secretions are dried by steam vaporizers.
- d. A more comfortable environment is produced.

ANS: A

Cool-mist vaporizers are safer than steam vaporizers, and little evidence exists to show any advantages to steam. The cost of cool-mist and steam vaporizers is comparable. Steam loosens secretions, not dries them. Both cool-mist vaporizers and steam vaporizers may promote a more comfortable environment, but cool-mist vaporizers have decreased risk for burns and growth of organisms.

2. Decongestant nose drops are recommended for a 10-month-old infant with an upper respiratory tract infection. Instructions for nose drops should include which information?

- a. Do not use for more than 3 days.
- b. Keep drops to use again for nasal congestion.
- c. Administer drops after feedings and at bedtime.
- d. Give two drops every 5 minutes until nasal congestion subsides.

ANS: A

Vasoconstrictive nose drops such as Neo-Synephrine should not be used for more than 3 days to avoid rebound congestion. Drops should be discarded after one illness and not used for other children because they may become contaminated with bacteria. Drops administered before

feedings are more helpful. Two drops are administered to cause vasoconstriction in the anterior mucous membranes. An additional two drops are instilled 5 to 10 minutes later for the posterior mucous membranes. No further doses should be given.

3. The parent of an infant with nasopharyngitis should be instructed to notify the health professional if the infant shows signs or symptoms of which condition?

- a. Has a cough
- b. Becomes fussy
- c. Shows signs of an earache
- d. Has a fever higher than 37.5 C (99 F)

ANS: C

If an infant with nasopharyngitis shows signs of an earache, it may indicate respiratory complications and possibly secondary bacterial infection. The health professional should be contacted to evaluate the infant. Cough can be a sign of nasopharyngitis. Irritability is common in an infant with a viral illness. Fever is common in viral illnesses.

4. It is important that a child with acute streptococcal pharyngitis be treated with antibiotics to prevent which condition?

- a. Otitis media
- b. Diabetes insipidus (DI)
- c. Nephrotic syndrome
- d. Acute rheumatic fever

ANS: D

Group A hemolytic streptococcal infection is a brief illness with varying symptoms. It is essential that pharyngitis caused by this organism be treated with appropriate antibiotics to avoid the sequelae of acute rheumatic fever and acute glomerulonephritis. The cause of otitis media is either viral or other bacterial organisms. DI is a disorder of the posterior pituitary. Infections such as meningitis or encephalitis, not streptococcal pharyngitis, can cause DI.

Glomerulonephritis, not nephrotic syndrome, can result from acute streptococcal pharyngitis.

5. When caring for a child after a tonsillectomy, what intervention should the nurse do?

- a. Watch for continuous swallowing.
- b. Encourage gargling to reduce discomfort.
- c. Apply warm compresses to the throat.
- d. Position the child on the back for sleeping.

ANS: A

Continuous swallowing, especially while sleeping, is an early sign of bleeding. The child swallows the blood that is trickling from the operative site. Gargling is discouraged because it could irritate the operative site. Ice compresses are recommended to reduce inflammation. The child should be positioned on the side or abdomen to facilitate drainage of secretions.

6. What statement best represents infectious mononucleosis?

- a. Herpes simplex type 2 is the principal cause.
- b. A complete blood count shows a characteristic leukopenia.

- 
- c. A short course of ampicillin is used when pharyngitis is present.
  - d. Clinical signs and symptoms and blood tests are both needed to establish the diagnosis.
- 

ANS: D

The characteristics of the disease malaise, sore throat, lymphadenopathy, central nervous system manifestations, and skin lesions are similar to presenting signs and symptoms in other diseases. Hematologic analysis (heterophil antibody and monospot) can help confirm the diagnosis. However, not all young children develop the expected laboratory findings. Herpes-like Epstein-Barr virus is the principal cause. Usually, an increase in lymphocytes is observed. Penicillin, not ampicillin, is indicated. Ampicillin is linked with a discrete macular eruption in infectious mononucleosis.

7. Parents bring their 15-month-old infant to the emergency department at 3:00 AM because the toddler has a temperature of 39 C (102.2 F), is crying inconsolably, and is tugging at the ears. A diagnosis of otitis media (OM) is made. In addition to antibiotic therapy, the nurse practitioner should instruct the parents to use what medication?

- 
- a. Decongestants to ease stuffy nose
  - b. Antihistamines to help the child sleep
  - c. Aspirin for pain and fever management
  - d. Benzocaine ear drops for topical pain relief
- 

ANS: D

Analgesic ear drops can provide topical relief for the intense pain of OM. Decongestants and antihistamines are not recommended in the treatment of OM. Aspirin is contraindicated in young children because of the association with Reye syndrome.

8. An 18-month-old child is seen in the clinic with otitis media (OM). Oral amoxicillin is prescribed. What instructions should be given to the parent?

- 
- a. Administer all of the prescribed medication.
  - b. Continue medication until all symptoms subside.
  - c. Immediately stop giving medication if hearing loss develops.
  - d. Stop giving medication and come to the clinic if fever is still present in 24 hours.
- 

ANS: A

Antibiotics should be given for their full course to prevent recurrence of infection with resistant bacteria. Symptoms may subside before the full course is given. Hearing loss is a complication of OM; antibiotics should continue to be given. Medication may take 24 to 48 hours to make symptoms subside.

9. An infant's parents ask the nurse about preventing otitis media (OM). What information should be provided?

- 
- a. Avoid tobacco smoke.
  - b. Use nasal decongestants.
  - c. Avoid children with OM.
  - d. Bottle- or breastfeed in a supine position.
- 

ANS: A

Eliminating tobacco smoke from the child's environment is essential for preventing OM and other common childhood illnesses. Nasal decongestants are not useful in preventing OM. Children with uncomplicated OM are not contagious unless they show other symptoms of upper respiratory tract infection. Children should be fed in a semivertical position to prevent OM.

10. Chronic otitis media with effusion (OME) differs from acute otitis media (AOM) because it is usually characterized by which signs or symptoms?

- a. Severe pain in the ear
- b. Anorexia and vomiting
- c. A feeling of fullness in the ear
- d. Fever as high as 40 C (104 F)

ANS: C

OME is characterized by a feeling of fullness in the ear or other nonspecific complaints. OME does not cause severe pain. This may be a sign of AOM. Vomiting, anorexia, and fever are associated with AOM.

11. A 4-year-old girl is brought to the emergency department. She has a froglike croaking sound on inspiration, is agitated, and is drooling. She insists on sitting upright. The nurse should intervene in which manner?

- a. Make her lie down and rest quietly.
- b. Examine her oral pharynx and report to the physician.
- c. Auscultate her lungs and prepare for placement in a mist tent.
- d. Notify the physician immediately and be prepared to assist with a tracheostomy or intubation.

ANS: D

This child is exhibiting signs of respiratory distress and possible epiglottitis. Epiglottitis is always a medical emergency requiring antibiotics and airway support for treatment. Sitting up is the position that facilitates breathing in respiratory disease. The oral pharynx should not be visualized. If the epiglottis is inflamed, there is the potential for complete obstruction if it is irritated further. Although lung auscultation provides useful assessment information, a mist tent would not be beneficial for this child. Immediate medical evaluation and intervention are indicated.

12. The nurse is assessing a child with croup in the emergency department. The child has a sore throat and is drooling. Examining the child's throat using a tongue depressor might precipitate what condition?

- a. Sore throat
- b. Inspiratory stridor
- c. Complete obstruction
- d. Respiratory tract infection

ANS: C

If a child has acute epiglottitis, examination of the throat may cause complete obstruction and should be performed only when immediate intubation can take place. Sore throat and pain on swallowing are early signs of epiglottitis. Stridor is aggravated when a child with epiglottitis is supine. Epiglottitis is caused by *Haemophilus influenzae* in the respiratory tract.

13. The mother of a 20-month-old boy tells the nurse that he has a barking cough at night. His temperature is 37 C (98.6 F). The nurse suspects mild croup and should recommend which intervention?

- a. Admit to the hospital and observe for impending epiglottitis.
- b. Provide fluids that the child likes and use comfort measures.
- c. Control fever with acetaminophen and call if cough gets worse tonight.
- d. Try over-the-counter cough medicine and come to the clinic tomorrow if no improvement.

ANS: B

In mild croup, therapeutic interventions include adequate hydration (as long as the child can easily drink) and comfort measures to minimize distress. The child is not exhibiting signs of epiglottitis. A temperature of 37 C is within normal limits. Although a return to the clinic may be indicated, the mother is instructed to return if the child develops noisy respirations or drooling.

14. The nurse encourages the mother of a toddler with acute laryngotracheobronchitis to stay at the bedside as much as possible. What is the primary rationale for this action?

- a. Mothers of hospitalized toddlers often experience guilt.
- b. The mothers presence will reduce anxiety and ease the childs respiratory efforts.
- c. Separation from the mother is a major developmental threat at this age.
- d. The mother can provide constant observations of the childs respiratory efforts.

ANS: B

The familys presence will decrease the childs distress. It is true that mothers of hospitalized toddlers often experience guilt and that separation from mother is a major developmental threat for toddlers, but the main reason to keep parents at the childs bedside is to ease anxiety and therefore respiratory effort.

15. An infant with bronchiolitis is hospitalized. The causative organism is respiratory syncytial virus (RSV). The nurse knows that a child infected with this virus requires what type of isolation?

- a. Reverse isolation
- b. Airborne isolation
- c. Contact Precautions
- d. Standard Precautions

ANS: C

RSV is transmitted through droplets. In addition to Standard Precautions and hand washing, Contact Precautions are required. Caregivers must use gloves and gowns when entering the room. Care is taken not to touch their own eyes or mucous membranes with a contaminated gloved hand. Children are placed in a private room or in a room with other children with RSV infections. Reverse isolation focuses on keeping bacteria away from the infant. With RSV, other children need to be protected from exposure to the virus. The virus is not airborne.

16. An infant has been diagnosed with staphylococcal pneumonia. Nursing care of the child with pneumonia includes which intervention?

- a. Administration of antibiotics
- b. Frequent complete assessment of the infant



- c. Round-the-clock administration of antitussive agents
- d. Strict monitoring of intake and output to avoid congestive heart failure

ANS: A

Antibiotics are indicated for bacterial pneumonia. Often the child has decreased pulmonary reserve, and clustering of care is essential. The child's respiratory rate and status and general disposition are monitored closely, but frequent complete physical assessments are not indicated. Antitussive agents are used sparingly. It is desirable for the child to cough up some of the secretions. Fluids are essential to keep secretions as liquefied as possible.

17. What consideration is most important in managing tuberculosis (TB) in children?

- a. Skin testing
- b. Chemotherapy
- c. Adequate rest
- d. Adequate hydration

ANS: B

Drug therapy for TB includes isoniazid, rifampin, and pyrazinamide daily for 2 months and isoniazid and rifampin given two or three times a week by direct observation therapy for the remaining 4 months. Chemotherapy is the most important intervention for TB.

18. A toddler has a unilateral foul-smelling nasal discharge and frequent sneezing. The nurse should suspect what condition?

- a. Allergies
- b. Acute pharyngitis
- c. Foreign body in the nose
- d. Acute nasopharyngitis

ANS: C

The irritation of a foreign body in the nose produces local mucosal swelling with foul-smelling nasal discharge, local obstruction with sneezing, and mild discomfort. Allergies would produce clear bilateral nasal discharge. Nasal discharge is usually not associated with pharyngitis. Acute nasopharyngitis would have bilateral mucous discharge.

19. The nurse is caring for a child with acute respiratory distress syndrome (ARDS) associated with sepsis. What nursing action should be included in the care of the child?

- a. Force fluids.
- b. Monitor pulse oximetry.
- c. Institute seizure precautions.
- d. Encourage a high-protein diet.

ANS: B

Careful monitoring of oxygenation and cardiopulmonary status is an important evaluation tool in the care of the child with ARDS. Maintenance of vascular volume and hydration is important and should be done parenterally. Seizures are not a side effect of ARDS. Adequate nutrition is necessary, but a high-protein diet is not helpful.

20. The nurse is caring for a child with carbon monoxide (CO) poisoning associated with smoke inhalation. What intervention is essential in this child's care?

- a. Monitor pulse oximetry.
- b. Monitor arterial blood gases.
- c. Administer oxygen if respiratory distress develops.
- d. Administer oxygen if child's lips become bright, cherry-red in color.

ANS: B

Arterial blood gases are the best way to monitor CO poisoning. Pulse oximetry is contraindicated in the case of CO poisoning because the PaO<sub>2</sub> may be normal. One hundred percent oxygen should be given as quickly as possible, not only if respiratory distress or other symptoms develop.

21. What diagnostic test for allergies involves the injection of specific allergens?

- a. Phadiatop
- b. Skin testing
- c. Radioallergosorbent tests (RAST)
- d. Blood examination for total immunoglobulin E (IgE)

ANS: B

Skin testing is the most commonly used diagnostic test for allergy. A specific allergen is injected under the skin, and after a suitable time, the size of the resultant wheal is measured to determine the patient's sensitivity. Phadiatop is a screening test that uses a blood sample to assess for IgE antibodies for a group of specific allergens. RAST determines the level of specific IgE antibodies. Blood examination for total IgE would not distinguish among allergens.

22. What statement is the most descriptive of asthma?

- a. It is inherited.
- b. There is heightened airway reactivity.
- c. There is decreased resistance in the airway.
- d. The single cause of asthma is an allergic hypersensitivity.

ANS: B

In asthma, spasm of the smooth muscle of the bronchi and bronchioles causes constriction, producing impaired respiratory function. Atopy, or development of an immunoglobulin E (IgE)-mediated response, is inherited but is not the only cause of asthma. Asthma is characterized by increased resistance in the airway. Asthma has multiple causes, including allergens, irritants, exercise, cold air, infections, medications, medical conditions, and endocrine factors.

23. What condition is the leading cause of chronic illness in children?

- a. Asthma
- b. Pertussis
- c. Tuberculosis
- d. Cystic fibrosis

ANS: A

Asthma is the most common chronic disease of childhood, the primary cause of school absences, and the third leading cause of hospitalization in children younger than the age of 15 years. Pertussis is not a chronic illness. Tuberculosis is not a significant factor in childhood chronic illness. Cystic fibrosis is the most common lethal genetic illness among white children.

24. A child has a chronic cough and diffuse wheezing during the expiratory phase of respiration. This suggests what condition?

- a. Asthma
- b. Pneumonia
- c. Bronchiolitis
- d. Foreign body in trachea

ANS: A

Asthma may have these chronic signs and symptoms. Pneumonia appears with an acute onset, fever, and general malaise. Bronchiolitis is an acute condition caused by respiratory syncytial virus. Foreign body in the trachea occurs with acute respiratory distress or failure and maybe stridor.

25. A child with asthma is having pulmonary function tests. What rationale explains the purpose of the peak expiratory flow rate?

- a. To assess severity of asthma
- b. To determine cause of asthma
- c. To identify triggers of asthma
- d. To confirm diagnosis of asthma

ANS: A

Peak expiratory flow rate monitoring is used to monitor the child's current pulmonary function. It can be used to manage exacerbations and for daily long-term management. The cause of asthma is known. Asthma is caused by a complex interaction among inflammatory cells, mediators, and the cells and tissues present in the airways. The triggers of asthma are determined through history taking and immunologic and other testing. The diagnosis of asthma is made through clinical manifestations, history, physical examination, and laboratory testing.

26. Children who are taking long-term inhaled steroids should be assessed frequently for what potential complication?

- a. Cough
- b. Osteoporosis
- c. Slowed growth
- d. Cushing syndrome

ANS: C

The growth of children on long-term inhaled steroids should be assessed frequently to evaluate systemic effects of these drugs. Cough is prevented by inhaled steroids. No evidence exists that inhaled steroids cause osteoporosis. Cushing syndrome is caused by long-term systemic steroids.

27. One of the goals for children with asthma is to maintain the child's normal functioning. What principle of treatment helps to accomplish this goal?

- a. Limit participation in sports.
- b. Reduce underlying inflammation.
- c. Minimize use of pharmacologic agents.
- d. Have yearly evaluations by a health care provider.

ANS: B

Children with asthma are often excluded from exercise. This practice interferes with peer interaction and physical health. Most children with asthma can participate provided their asthma is under control. Inflammation is the underlying cause of the symptoms of asthma. By decreasing inflammation and reducing the symptomatic airway narrowing, health care providers can minimize exacerbations. Pharmacologic agents are used to prevent and control asthma symptoms, reduce the frequency and severity of asthma exacerbations, and reverse airflow obstruction. It is recommended that children with asthma be evaluated every 6 months.

28. What drug is usually given first in the emergency treatment of an acute, severe asthma episode in a young child?

- a. Ephedrine
- b. Theophylline
- c. Aminophylline
- d. Short-acting b2-agonists

ANS: D

Short-acting b2-agonists are the first treatment in an acute asthma exacerbation. Ephedrine and aminophylline are not helpful in acute asthma exacerbations. Theophylline is unnecessary for treating asthma exacerbations.

29. Cystic fibrosis (CF) may affect single or multiple systems of the body. What is the primary factor responsible for possible multiple clinical manifestations in CF?

- a. Hyperactivity of sweat glands
- b. Hypoactivity of autonomic nervous system
- c. Atrophic changes in mucosal wall of intestines
- d. Mechanical obstruction caused by increased viscosity of mucous gland secretions

ANS: D

The mucous glands produce a thick mucoprotein that accumulates and results in dilation. Small passages in organs such as the pancreas and bronchioles become obstructed as secretions form concretions in the glands and ducts. The exocrine glands, not sweat glands, are dysfunctional. Although abnormalities in the autonomic nervous system are present, it is not hypoactive. Intestinal involvement in CF results from the thick intestinal secretions, which can lead to blockage and rectal prolapse.

30. What is the earliest recognizable clinical manifestation(s) of cystic fibrosis (CF)?

- a. Meconium ileus
- b. History of poor intestinal absorption
- c. Foul-smelling, frothy, greasy stools
- d. Recurrent pneumonia and lung infections

ANS: A

The earliest clinical manifestation of CF is a meconium ileus, which is found in about 10% of children with CF. Clinical manifestations include abdominal distention, vomiting, failure to pass stools, and rapid development of dehydration. History of malabsorption is a later sign that manifests as failure to thrive. Foul-smelling stools and recurrent respiratory infections are later manifestations of CF.

31. What tests aid in the diagnosis of cystic fibrosis (CF)?

- a. Sweat test, stool for fat, chest radiography
- b. Sweat test, bronchoscopy, duodenal fluid analysis
- c. Sweat test, stool for trypsin, biopsy of intestinal mucosa
- d. Stool for fat, gastric contents for hydrochloride, radiography

ANS: A

A sweat test result of greater than 60 mEq/L is diagnostic of CF, a high level of fecal fat is a gastrointestinal manifestation of CF, and a chest radiograph showing patchy atelectasis and obstructive emphysema indicates CF. Bronchoscopy, duodenal fluid analysis, stool tests for trypsin, and intestinal biopsy are not helpful in diagnosing CF. Gastric contents normally contain hydrochloride; it is not diagnostic.

32. A child with cystic fibrosis (CF) receives aerosolized bronchodilator medication. When should this medication be administered?

- a. After chest physiotherapy (CPT)
- b. Before chest physiotherapy (CPT)
- c. After receiving 100% oxygen
- d. Before receiving 100% oxygen

ANS: B

Bronchodilators should be given before CPT to open bronchi and make expectoration easier. These medications are not helpful when used after CPT. Oxygen is administered only in acute episodes, with caution, because of chronic carbon dioxide retention.

33. A child with cystic fibrosis is receiving recombinant human deoxyribonuclease (DNase). What statement about DNase is true?

- a. Given subcutaneously
- b. May cause voice alterations
- c. May cause mucus to thicken
- d. Not indicated for children younger than age 12 years

ANS: B

One of the only adverse effects of DNase is voice alterations and laryngitis. DNase is given in an aerosolized form, decreases the viscosity of mucus, and is safe for children younger than 12 years.

34. The parent of a child with cystic fibrosis (CF) calls the clinic nurse to report that the child has developed tachypnea, tachycardia, dyspnea, pallor, and cyanosis. The nurse should tell the parent to bring the child to the clinic because these signs and symptoms are suggestive of what condition?

- a. Pneumothorax
- b. Bronchodilation
- c. Carbon dioxide retention
- d. Increased viscosity of sputum

ANS: A

Usually the signs of pneumothorax are nonspecific. Tachypnea, tachycardia, dyspnea, pallor, and cyanosis are significant signs and symptoms and are indicative of respiratory distress caused by pneumothorax. If the bronchial tubes were dilated, the child would have decreased work of breathing and would most likely be asymptomatic. Carbon dioxide retention is a result of the chronic alveolar hypoventilation in CF. Hypoxia replaces carbon dioxide as the drive for respiration progresses. Increased viscosity would result in more difficulty clearing secretions.

35. Pancreatic enzymes are administered to the child with cystic fibrosis. What nursing consideration should be included in the plan of care?

- a. Give pancreatic enzymes between meals if at all possible.
- b. Do not administer pancreatic enzymes if the child is receiving antibiotics.
- c. Decrease the dose of pancreatic enzymes if the child is having frequent, bulky stools.
- d. Pancreatic enzymes can be swallowed whole or sprinkled on a small amount of food taken at the beginning of a meal.

ANS: D

Enzymes may be administered in a small amount of cereal or fruit at the beginning of a meal or swallowed whole. Enzymes should be given just before meals and snacks. Pancreatic enzymes are not a contraindication for antibiotics. The dose of enzymes should be increased if child is having frequent, bulky stools.

36. The nurse is giving discharge instructions to the parents of a 5-year-old child who had a tonsillectomy 4 hours ago. What statement by the parent indicates a correct understanding of the teaching?

- a. I can use an ice collar on my child for pain control along with analgesics.
- b. My child should clear the throat frequently to clear the secretions.
- c. I should allow my child to be as active as tolerated.
- d. My child should gargle and brush teeth at least three times per day.

ANS: A

Pain control after a tonsillectomy can be achieved with application of an ice collar and administration of analgesics. The child should avoid clearing the throat or coughing and does not need to gargle and brush teeth a certain number of times per day and should avoid vigorous gargling and toothbrushing. Also, the child's activity should be limited to decrease the potential for bleeding, at least for the first few days.

37. A child is admitted with acute laryngotracheobronchitis (LTB). The child will most likely be treated with which?

- a. Racemic epinephrine and corticosteroids
- b. Nebulizer treatments and oxygen

- c. Antibiotics and albuterol
- d. Chest physiotherapy and humidity

ANS: A

Nebulized epinephrine (racemic epinephrine) is now used in children with LTB that is not alleviated with cool mist. The beta-adrenergic effects cause mucosal vasoconstriction and subsequent decreased subglottic edema. The use of corticosteroids is beneficial because the anti-inflammatory effects decrease subglottic edema. Nebulizer treatments are not effective even though oxygen may be required. Antibiotics are not used because it is a viral infection. Chest physiotherapy would not be instituted.

38. A 6-year-old child has had a tonsillectomy. The child is spitting up small amounts of dark brown blood in the immediate postoperative period. The nurse should take what action?

- a. Notify the health care provider.
- b. Continue to assess for bleeding.
- c. Give the child a red flavored ice pop.
- d. Position the child in a Trendelenburg position.

ANS: B

Some secretions, particularly dried blood from surgery, are common after a tonsillectomy. Inspect all secretions and vomitus for evidence of fresh bleeding (some blood-tinged mucus is expected). Dark brown (old) blood is usually present in the emesis, as well as in the nose and between the teeth. Small amounts of dark brown blood should be further monitored. A red-flavored ice pop should not be given and the Trendelenburg position is not recommended.

39. A 3-year-old child is experiencing pain after a tonsillectomy. The child has not taken in any fluids and does not want to drink anything, saying, My tummy hurts. The following health care prescriptions are available: acetaminophen (Tylenol) PO (orally) or PR (rectally) PRN, ice chips, clear liquids. What should the nurse implement to relieve the child's pain?

- a. Ice chips
- b. Tylenol PO
- c. Tylenol PR
- d. Popsicle

ANS: C

The throat is very sore after a tonsillectomy. Most children experience moderate pain after a tonsillectomy and need pain medication at regular intervals for at least the first 24 hours. Analgesics may need to be given rectally or intravenously to avoid the oral route.

40. A 1-year-old child has acute otitis media (AOM) and is being treated with oral antibiotics. What should the nurse include in the discharge teaching to the infant's parents?

- a. A follow-up visit should be done after all medicine has been given.
- b. After an episode of acute otitis media, hearing loss usually occurs.
- c. Tylenol should not be given because it may mask symptoms.
- d. The infant will probably need a myringotomy procedure and tubes.

ANS: A

Children with AOM should be seen after antibiotic therapy is complete to evaluate the effectiveness of the treatment and to identify potential complications, such as effusion or hearing impairment. Hearing loss does not usually occur with acute otitis media. Tylenol should be given for pain, and the infant will not necessarily need a myringotomy procedure.

41. What do the initial signs of respiratory syncytial virus (RSV) infection in an infant include?

- a. Rhinorrhea, wheezing, and fever
- b. Tachypnea, cyanosis, and apnea
- c. Retractions, fever, and listlessness
- d. Poor breath sounds and air hunger

ANS: A

Symptoms such as rhinorrhea and a low-grade fever often appear first. OM and conjunctivitis may also be present. In time, a cough may develop. Wheezing is an initial sign as well.

Progression of illness brings on the symptoms of tachypnea, retractions, poor breath sounds, cyanosis, air hunger, and apnea.

42. The nurse is caring for a 1-month-old infant with respiratory syncytial virus (RSV) who is receiving 23% oxygen via a plastic hood. The child's SaO<sub>2</sub> saturation is 88%, respiratory rate is 45 breaths/min, and pulse is 140 beats/min. Based on these assessments, what action should the nurse take?

- a. Withhold feedings.
- b. Notify the health care provider.
- c. Put the infant in an infant seat.
- d. Keep the infant in the plastic hood.

ANS: B

The American Academy of Pediatrics practice parameter (2006) recommends the use of supplemental oxygen if the infant fails to maintain a consistent oxygen saturation of at least 90%. The health care provider should be notified of the saturation reading of 88%. Withholding the feedings or placing the infant in an infant seat would not increase the saturation reading. The infant should be kept in the hood, but because the saturation reading is 88%, the health care provider should be notified to obtain orders to increase the oxygen concentration.

43. A 5-year-old child is admitted with bacterial pneumonia. What signs and symptoms should the nurse expect to assess with this disease process?

- a. Fever, cough, and chest pain
- b. Stridor, wheezing, and ear infection
- c. Nasal discharge, headache, and cough
- d. Pharyngitis, intermittent fever, and eye infection

ANS: A

Children with bacterial pneumonia usually appear ill. Symptoms include fever, malaise, rapid and shallow respirations, cough, and chest pain. Ear infection, nasal discharge, and eye infection are not symptoms of bacterial pneumonia.

44. An infant with a congenital heart defect is to receive a dose of palivizumab (Synagis). What is the purpose of this?



- a. Prevent RSV infection.
- b. Prevent secondary bacterial infection.
- c. Decrease toxicity of antiviral agents.
- d. Make isolation of infant with RSV unnecessary.

ANS: A

The only product available in the United States for prevention of RSV is palivizumab, a humanized mouse monoclonal antibody, which is given once every 30 days (15 mg/kg) between November and March. It is given to high-risk infants, which includes an infant with a congenital heart defect.

45. A 3-year-old is brought to the emergency department with symptoms of stridor, fever, restlessness, and drooling. No coughing is observed. Based on these findings, the nurse should be prepared to assist with what action?

- a. Throat culture
- b. Nasal pharynx washing
- c. Administration of corticosteroids
- d. Emergency intubation

ANS: D

Three clinical observations that are predictive of epiglottitis are absence of spontaneous cough, presence of drooling, and agitation. Nasotracheal intubation or tracheostomy is usually considered for a child with epiglottitis with severe respiratory distress. The throat should not be inspected because airway obstruction can occur, and steroids would not be done first when the child is in severe respiratory distress.

46. A 3-year-old child woke up in the middle of the night with a croupy cough and inspiratory stridor. The parents bring the child to the emergency department, but by the time they arrive, the cough is gone, and the stridor has resolved. What can the nurse teach the parents with regard to this type of croup?

- a. A bath in tepid water can help resolve this type of croup.
- b. Tylenol can help to relieve the cough and stridor.
- c. A cool mist vaporizer at the bedside can help prevent this type of croup.
- d. Antibiotics need to be given to reduce the inflammation.

ANS: C

Acute spasmodic laryngitis (spasmodic croup, midnight croup, or twilight croup) is distinct from laryngitis and LTB and characterized by paroxysmal attacks of laryngeal obstruction that occur chiefly at night. The child goes to bed well or with some mild respiratory symptoms but awakens suddenly with characteristic barking; a metallic cough; hoarseness; noisy inspirations; and restlessness. However, there is no fever, and the episode subsides in a few hours. Children with spasmodic croup are managed at home. Cool mist is recommended for the child's room. A tepid water bath will not help, but steam provided by hot water may relieve the laryngeal spasm. The child will not need Tylenol, and antibiotics are not given for this type of croup.

47. A 3-month-old infant is admitted to the pediatric unit for treatment of bronchiolitis. The infant's vital signs are T, 101.6 F; P, 106 beats/min apical; and R, 70 breaths/min. The infant is

irritable and fussy and coughs frequently. IV fluids are given via a peripheral venipuncture. Fluids by mouth were initially contraindicated for what reason?

- a. Tachypnea
- b. Paroxysmal cough
- c. Irritability
- d. Fever

ANS: A

Fluids by mouth may be contraindicated because of tachypnea, weakness, and fatigue. Therefore, IV fluids are preferred until the acute stage of bronchiolitis has passed. Infants with bronchiolitis may have paroxysmal coughing, but fluids by mouth would not be contraindicated. Irritability or fever would not be reasons for fluids by mouth to be contraindicated.

48. A child is in the hospital for cystic fibrosis. What health care providers prescription should the nurse clarify before implementing?

- a. Dornase alfa (Pulmozyme) nebulizer treatment bid
- b. Pancreatic enzymes every 6 hours
- c. Vitamin A, D, E, and K supplements daily
- d. Proventil (albuterol) nebulizer treatments tid

ANS: B

The principal treatment for pancreatic insufficiency that occurs in cystic fibrosis is replacement of pancreatic enzymes, which are administered with meals and snacks to ensure that digestive enzymes are mixed with food in the duodenum. The enzymes should not be given every 6 hours, so this should be clarified before implementing this prescription. Dornase alfa (Pulmozyme) is given by nebulizer to decrease the viscosity of secretions, vitamin supplements are given daily, and Proventil nebulizer treatments are given to open the bronchi for easier expectoration.

49. A 6-year-old child is in the hospital for status asthmaticus. Nursing care during this acute period includes which prescribed interventions?

- a. Prednisolone (Pediapred) PO every day, IV fluids, cromolyn (Intal) inhaler bid
- b. Salmeterol (Serevent) PO bid, vital signs every 4 hours, spot check pulse oximetry
- c. Triamcinolone (Azmecort) inhaler bid, continuous pulse oximetry, vital signs once a shift
- d. Methylprednisolone (Solumedrol) IV every 12 hours, continuous pulse oximetry, albuterol nebulizer treatments every 4 hours and prn

ANS: D

The child in status asthmaticus should be placed on continuous cardiorespiratory (including blood pressure) and pulse oximetry monitoring. A systemic corticosteroid (oral, IV, or IM) may also be given to decrease the effects of inflammation. Inhaled aerosolized short-acting b2-agonists are recommended for all patients. Therefore, Solumedrol per IV, continuous pulse oximetry, and albuterol nebulizer treatments are the expected prescribed treatments. Oral medications would not be used during the acute stage of status asthmaticus. Vital signs once a shift and spot pulse oximetry checks would not be often enough.

50. In providing nourishment for a child with cystic fibrosis (CF), what factors should the nurse keep in mind?

- a. Fats and proteins must be greatly curtailed.
- b. Most fruits and vegetables are not well tolerated.
- c. Diet should be high in calories, proteins, and unrestricted fats.
- d. Diet should be low fat but high in calories and proteins.

ANS: C

Children with CF require a well-balanced, high-protein, high-caloric diet, with unrestricted fat (because of the impaired intestinal absorption).

51. A quantitative sweat chloride test has been done on an 8-month-old child. What value should be indicative of cystic fibrosis (CF)?

- a. Less than 18 mEq/L
- b. 18 to 40 mEq/L
- c. 40 to 60 mEq/L
- d. Greater than 60 mEq/L

ANS: D

Normally sweat chloride content is less than 40 mEq/L, with a mean of 18 mEq/L. A chloride concentration greater than 60 mEq/L is diagnostic of CF; in infants younger than 3 months, a sweat chloride concentration greater than 40 mEq/L is highly suggestive of CF.

52. A preschool child has asthma, and a goal is to extend expiratory time and increase expiratory effectiveness. What action should the nurse implement to meet this goal?

- a. Encourage increased fluid intake.
- b. Recommend increased use of a budesonide (Pulmicort) inhaler.
- c. Administer an antitussive to suppress coughing.
- d. Encourage the child to blow a pinwheel every 6 hours while awake.

ANS: D

Play techniques that can be used for younger children to extend their expiratory time and increase expiratory pressure include blowing cotton balls or a ping-pong ball on a table, blowing a pinwheel, blowing bubbles, or preventing a tissue from falling by blowing it against the wall. Increased fluids, increased use of a Pulmicort inhaler, or suppressing a cough will not increase expiratory effectiveness.

53. A school-age child has asthma. The nurse should teach the child that if a peak expiratory flow rate is in the yellow zone, this means that the asthma control is what?

- a. 80% of a personal best, and the routine treatment plan can be followed.
- b. 50% to 79% of a personal best and needs an increase in the usual therapy.
- c. 50 % of a personal best and needs immediate emergency bronchodilators.
- d. Less than 50% of a personal best and needs immediate hospitalization.

ANS: B

The interpretation of a peak expiratory flow rate that is yellow (50%-79% of personal best) signals caution. Asthma is not well controlled. An acute exacerbation may be present. Maintenance therapy may need to be increased. Call the practitioner if the child stays in this zone.

54. A family requires home care teaching with regard to preventative measures to use at home to avoid an asthmatic episode. What strategy should the nurse teach?

- a. Use a humidifier in the child's room.
- b. Launder bedding daily in cold water.
- c. Replace wood flooring with carpet.
- d. Use an indoor air purifier with HEPA filter.

ANS: D

Allergen control includes use of an indoor air purifier with HEPA filter. Humidity should be kept low, bedding laundered in hot water once a week, and carpet replaced with wood floors.

55. A school-age child with cystic fibrosis takes four enzyme capsules with meals. The child is having four or five bowel movements per day. The nurse's action in regard to the pancreatic enzymes is based on the knowledge that the dosage is what?

- a. Adequate
- b. Adequate but should be taken between meals
- c. Needs to be increased to increase the number of bowel movements per day
- d. Needs to be increased to decrease the number of bowel movements per day

ANS: D

The amount of enzyme is adjusted to achieve normal growth and a decrease in the number of stools to one or two per day.

56. A term infant is delivered, and before delivery, the medical team was notified that a congenital diaphragmatic hernia (CDH) was diagnosed on ultrasonography. What should be done immediately at birth if respiratory distress is noted?

- a. Give oxygen.
- b. Suction the infant.
- c. Intubate the infant.
- d. Ventilate the infant with a bag and mask.

ANS: C

Many infants with a CDH require immediate respiratory assistance, which includes endotracheal intubation and GI decompression with a double-lumen catheter to prevent further respiratory compromise. At birth, bag and mask ventilation is contraindicated to prevent air from entering the stomach and especially the intestines, further compromising pulmonary function. Oxygen and suctioning may be used for mild respiratory distress.

57. A child has a streptococcal throat infection and is being treated with antibiotics. What should the nurse teach the parents to prevent infection of others?

- a. The child can return to school immediately.
- b. The organism cannot be transmitted through contact.
- c. The child can return to school after taking antibiotics for 24 hours.
- d. The organism can only be transmitted if someone uses a personal item of the sick child.

ANS: C

Children with streptococcal infection are noninfectious to others 24 hours after initiation of antibiotic therapy. It is generally recommended that children not return to school or daycare until they have been taking antibiotics for a full 24-hour period. The organism is spread by close contact with affected persons direct projection of large droplets or physical transfer of respiratory secretions containing the organism.

58. What medication is contraindicated in children post tonsillectomy and adenoidectomy?

- a. Codeine
- b. Ondansetron (Zofran)
- b. Amoxil (amoxicillin)
- c. Acetaminophen (Tylenol)

ANS: A

Codeine is contraindicated in pediatric patients after tonsillectomy and adenoidectomy. In 2012, the Food and Drug Administration issued a Drug Safety Communication that codeine use in certain children after tonsillectomy or adenoidectomy may lead to rare but life-threatening adverse events or death. Zofran, amoxicillin, and Tylenol are not contraindicated after tonsillectomy and adenoidectomy.

#### **MULTIPLE RESPONSE**

1. The nurse is preparing a staff education program about pediatric asthma. What concepts should the nurse include when discussing the asthma severity classification system? (*Select all that apply.*)

- a. Children with mild persistent asthma have nighttime signs or symptoms less than two times a month.
- b. Children with moderate persistent asthma use a short-acting b-agonist more than two times per week.
- c. Children with severe persistent asthma have a peak expiratory flow (PEF) of 60% to 80% of predicted value.
- d. Children with mild persistent asthma have signs or symptoms more than two times per week.
- e. Children with moderate persistent asthma have some limitations with normal activity.
- f. Children with severe persistent asthma have frequent nighttime signs or symptoms.

ANS: D, E, F

Children with mild persistent asthma have signs or symptoms more than two times per week and nighttime signs or symptoms three or four times per month. Children with moderate persistent asthma have some limitations with normal activity and need to use a short-acting b-agonist for sign or symptom control daily. Children with severe persistent asthma have frequent nighttime signs or symptoms and have a PEF of less than 60%.

2. The nurse is caring for a newborn with suspected congenital diaphragmatic hernia. What of the following findings would the nurse expect to observe? (*Select all that apply.*)

- a. Loud, harsh murmur
- b. Scaphoid abdomen
- c. Poor peripheral pulses
- d. Mediastinal shift

- e. Inguinal swelling
- f. Moderate respiratory distress

ANS: B, D, F

Clinical manifestations of a congenital diaphragmatic hernia include a scaphoid abdomen, a mediastinal shift, and moderate to severe respiratory distress. The infant would not have a harsh, loud murmur or poor peripheral pulses. Inguinal swelling is indicative of an inguinal hernia.

3. What interventions can the nurse teach parents to do to ease respiratory efforts for a child with a mild respiratory tract infection? (*Select all that apply.*)

- a. Cool mist
- b. Warm mist
- c. Steam vaporizer
- d. Keep child in a flat, quiet position
- e. Run a shower of hot water to produce steam

ANS: A, B, C, E

Warm or cool mist is a common therapeutic measure for symptomatic relief of respiratory discomfort. The moisture soothes inflamed membranes and is beneficial when there is hoarseness or laryngeal involvement. A time-honored method of producing steam is the shower. Running a shower of hot water into the empty bathtub or open shower stall with the bathroom door closed produces a quick source of steam. Keeping a child in this environment for 10 to 15 minutes may help ease respiratory efforts. A small child can sit on the lap of a parent or other adult. The child should be quiet but upright, not flat. The use of steam vaporizers in the home is often discouraged because of the hazards related to their use and limited evidence to support their efficacy.

4. A tonsillectomy or adenoidectomy is contraindicated in what conditions? (*Select all that apply.*)

- a. Cleft palate
- b. Seizure disorders
- c. Blood dyscrasias
- d. Sickle cell disease
- e. Acute infection at the time of surgery

ANS: A, C, E

Contraindications to either tonsillectomy or adenoidectomy are (1) cleft palate because both tonsils help minimize escape of air during speech, (2) acute infections at the time of surgery because the locally inflamed tissues increase the risk of bleeding, and (3) uncontrolled systemic diseases or blood dyscrasias. Tonsillectomy or adenoidectomy is not contraindicated in sickle cell disease or seizure disorders.

5. The clinic nurse is administering influenza vaccinations. Which children should not receive the live attenuated influenza vaccine (LAIV)? (*Select all that apply.*)

- a. A child with asthma
- b. A child with diabetes

- c. A child with hemophilia A
- d. A child with cancer receiving chemotherapy
- e. A child with gastroesophageal reflux disease

ANS: A, B, D

The live attenuated influenza vaccine (LAIV) is an acceptable alternative to the IM vaccine (IIV) for ages 2 to 49 years. It is a live vaccine administered via nasal spray. Several groups are excluded from receiving it, including children with a chronic heart or lung disease (asthma or reactive airways disease), diabetes, or kidney failure; children who are immunocompromised or receiving immunosuppressants; children younger than 5 years of age with a history of recurrent wheezing; children receiving aspirin; patients who are pregnant; children who have a severe allergy to chicken eggs or who are allergic to any of the nasal spray vaccine components; or children with a history of Guillain-Barr Syndrome after a previous dose. A child with hemophilia A or gastroesophageal reflux disease would not be immunocompromised so they can receive the LAIV.

6. The nurse is preparing to admit a 7-year-old child with acute laryngotracheobronchitis (LTB). What clinical manifestations should the nurse expect to observe? *(Select all that apply.)*

- a. Dysphagia
- b. Brassy cough
- c. Low-grade fever
- d. Toxic appearance
- e. Slowly progressive

ANS: B, C, E

Clinical manifestations of LTB include a brassy cough, low-grade fever, and slow progression. Dysphagia and a toxic appearance are characteristics of acute epiglottitis.

7. The nurse is preparing to admit a 3-year-old child with acute spasmodic laryngitis. What clinical features of hepatitis B should the nurse recognize? *(Select all that apply.)*

- a. High fever
- b. Croupy cough
- c. Tendency to recur
- d. Purulent secretions
- e. Occurs sudden, often at night

ANS: B, C, E

Clinical features of acute spasmodic laryngitis include a croupy cough, a tendency to recur, and occurring sudden, often at night. High fever is a feature of acute epiglottitis and purulent secretions are seen with acute tracheitis.

8. A child is diagnosed with active pulmonary tuberculosis. What medications does the nurse anticipate to be prescribed for the first 2 months? *(Select all that apply.)*

- a. Isoniazid (INH)
- b. Cefuroxime (Ceftin)
- c. Rifampin (Rifadin)

- d. Pyrazinamide (PZA)
- e. Ethambutol (Myambutol)

ANS: A, C, D, E

For the child with clinically active pulmonary and extrapulmonary TB, the goal is to achieve sterilization of the tuberculous lesion. The American Academy of Pediatrics (2012) recommends a 6-month regimen consisting of INH, rifampin, ethambutol, and PZA given daily or twice weekly for the first 2 months followed by INH and rifampin given two or three times a week by DOT for the remaining 4 months (*Mycobacterium tuberculosis*). Cefuroxime is not part of the regimen.

9. The nurse is interpreting a tuberculin skin test. If the nurse finds a result of an induration 5 mm or larger, in which child should the nurse document this finding as positive? (*Select all that apply.*)

- a. A child with diabetes mellitus
- b. A child younger than 4 years of age
- c. A child receiving immunosuppressive therapy
- d. A child with a human immunodeficiency virus (HIV) infection
- e. A child living in close contact with a known contagious case of tuberculosis

ANS: C, D, E

A tuberculin skin test with an induration of 5 mm or larger is considered to be positive if the child is receiving immunosuppressive therapy, has an HIV infection, or is living in close contact with a known contagious case of tuberculosis. The test would be considered positive in a child who has diabetes mellitus or is younger than 4 years of age if the tuberculin skin test had an induration of 10 mm or larger.

10. The nurse is preparing to admit a 7-year-old child with pulmonary edema. What clinical manifestations should the nurse expect to observe? (*Select all that apply.*)

- a. Fever
- b. Bradycardia
- c. Diaphoresis
- d. Pink frothy sputum
- e. Respiratory crackles

ANS: C, D, E

Clinical manifestations of pulmonary edema include diaphoresis, pink frothy sputum, and respiratory crackles. Fever or bradycardia are not manifestations of pulmonary edema.

### COMPLETION

1. The nurse is calculating the amount of expected urinary output for a 24-hour period on a child with bacterial pneumonia who weighs 22 lb. The nurse recognizes the formula to be used is 1 ml/kg/hr. What is the expected 24-hour urinary output for this child in milliliters? Record your answer below in a whole number.

ANS:

240

Perform the calculation.



$$22/2.2 = 10 \text{ kg}$$

$$10 \times 24 = 240 \text{ ml}$$

2. The nurse is calculating the amount of expected urinary output for a 24-hour period on a child with laryngotracheobronchitis who weighs 33 lb. The nurse recognizes the formula to be used is 1 ml/kg/hr. What is the expected 24-hour urinary output for this child in milliliters? Record your answer below in a whole number.

ANS:

360

Perform the calculation.

$$33/2.2 = 15 \text{ kg}$$

$$15 \times 24 = 360 \text{ ml}$$

3. The health care provider prescribes ceftazidime (Fortaz) 75 mg per intravenous piggy back (IVPB) every 8 hours for a child with cystic fibrosis. The pharmacy sends the medication to the unit in a 100-ml bag with directions to run the medication over 30 minutes. What milliliters per hour will the nurse set the intravenous pump to run the medication over 30 minutes? Fill in the blank and record your answer in a whole number.

ANS:

200

Perform the calculation.

100 ml

$$\frac{100 \text{ ml}}{30 \text{ minutes}} \times 60 \text{ minutes} = 200 \text{ ml/hr}$$

30 minutes

4. The health care provider prescribes vancomycin 200 mg per intravenous piggy back (IVPB) every 6 hours for a child with cystic fibrosis. The pharmacy sends the medication to the unit in a 150-ml bag with directions to run the medication over 120 minutes. What milliliters per hour will the nurse set the intravenous pump to run the medication over 120 minutes? Fill in the blank and record your answer in a whole number.

ANS:

75

Perform the calculation.

$$\text{Convert the minutes to hours} = 120/60 = 2 \text{ hours}$$

150 ml

$$\frac{150 \text{ ml}}{2 \text{ hours}} = 75 \text{ ml/hr}$$

2 hours

## Chapter 21: Alterations in Cardiac Function

### MULTIPLE CHOICE

1. What term is defined as the volume of blood ejected by the heart in 1 minute?

a. Afterload

b. Cardiac cycle

- c. Stroke volume
- d. Cardiac output

ANS: D

Cardiac output is defined as the volume of blood ejected by the heart in 1 minute. Cardiac output = Heart rate x Stroke volume. Afterload is the resistance against which the ventricles must pump when ejecting blood (ventricular ejection). A cardiac cycle is the sequential contraction and relaxation of both the atria and ventricles. Stroke volume is the amount of blood ejected by the heart in any one contraction.

2. A chest radiography examination is ordered for a child with suspected cardiac problems. The child's parent asks the nurse, What will the x-ray show about the heart? The nurse's response should be based on knowledge that the radiograph provides which information?

- a. Shows bones of the chest but not the heart
- b. Evaluates the vascular anatomy outside of the heart
- c. Shows a graphic measure of electrical activity of the heart
- d. Supplies information on heart size and pulmonary blood flow patterns

ANS: D

Chest radiographs provide information on the size of the heart and pulmonary blood flow patterns. The bones of the chest are visible on chest radiographs, but the heart and blood vessels are also seen. Magnetic resonance imaging is a noninvasive technique that allows for evaluation of vascular anatomy outside of the heart. A graphic measure of electrical activity of the heart is provided by electrocardiography.

3. A 6-year-old child is scheduled for a cardiac catheterization. What consideration is most important in planning preoperative teaching?

- a. Preoperative teaching should be directed at his parents because he is too young to understand.
- b. Preoperative teaching should be adapted to his level of development so that he can understand.
- c. Preoperative teaching should be done several days before the procedure so he will be prepared.
- d. Preoperative teaching should provide details about the actual procedures so he will know what to expect.

ANS: B

Preoperative teaching should always be directed to the child's stage of development. The caregivers also benefit from these explanations. The parents may ask additional questions, which should be answered, but the child needs to receive the information based on developmental level. This age group will not understand in-depth descriptions. School-age children should be prepared close to the time of the cardiac catheterization.

4. After returning from cardiac catheterization, the nurse monitors the child's vital signs. The heart rate should be counted for how many seconds?

- a. 15
- b. 30
- c. 60
- d. 120

ANS: C

The heart rate is counted for a full minute to determine whether arrhythmias or bradycardia is present. Fifteen to 30 seconds are too short for accurate assessment. Sixty seconds is sufficient to assess heart rate and rhythm.

5. After returning from cardiac catheterization, the nurse determines that the pulse distal to the catheter insertion site is weaker. How should the nurse respond?

- a. Elevate the affected extremity.
- b. Notify the practitioner of the observation.
- c. Record data on the assessment flow record.
- d. Apply warm compresses to the insertion site.

ANS: C

The pulse distal to the catheterization site may be weaker for the first few hours after catheterization but should gradually increase in strength. Documentation of the finding provides a baseline. The extremity is maintained straight for 4 to 6 hours. This is an expected change. The pulse is monitored. If there are neurovascular changes in the extremity, the practitioner is notified. The site is kept dry. Warm compresses are not indicated.

6. The nurse is caring for a school-age girl who has had a cardiac catheterization. The child tells the nurse that her bandage is too wet. The nurse finds the bandage and bed soaked with blood.

What nursing action is most appropriate to institute initially?

- a. Notify the physician.
- b. Place the child in Trendelenburg position.
- c. Apply a new bandage with more pressure.
- d. Apply direct pressure above the catheterization site.

ANS: D

When bleeding occurs, direct continuous pressure is applied 2.5 cm (1 inch) above the percutaneous skin site to localize pressure on the vessel puncture. The physician can be notified, and a new bandage with more pressure can be applied after pressure is applied. The nurse can have someone else notify the physician while the pressure is being maintained. Trendelenburg positioning would not be a helpful intervention. It would increase the drainage from the lower extremities.

7. What statement best identifies the cause of heart failure (HF)?

- a. Disease related to cardiac defects
- b. Consequence of an underlying cardiac defect
- c. Inherited disorder associated with a variety of defects
- d. Result of diminished workload imposed on an abnormal myocardium

ANS: B

HF is the inability of the heart to pump an adequate amount of blood to the systemic circulation at normal filling pressures to meet the body's metabolic demands. HF is not a disease but rather a result of the inability of the heart to pump efficiently. HF is not inherited. HF occurs most frequently secondary to congenital heart defects in which structural abnormalities result in increased volume load or increased pressures on the ventricles.

8. The nurse finds that a 6-month-old infant has an apical pulse of 166 beats/min during sleep. What nursing intervention is most appropriate at this time?

- a. Administer oxygen.
- b. Record data on the nurses notes.
- c. Report data to the practitioner.
- d. Place the child in the high Fowler position.

ANS: C

One of the earliest signs of HF is tachycardia (sleeping heart rate >160 beats/min) as a direct result of sympathetic stimulation. The practitioner needs to be notified for evaluation of possible HF. Although oxygen or a semiupright position may be indicated, the first action is to report the data to the practitioner.

9. What drug is an angiotensin-converting enzyme (ACE) inhibitor?

- a. Furosemide (Lasix)
- b. Captopril (Capoten)
- c. Chlorothiazide (Diuril)
- d. Spironolactone (Aldactone)

ANS: B

Captopril is an ACE inhibitor. Furosemide is a loop diuretic. Chlorothiazide works on the distal tubules. Spironolactone blocks the action of aldosterone and is a potassium-sparing diuretic.

10. A 2-year-old child is receiving digoxin (Lanoxin). The nurse should notify the practitioner and withhold the medication if the apical pulse is less than which rate?

- a. 60 beats/min
- b. 90 beats/min
- c. 100 beats/min
- d. 120 beats/min

ANS: B

If a 1-minute apical pulse is less than 90 beats/min for an infant or young child, the digoxin is withheld. Sixty beats/min is the cut-off for holding the digoxin dose in an adult. One hundred to 120 beats/min is an acceptable pulse rate for the administration of digoxin.

11. What clinical manifestation is a common sign of digoxin toxicity?

- a. Seizures
- b. Vomiting
- c. Bradypnea
- d. Tachycardia

ANS: B

Vomiting is a common sign of digoxin toxicity and is often unrelated to feedings. Seizures are not associated with digoxin toxicity. The child will have a slower (not faster) heart rate but not a slower respiratory rate.

12. The parents of a young child with heart failure (HF) tell the nurse that they are nervous about giving digoxin. The nurses response should be based on which knowledge?

- a. It is a safe, frequently used drug.

- b. Parents lack the expertise necessary to administer digoxin.
- c. It is difficult to either overmedicate or undermedicate with digoxin.
- d. Parents need to learn specific, important guidelines for administration of digoxin.

ANS: D

Digoxin has a narrow therapeutic range. The margin of safety between therapeutic, toxic, and lethal doses is very small. Specific guidelines are available for parents to learn how to administer the drug safely and to monitor for side effects. Parents may lack the expertise to administer the drug at first, but with discharge preparation, they should be prepared to administer the drug safely.

13. What nutritional component should be altered in the infant with heart failure (HF)?

- a. Decrease in fats
- b. Increase in fluids
- c. Decrease in protein
- d. Increase in calories

ANS: D

Infants with HF have a greater metabolic rate because of poor cardiac function and increased heart and respiratory rates. Their caloric needs are greater than those of average infants, yet their ability to take in calories is diminished by their fatigue. The diet should include increased protein and increased fat to facilitate the child's intake of sufficient calories. Fluids must be carefully monitored because of the HF.

14. Decreasing the demands on the heart is a priority in care for the infant with heart failure (HF). In evaluating the infant's status, which finding is indicative of achieving this goal?

- a. Irritability when awake
- b. Capillary refill of more than 5 seconds
- c. Appropriate weight gain for age
- d. Positioned in high Fowler position to maintain oxygen saturation at 90%

ANS: C

Appropriate weight gain for an infant is indicative of successful feeding and a reduction in caloric loss secondary to the HF. Irritability is a symptom of HF. The child also uses additional energy when irritable. Capillary refill should be brisk and within 2 to 3 seconds. The child needs to be positioned upright to maintain oxygen saturation at 90%. Positioning is helping to decrease respiratory effort, but the infant is still having difficulty with oxygenation.

15. The nurse is caring for a child with persistent hypoxia secondary to a cardiac defect. The nurse recognizes the risk of cerebrovascular accidents (strokes) occurring. What strategy is an important objective to decrease this risk?

- a. Minimize seizures.
- b. Prevent dehydration.
- c. Promote cardiac output.
- d. Reduce energy expenditure.

ANS: B

In children with persistent hypoxia, polycythemia develops. Dehydration must be prevented in hypoxemic children because it potentiates the risk of strokes. Minimizing seizures, promoting cardiac output, and reducing energy expenditure will not reduce the risk of cerebrovascular accidents.

16. A 3-month-old infant has a hypercyanotic spell. What should be the nurses first action?

- a. Assess for neurologic defects.
- b. Prepare the family for imminent death.
- c. Begin cardiopulmonary resuscitation.
- d. Place the child in the kneechest position.

ANS: D

The first action is to place the infant in the kneechest position. Blow-by oxygen may be indicated. Neurologic defects are unlikely. Preparing the family for imminent death or beginning cardiopulmonary resuscitation should be unnecessary. The child is assessed for airway, breathing, and circulation. Often, calming the child and administering oxygen and morphine can alleviate the hypercyanotic spell.

17. A cardiac defect that allows blood to shunt from the (high pressure) left side of the heart to the (lower pressure) right side can result in which condition?

- a. Cyanosis
- b. Heart failure
- c. Decreased pulmonary blood flow
- d. Bounding pulses in upper extremities

ANS: B

As blood is shunted into the right side of the heart, there is increased pulmonary blood flow and the child is at high risk for heart failure. Cyanosis usually occurs in defects with decreased pulmonary blood flow. Bounding upper extremity pulses are a manifestation of coarctation of the aorta.

18. What blood flow pattern occurs in a ventricular septal defect?

- a. Mixed blood flow
- b. Increased pulmonary blood flow
- c. Decreased pulmonary blood flow
- d. Obstruction to blood flow from ventricles

ANS: B

The opening in the septal wall allows for blood to flow from the higher pressure left ventricle into the lower pressure right ventricle. This left-to-right shunt creates increased pulmonary blood flow. The shunt is one way, from high pressure to lower pressure; oxygenated and unoxygenated blood do not mix. The outflow of blood from the ventricles is not affected by the septal defect.

19. The physician suggests that surgery be performed for patent ductus arteriosus (PDA) to prevent which complication?

- a. Hypoxemia
- b. Right-to-left shunt of blood

- c. Decreased workload on the left side of the heart
- d. Pulmonary vascular congestion

ANS: D

In PDA, blood flows from the higher pressure aorta into the lower pressure pulmonary vein, resulting in increased pulmonary blood flow. This creates pulmonary vascular congestion. Hypoxemia usually results from defects with mixed blood flow and decreased pulmonary blood flow. The shunt is from left to right in a PDA. The closure would stop this. There is increased workload on the left side of the heart with a PDA.

20. What cardiovascular defect results in obstruction to blood flow?

- a. Aortic stenosis
- b. Tricuspid atresia
- c. Atrial septal defect
- d. Transposition of the great arteries

ANS: A

Aortic stenosis is a narrowing or stricture of the aortic valve, causing resistance to blood flow in the left ventricle, decreased cardiac output, left ventricular hypertrophy, and pulmonary vascular congestion. Tricuspid atresia results in decreased pulmonary blood flow. The atrial septal defect results in increased pulmonary blood flow. Transposition of the great arteries results in mixed blood flow.

21. What structural defects constitute tetralogy of Fallot?

- a. Pulmonary stenosis, ventricular septal defect, overriding aorta, right ventricular hypertrophy
- b. Aortic stenosis, ventricular septal defect, overriding aorta, right ventricular hypertrophy
- c. Aortic stenosis, ventricular septal defect, overriding aorta, left ventricular hypertrophy
- d. Pulmonary stenosis, ventricular septal defect, aortic hypertrophy, left ventricular hypertrophy

ANS: A

Tetralogy of Fallot has these four characteristics: pulmonary stenosis, ventricular septal defect, overriding aorta, and right ventricular hypertrophy.

22. The parents of a 3-year-old child with congenital heart disease are afraid to let their child play with other children because of possible overexertion. How should the nurse reply to this concern?

- a. The parents should meet all the child's needs.
- b. The child needs opportunities to play with peers.
- c. Constant parental supervision is needed to avoid overexertion.
- d. The child needs to understand that peers' activities are too strenuous.

ANS: B

The child needs opportunities for social development. Children are able to regulate and limit their activities based on their energy level. Parents must be encouraged to seek appropriate social activities for the child, especially before kindergarten. The child needs to have activities that foster independence.

23. What preparation should the nurse consider when educating a school-age child and the family for heart surgery?

- a. Unfamiliar equipment should not be shown.
- b. Let the child hear the sounds of a cardiac monitor, including alarms.
- c. Explain that an endotracheal tube will not be needed if the surgery goes well.
- d. Discussion of postoperative discomfort and interventions is not necessary before the procedure.

ANS: B

The child and family should be exposed to the sights and sounds of the intensive care unit (ICU). All positive, nonfrightening aspects of the environment are emphasized. The family and child should make the decision about a tour of the unit if it is an option. The child should be shown unfamiliar equipment and its use demonstrated on a doll. Carefully prepare the child for the postoperative experience, including intravenous lines, incision, endotracheal tube, expected discomfort, and management strategies.

24. Seventy-two hours after cardiac surgery, a young child has a temperature of 38.4 C (101.1 F). What action should the nurse perform?

- a. Report findings to the practitioner.
- b. Apply a hypothermia blanket.
- c. Keep the child warm with blankets.
- d. Record the temperature on the assessment flow sheet.

ANS: A

In the first 24 to 48 hours after surgery, the body temperature may increase to 37.8 C (100 F) as part of the inflammatory response to tissue trauma. If the temperature is higher or fever continues after this period, it is most likely a sign of an infection, and immediate investigation is indicated. A hypothermia blanket is not indicated for this level of temperature. Blankets should be removed from the child to keep the temperature from increasing. The temperature should be recorded, but the practitioner must be notified for evaluation.

25. What nursing consideration is important when suctioning a young child who has had heart surgery?

- a. Perform suctioning at least every hour.
- b. Suction for no longer than 30 seconds at a time.
- c. Expect symptoms of respiratory distress when suctioning.
- d. Administer supplemental oxygen before and after suctioning.

ANS: D

When suctioning is indicated, supplemental oxygen is administered with a manual resuscitation bag before and after the procedure to prevent hypoxia. Suctioning should be done only as indicated and very carefully to avoid vagal stimulation. The child should be suctioned for no more than 5 seconds at a time. Symptoms of respiratory distress are avoided by using appropriate technique.

26. The nurse notices that a child is increasingly apprehensive and has tachycardia after heart surgery. The chest tube drainage is now 8 ml/kg/hr. What should be the nurses initial intervention?

- a. Apply warming blankets.
- b. Notify the practitioner of these findings.



- 
- c. Give additional pain medication per protocol.
  - d. Encourage child to cough, turn, and deep breathe.
- 

ANS: B

The practitioner is notified immediately. Increases of chest tube drainage to more than 3 ml/kg/hr for more than 3 consecutive hours or 5 to 10 ml/kg in any 1 hour may indicate postoperative hemorrhage. Increased chest tube drainage with apprehensiveness and tachycardia may indicate cardiac tamponade blood or fluid in the pericardial space constricting the heart which is a life-threatening complication. Warming blankets are not indicated at this time. Additional pain medication can be given before the practitioner drains the fluid, but the notification is the first action. Encouraging the child to cough, turn, and deep breathe should be deferred until after evaluation by the practitioner.

27. A parent of a 7-year-old girl with a repaired ventricular septal defect (VSD) calls the cardiology clinic and reports that the child is just not herself. Her appetite is decreased, she has had intermittent fevers around 38 C (100.4 F), and now her muscles and joints ache. Based on this information, how should the nurse advise the mother?

- 
- a. Immediately bring the child to the clinic for evaluation.
  - b. Come to the clinic next week on a scheduled appointment.
  - c. Treat the signs and symptoms with acetaminophen and fluids because it is most likely a viral illness.
  - d. Recognize that the child is trying to manipulate the parent by complaining of vague symptoms.
- 

ANS: A

These are the insidious symptoms of bacterial endocarditis. Because the child is in a high-risk group for this disorder (VSD repair), immediate evaluation and treatment are indicated to prevent cardiac damage. With appropriate antibiotic therapy, bacterial endocarditis is successfully treated in approximately 80% of the cases. The child's complaints should not be dismissed. The low-grade fever is not a symptom that the child can fabricate.

28. What primary nursing intervention should be implemented to prevent bacterial endocarditis?

- 
- a. Counsel parents of high-risk children.
  - b. Institute measures to prevent dental procedures.
  - c. Encourage restricted mobility in susceptible children.
  - d. Observe children for complications, such as embolism and heart failure.
- 

ANS: A

The objective of nursing care is to counsel the parents of high-risk children about the need for both prophylactic antibiotics for dental procedures and maintaining excellent oral health. The child's dentist should be aware of the child's cardiac condition. Dental procedures should be done to maintain a high level of oral health. Restricted mobility in susceptible children is not indicated. Parents are taught to observe for unexplained fever, weight loss, or change in behavior.

29. What sign/symptom is a major clinical manifestation of rheumatic fever (RF)?

- 
- a. Fever
  - b. Polyarthrititis
-

- c. Osler nodes
- d. Janeway spots

ANS: B

Polyarthritis, which is swollen, hot, red, and painful joints, is a major clinical manifestation. The affected joints will change every 1 or 2 days. The large joints are primarily affected. Fever is considered a minor manifestation of RF. Osler nodes and Janeway spots are characteristic of bacterial endocarditis.

30. What action by the school nurse is important in the prevention of rheumatic fever (RF)?

- a. Encourage routine cholesterol screenings.
- b. Conduct routine blood pressure screenings.
- c. Refer children with sore throats for throat cultures.
- d. Recommend salicylates instead of acetaminophen for minor discomforts.

ANS: C

Nurses have a role in prevention, primarily in screening school-age children for sore throats caused by group A streptococci. They can actively participate in throat culture screening or refer children with possible streptococcal sore throats for testing. Routine cholesterol screenings and blood pressure screenings do not facilitate the recognition and treatment of group A hemolytic streptococci. Salicylates should be avoided routinely because of the risk of Reye syndrome after viral illnesses.

31. When caring for the child with Kawasaki disease, what should the nurse know to provide safe and effective care?

- a. Aspirin is contraindicated.
- b. The principal area of involvement is the joints.
- c. The child's fever is usually responsive to antibiotics within 48 hours.
- d. Therapeutic management includes administration of gamma globulin and salicylates.

ANS: D

High-dose intravenous gamma globulin and salicylate therapy are indicated to reduce the incidence of coronary artery abnormalities when given within the first 10 days of the illness. Aspirin is part of the therapy. Mucous membranes, conjunctiva, changes in the extremities, and cardiac involvement are seen. The fever of Kawasaki disease is unresponsive to antibiotics. It is responsive to anti-inflammatory doses of aspirin and antipyretics.

32. Nursing care of the child with Kawasaki disease is challenging because of which occurrence?

- a. The child's irritability
- b. Predictable disease course
- c. Complex antibiotic therapy
- d. The child's ongoing requests for food

ANS: A

Patient irritability is a hallmark of Kawasaki disease and is the most challenging problem. A quiet environment is necessary to promote rest. The diagnosis is often difficult to make, and the course of the disease can be unpredictable. Intravenous gamma globulin and salicylates are the

therapy of choice, not antibiotics. The child often is reluctant to eat. Soft foods and fluids should be offered to prevent dehydration.

33. The diagnosis of hypertension depends on accurate assessment of blood pressure (BP). What is the appropriate technique to measure a child's BP?

- a. Assess BP while the child is standing.
- b. Compare left arm with left leg BP readings.
- c. Use a narrow cuff to ensure that the readings are correct.
- d. Measure BP with the child in the sitting position on three separate occasions.

ANS: D

The diagnosis of hypertension is made after the BP is elevated on three separate occasions. Take the BP in a quiet area with the appropriate size cuff and the child sitting. Although left arm and left leg BP readings may be compared, it is not the procedure to diagnose hypertension. The appropriate size cuff is indicated. The most common cause of inaccurate readings is the use of a cuff that is too small.

34. What type of drug reduces hypertension by interfering with the production of angiotensin II?

- a. Diuretics
- b. Vasodilators
- c. Beta-blockers
- d. Angiotensin-converting enzyme (ACE) inhibitors

ANS: D

ACE inhibitors act by interfering with the production of angiotensin II, which is a potent vasoconstrictor. Diuretics lower blood pressure by increasing fluid output. Vasodilators act on the vascular smooth muscle. By causing arterial dilation, blood pressure is lowered. Beta-blockers interfere with beta stimulation and depress renin output.

35. Selective cholesterol screening is recommended for children older than the age of 2 years with which risk factor?

- a. Body mass index (BMI) = 95th percentile
- b. Blood pressure = 50th percentile
- c. Parent with a blood cholesterol level of 200 mg/dl
- d. Recently diagnosed cardiovascular disease in a 75-year-old grandparent

ANS: A

Obesity is an indication for cholesterol screening in children. A BMI in the 95th percentile or higher is considered obese. Children who are hypertensive meet the criteria for screening, but blood pressure in the 50th percentile is within the normal range. A parent or grandparent with a cholesterol level of 240 mg/dl or higher places the child at risk. Early cardiovascular disease in a first- or second-degree relative is a risk factor. Age 75 years is not considered early.

36. What condition is the leading cause of death after heart transplantation?

- a. Infection
- b. Rejection
- c. Cardiomyopathy

- 
- d. Heart failure

ANS: B

The posttransplant course is complex. The leading cause of death after cardiac transplant is rejection. Infection is a continued risk secondary to the immunosuppression necessary to prevent rejection. Cardiomyopathy is one of the indications for cardiac transplant. Heart failure is not a leading cause of death.

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## Chapter 22: Alterations in Neurological and Sensory Function

### MULTIPLE CHOICE

1. A nurse is explaining to parents how the central nervous system of a child differs from that of an adult. Which statement accurately describes these differences?

- 
- a. The infant has 150 milliliters of cerebrospinal fluid compared with 50 milliliters in the adult.
- 
- b. Papilledema is a common manifestation of increased intracranial pressure in the very young child.
- 
- c. The brain of a term infant weighs less than half of the weight of the adult brain.
- 
- d. Coordination and fine motor skills develop as myelination of peripheral nerves progresses.

ANS: D

Peripheral nerves are not completely myelinated at birth. As myelination progresses, so does the child's coordination and fine muscle movements. An infant has about 50 milliliters of cerebrospinal fluid compared with 150 milliliters in an adult. Papilledema rarely occurs in infancy because open fontanels and sutures can expand in the presence of increased intracranial pressure. The brain of the term infant is two-thirds the weight of an adult's brain.

2. A nurse is assessing a 1-year-old child for increased intracranial pressure (ICP). Which sign should the nurse assess for with this age of child?

- 
- a. Headache
- 
- b. Bulging fontanel
- 
- c. Tachypnea
- 
- d. Increase in head circumference

ANS: A

Headaches are a clinical manifestation of increased ICP in children. A change in the child's normal behavior pattern may be an important early sign of increased ICP. A bulging fontanel is a manifestation of increased ICP in infants. A 10-year-old child would have a closed fontanel. A change in respiratory pattern is a late sign of increased ICP. Cheyne-Stokes respiration may be evident. This refers to a pattern of increasing rate and depth of respirations followed by a decreasing rate and depth with a pause of variable length. By 10 years of age, cranial sutures have fused so that head circumference will not increase in the presence of increased ICP.

3. The nurse should give a child who is to have magnetic resonance imaging (MRI) of the brain which information?

- 
- a. Your head will be restrained.
- 
- b. You will have to drink a special fluid before the test.

- c. You will have to lie flat after the test is finished.
- d. You will have electrodes placed on your head with glue.

ANS: A

To reduce fear and enhance cooperation during the MRI, the child should be made aware that his head will be restricted to obtain accurate information. Drinking fluids is usually done for gastrointestinal procedures. A child would lie flat after a lumbar puncture, not during an MRI. Electrodes are attached to the head for an electroencephalogram.

4. A child with spina bifida is being admitted to the hospital for a shunt revision? The nurse admitting the child anticipates which type of precautions to be ordered for the child?

- a. Latex
- b. Bleeding
- c. Seizure
- d. Isolation

ANS: A

Children with spina bifida are at high risk for developing latex allergies because of frequent exposure to latex during catheterizations, shunt placements, and other operations. The child with spina bifida does not have a risk for bleeding. Not all children with spina bifida are at risk for seizures and isolation would not be indicated in a child being admitted for a shunt revision.

5. Nursing care of the infant who has had a myelomeningocele repair should include which intervention?

- a. Securely fastening the diaper
- b. Measurement of pupil size
- c. Measurement of head circumference
- d. Administration of seizure medications

ANS: C

Head circumference measurement is essential because hydrocephalus can develop in these infants. A diaper should be placed under the infant but not fastened. Keeping the diaper open facilitates frequent cleaning and decreases the risk for skin breakdown. Pupil size measurement is usually not necessary. Head circumference measurement is essential because hydrocephalus can develop in these infants.

6. When a 2-week-old infant is seen for irritability, poor appetite, and rapid head growth with an observable distended scalp vein, the nurse recognizes these signs as indicative of which condition?

- a. Hydrocephalus
- b. SIADH (syndrome of inappropriate antidiuretic hormone)
- c. Cerebral palsy
- d. Reyes syndrome

ANS: A

The combination of signs is strongly suggestive of hydrocephalus. SIADH would not present in this way. The child would have decreased urination, hypertension, weight gain, fluid retention,

hyponatremia, and increased urine specific gravity. The manifestations of cerebral palsy vary but may include persistence of primitive reflexes, delayed gross motor development, and lack of progression through developmental milestones. Reyes syndrome is associated with an antecedent viral infection with symptoms of malaise, nausea, and vomiting. Progressive neurological deterioration occurs.

7. A child is admitted to the hospital with spastic cerebral palsy. The nurse will assess for which manifestations associated with this disorder?

- a. Tremulous movements at rest and with activity
- b. Sudden jerking movement caused by stimuli
- c. Writhing, uncontrolled, involuntary movements
- d. Clumsy, uncoordinated movements

ANS: B

Spastic cerebral palsy, the most common type of cerebral palsy, will manifest with hypertonicity and increased deep tendon reflexes. The child's muscles are very tight and any stimuli may cause a sudden jerking movement. Tremulous movements are characteristic of rigid/tremor/athetoid cerebral palsy. Slow, writhing, uncontrolled, involuntary movements occur with athetoid or dyskinetic cerebral palsy. Clumsy movements and loss of coordination, equilibrium, and kinesthetic sense occur in ataxic cerebral palsy.

8. Which finding in an analysis of cerebrospinal fluid (CSF) is consistent with a diagnosis of bacterial meningitis?

- a. CSF appears cloudy.
- b. CSF pressure is decreased.
- c. Few leukocytes are present.
- d. Glucose level is increased compared with blood.

ANS: A

In acute bacterial meningitis, the CSF is cloudy to milky or yellowish in color. The CSF pressure is usually increased in acute bacterial meningitis. Many polymorphonuclear cells are present in CSF with acute bacterial meningitis. The CSF glucose level is usually decreased compared with the serum glucose level.

9. Which would be an appropriate nursing intervention for the child with a tension headache?

- a. Assess for an aura.
- b. Maintain complete bed rest.
- c. Administer pharmacological headache relief measures.
- d. Assess for nausea and vomiting.

ANS: C

Administration of pharmacological techniques is appropriate to assist in the management of a tension headache. An aura is associated with migraines but not with tension headaches.

Complete bed rest is not required. Nausea and vomiting are associated with a migraine but not with tension headaches.

10. How should the nurse explain positioning for a lumbar puncture to a 5-year-old child?

- a. You will be on your knees with your head down on the table.

- b. You will be able to sit up with your chin against your chest.
- c. You will be on your side with the head of your bed slightly raised.
- d. You will lie on your side and bend your knees so that they touch your chin.

ANS: D

The child should lie on her side with knees bent and chin tucked into the knees. This position exposes the area of the back for the lumbar puncture. The knee-chest position is not appropriate for a lumbar puncture. An infant can be placed in a sitting position with the infant facing the nurse and the head steadied against the nurses body. A side-lying position with the head of the bed elevated is not appropriate for a lumbar puncture.

11. A mother reports that her child has episodes in which he appears to be staring into space. This behavior is characteristic of which type of seizure?

- a. Absence
- b. Atonic
- c. Tonic-clonic
- d. Simple partial

ANS: A

Absence seizures are very brief episodes of altered awareness. The child has a blank expression. Atonic seizures cause an abrupt loss of postural tone, loss of consciousness, confusion, lethargy, and sleep. Tonic-clonic seizures involve sustained generalized muscle contractions followed by alternating contraction and relaxation of major muscle groups. There is no change in level of consciousness with simple partial seizures. Simple partial seizures consist of motor, autonomic, or sensory symptoms.

12. What is the best response to a father who tells the nurse that his son daydreams at home and his teacher has observed this behavior at school?

- a. Your son must have an active imagination.
- b. Can you tell me exactly how many times this occurs in one day?
- c. Tell me about your sons activity when you notice the daydreams.
- d. He is probably getting tired and needs a rest.

ANS: C

The daydream episodes are suggestive of absence seizures and data about activity associated with the daydreams should be obtained. Suggesting that the child has an active imagination does not address the childs symptoms or the fathers concern. The number of times the behavior occurs is consistent with absence seizures, which can occur one after the other several times a day.

Determining an exact number of absence seizures is not as useful as learning about behavior before the seizure that might have precipitated seizure activity. Blaming the seizures on rest ignores both the childs symptoms and the fathers concern about the daydreaming behavior.

13. The nurse teaches parents to alert their healthcare provider about which adverse effect when a child receives valproic acid (Depakene) to control generalized seizures?

- a. Weight loss
- b. Bruising
- c. Anorexia

- 
- d. Drowsiness

ANS: B

Thrombocytopenia is an adverse effect of valproic acid. Parents should be alert for any unusual bruising or bleeding. Weight gain, not loss or anorexia, is a side effect of valproic acid.

Drowsiness is not a side effect of valproic acid, although it is associated with other anticonvulsant medications.

14. A child with a head injury sleeps unless aroused, and when aroused responds briefly before falling back to sleep. Which term corresponds to this child's level of consciousness?

- 
- a. Disoriented
- 
- b. Obtunded
- 
- c. Lethargic
- 
- d. Stuporous

ANS: B

Obtunded describes an individual who sleeps unless aroused and once aroused has limited interaction with the environment. Disoriented refers to the lack of ability to recognize place or person. An individual is lethargic when he or she awakens easily but exhibits limited responsiveness. Stupor refers to requiring considerable stimulation to arouse the individual.

15. What is the most appropriate nursing action when a child is in the tonic phase of a generalized tonic-clonic seizure?

- 
- a. Guide the child to the floor if he is standing and go for help.
- 
- b. Turn the child's body on his side.
- 
- c. Place a padded tongue blade between the teeth.
- 
- d. Quickly slip soft restraints on the child's wrists.

ANS: B

Positioning the child on his side will prevent aspiration. The child should be placed on a soft surface if he is not in bed; however, it would be inappropriate to leave the child during the seizure. Nothing should be inserted into the child's mouth during a seizure to prevent injury to the mouth, gums, or teeth. Restraints could cause injury. Sharp objects and furniture should be moved out of the way to prevent injury.

DIF: Cognitive Level: Application REF: p. 759

OBJ: Nursing Process Step: Implementation MSC: Physiological Integrity

16. After a tonic-clonic seizure, it would not be unusual for a child to display which symptom?

- 
- a. Irritability and hunger
- 
- b. Lethargy and confusion
- 
- c. Nausea and vomiting
- 
- d. Nervousness and excitability

ANS: B

In the period after a tonic-clonic seizure, the child may be confused and lethargic. Some children may sleep for a period of time. Neither irritability nor hunger is typical of the period after a tonic-clonic seizure. Nausea and vomiting are not expected reactions in the postictal period. The child will more likely be confused and lethargic after a tonic-clonic seizure.



17. What should the nurse teach parents when the child is taking phenytoin (Dilantin) to control seizures?

- a. The child should use a soft toothbrush and floss his teeth after every meal.
- b. The child will require monitoring of his liver function while taking this medication.
- c. Dilantin should be taken with food because it causes gastrointestinal distress.
- d. The medication can be stopped when the child has been seizure free for 1 month.

ANS: A

A side effect of Dilantin is gingival hyperplasia. Good oral hygiene will minimize this adverse effect. The child receiving Depakene (valproic acid) should have liver function studies because this anticonvulsant may cause hepatic dysfunction. Dilantin has not been found to cause gastrointestinal upset. The medication can be taken without food. Anticonvulsants should never be stopped suddenly or without consulting the physician. Such action could result in seizure activity.

18. What is the most appropriate nursing response to the father of a newborn infant with myelomeningocele who asks about the cause of this condition?

- a. One of the parents carries a defective gene that causes myelomeningocele.
- b. A deficiency in folic acid in the father is the most likely cause.
- c. Offspring of parents who have a spinal abnormality are at greater risk for myelomeningocele.
- d. There may be no definitive cause identified.

ANS: D

The etiology of most neural tube defects is unknown in most cases. There may be a genetic predisposition or a viral origin, and the disorder has been linked to maternal folic acid deficiency; however, the actual cause has not been determined. The exact cause of most cases of neural tube defects is unknown. There may be a genetic predisposition, but no pattern has been identified. Folic acid deficiency in the mother has been linked to neural tube defect. There is no evidence that children who have parents with spinal problems are at greater risk for neural tube defects.

19. Which assessment noted in an infant 1 day after placement of a ventriculoperitoneal shunt is indicative of surgical complications?

- a. Hypoactive bowel sounds
- b. Congestion in upper airways
- c. Increasing lethargy
- d. Mild incisional pain

ANS: C

A decreasing level of consciousness indicates a problem with shunt function and should be reported immediately to the neurosurgeon. Peristalsis is depressed during surgery. Hypoactive bowel sounds may be evident after surgery as peristalsis returns to its preoperative function. Congestion in the upper airways may be evident after surgery. Mild incisional pain is a normal finding in the postoperative period.

20. Which change in vital signs should alert the nurse to increased intracranial pressure (ICP) in a child with a head injury?

- |    |                                                            |
|----|------------------------------------------------------------|
| a. | Rapid, shallow breathing                                   |
| b. | Irregular, rapid heart rate                                |
| c. | Increased diastolic pressure with narrowing pulse pressure |
| d. | Confusion and altered mental status                        |

ANS: D

The child with a head injury may have confusion and altered mental status, a change in vital signs, retinal hemorrhage, hemiparesis, and papilledema. Respiratory changes occur with increased intracranial pressure. One pattern that may be evident is Cheyne-Stokes respiration. This pattern of breathing is characterized by an increasing rate and depth, then a decreasing rate and depth, with a pause of variable length. Temperature elevation may occur in children with increased intracranial pressure. Changes in blood pressure occur, but the diastolic pressure does not increase, nor is there a narrowing of pulse pressure.

## Chapter 23: Alterations in Gastrointestinal Function

### MULTIPLE CHOICE

1. What test is used to screen for carbohydrate malabsorption?

- |    |                    |
|----|--------------------|
| a. | Stool pH           |
| b. | Urine ketones      |
| c. | C urea breath test |
| d. | ELISA stool assay  |

ANS: A

The anticipated pH of a stool specimen is 7.0. A stool pH of less than 5.0 is indicative of carbohydrate malabsorption. The bacterial fermentation of carbohydrates in the colon produces short-chain fatty acids, which lower the stool pH. Urine ketones detect the presence of ketones in the urine, which indicates the use of alternative sources of energy to glucose. The C urea breath test measures the amount of carbon dioxide exhaled. It is used to determine the presence of *Helicobacter pylori*. ELISA (enzyme-linked immunosorbent assay) detects the presence of antigens and antibodies. It is not useful for disorders of metabolism.

2. A toddler's mother calls the nurse because she thinks her son has swallowed a button type of battery. He has no signs of respiratory distress. The nurse's response should be based on which premise?

- |    |                                                                                             |
|----|---------------------------------------------------------------------------------------------|
| a. | An emergency laparotomy is very likely.                                                     |
| b. | The location needs to be confirmed by radiographic examination.                             |
| c. | Surgery will be necessary if the battery has not passed in the stool in 48 hours.           |
| d. | Careful observation is essential because an ingested battery cannot be accurately detected. |

ANS: B

Button batteries can cause severe damage if lodged in the esophagus. If both poles of the battery come in contact with the wall of the esophagus, acid burns, necrosis, and perforation can occur.

If the battery is in the stomach, it will most likely be passed without incident. Surgery is not indicated. The battery is metallic and is readily seen on radiologic examination.

3. The mother of a child with cognitive impairment calls the nurse because her son has been gagging and drooling all morning. The nurse suspects foreign body ingestion. What physiologic occurrence is most likely responsible for the presenting signs?

- a. Gastrointestinal perforation may have occurred.
- b. The object may have been aspirated.
- c. The object may be lodged in the esophagus.
- d. The object may be embedded in stomach wall.

ANS: C

Gagging and drooling may be signs of esophageal obstruction. The child is unable to swallow saliva, which contributes to the drooling. Signs of gastrointestinal (GI) perforation include chest or abdominal pain and evidence of bleeding in the GI tract. If the object was aspirated, the child would most likely have coughing, choking, inability to speak, or difficulty breathing. If the object was embedded in the stomach wall, it would not result in symptoms of gagging and drooling.

4. What is a high-fiber food that the nurse should recommend for a child with chronic constipation?

- a. White rice
- b. Popcorn
- c. Fruit juice
- d. Ripe bananas

ANS: B

Popcorn is a high-fiber food. Refined rice is not a significant source of fiber. Unrefined brown rice is a fiber source. Fruit juices are not a significant source of fiber. Raw fruits, especially those with skins and seeds, other than ripe bananas, have high fiber.

5. A 2-year-old child has a chronic history of constipation and is brought to the clinic for evaluation. What should the therapeutic plan initially include?

- a. Bowel cleansing
- b. Dietary modification
- c. Structured toilet training
- d. Behavior modification

ANS: A

The first step in the treatment of chronic constipation is to empty the bowel and allow the distended rectum to return to normal size. Dietary modification is an important part of the treatment. Increased fiber and fluids should be gradually added to the child's diet. A 2-year-old child is too young for structured toilet training. For an older child, a regular schedule for toileting should be established. Behavior modification is part of the overall treatment plan. The child practices releasing the anal sphincter and recognizing cues for defecation.

6. What statement best describes Hirschsprung disease?

- a. The colon has an aganglionic segment.

- b. It results in frequent evacuation of solids, liquid, and gas.
- c. The neonate passes excessive amounts of meconium.
- d. It results in excessive peristaltic movements within the gastrointestinal tract.

ANS: A

Mechanical obstruction in the colon results from a lack of innervation. In most cases, the aganglionic segment includes the rectum and some portion of the distal colon. There is decreased evacuation of the large intestine secondary to the aganglionic segment. Liquid stool may ooze around the blockage. The obstruction does not affect meconium production. The infant may not be able to pass the meconium stool. There is decreased movement in the colon.

7. What procedure is most appropriate for assessment of an abdominal circumference related to a bowel obstruction?

- a. Measuring the abdomen after feedings
- b. Marking the point of measurement with a pen
- c. Measuring the circumference at the symphysis pubis
- d. Using a new tape measure with each assessment to ensure accuracy

ANS: B

Pen marks on either side of the tape measure allow the nurse to measure the same spot on the child's abdomen at each assessment. The child most likely will be kept NPO (nothing by mouth) if a bowel obstruction is present. If the child is being fed, the assessment should be done before feedings. The symphysis pubis is too low. Usually the largest part of the abdomen is at the umbilicus. Leaving the tape measure in place reduces the trauma to the child.

8. A 3-year-old child with Hirschsprung disease is hospitalized for surgery. A temporary colostomy will be necessary. How should the nurse prepare this child?

- a. It is unnecessary because of child's age.
- b. It is essential because it will be an adjustment.
- c. Preparation is not needed because the colostomy is temporary.
- d. Preparation is important because the child needs to deal with negative body image.

ANS: B

The child's age dictates the type and extent of psychologic preparation. When a colostomy is performed, it is necessary to prepare the child who is at least preschool age by telling him or her about the procedure and what to expect in concrete terms, with the use of visual aids. The preschooler is not yet concerned with body image.

9. A child has a nasogastric (NG) tube after surgery for Hirschsprung disease. What is the purpose of the NG tube?

- a. Prevent spread of infection.
- b. Monitor electrolyte balance.
- c. Prevent abdominal distention.
- d. Maintain accurate record of output.

ANS: C

The NG tube is placed to suction out gastrointestinal secretions and prevent abdominal distention. The NG tube would not affect infection. Electrolyte content of the NG drainage can be monitored. Without the NG tube, there would be no drainage. After the NG tube is placed, it is important to maintain an accurate record of intake and output. This is not the reason for placement of the tube.

10. A parent of an infant with gastroesophageal reflux asks how to decrease the number and total volume of emesis. What recommendation should the nurse include in teaching this parent?

- a. Surgical therapy is indicated.
- b. Place in prone position for sleep after feeding.
- c. Thicken feedings and enlarge the nipple hole.
- d. Reduce the frequency of feeding by encouraging larger volumes of formula.

ANS: C

Thickened feedings decrease the child's crying and increase the caloric density of the feeding. Although it does not decrease the pH, the number and volume of emesis are reduced. Surgical therapy is reserved for children who have failed to respond to medical therapy or who have an anatomic abnormality. The prone position is not recommended because of the risk of sudden infant death syndrome. Smaller, more frequent feedings are more effective than less frequent, larger volumes of formula.

11. After surgery yesterday for gastroesophageal reflux, the nurse finds that the infant has somehow removed the nasogastric (NG) tube. What nursing action is most appropriate to perform at this time?

- a. Notify the practitioner.
- b. Insert the NG tube so feedings can be given.
- c. Replace the NG tube to maintain gastric decompression.
- d. Leave the NG tube out because it has probably been in long enough.

ANS: A

When surgery is performed on the upper gastrointestinal tract, usually the surgical team replaces the NG tube because of potential injury to the operative site. The decision to replace the tube or leave it out is made by the surgical team. Replacing the tube is also usually done by the practitioner because of the surgical site.

12. An adolescent with irritable bowel syndrome comes to see the school nurse. What information should the nurse share with the adolescent?

- a. A low-fiber diet is required.
- b. Stress management may be helpful.
- c. Milk products are a contributing factor.
- d. Pantoprazole (a proton pump inhibitor) is effective in treatment.

ANS: B

Irritable bowel syndrome is believed to involve motor, autonomic, and psychologic factors. Stress management, environmental modification, and psychosocial intervention may reduce stress and gastrointestinal symptoms. A high-fiber diet with psyllium supplement is often beneficial. Milk products can exacerbate bowel problems caused by lactose intolerance.

Antispasmodic drugs, antidiarrheal drugs, and simethicone are beneficial for some individuals. Proton pump inhibitors have no effect.

13. What clinical manifestation should be the most suggestive of acute appendicitis?

- a. Rebound tenderness
- b. Bright red or dark red rectal bleeding
- c. Abdominal pain that is relieved by eating
- d. Colicky, cramping, abdominal pain around the umbilicus

ANS: D

Pain is the cardinal feature. It is initially generalized, usually periumbilical. The pain becomes constant and may shift to the right lower quadrant. Rebound tenderness is not a reliable sign and is extremely painful to the child. Bright or dark red rectal bleeding and abdominal pain that is relieved by eating are not signs of acute appendicitis.

14. When caring for a child with probable appendicitis, the nurse should be alert to recognize which sign or symptom as a manifestation of perforation?

- a. Anorexia
- b. Bradycardia
- c. Sudden relief from pain
- d. Decreased abdominal distention

ANS: C

Signs of peritonitis, in addition to fever, include sudden relief from pain after perforation. Anorexia is already a clinical manifestation of appendicitis. Tachycardia, not bradycardia, is a manifestation of peritonitis. Abdominal distention usually increases in addition to an increase in pain (usually diffuse and accompanied by rigid guarding of the abdomen).

15. The nurse is caring for a child admitted with acute abdominal pain and possible appendicitis. What intervention is appropriate to relieve the abdominal discomfort during the evaluation?

- a. Place in the Trendelenburg position.
- b. Apply moist heat to the abdomen.
- c. Allow the child to assume a position of comfort.
- d. Administer a saline enema to cleanse the bowel.

ANS: C

The child should be allowed to take a position of comfort, usually with the legs flexed. The Trendelenburg position will not help with the discomfort. If appendicitis is a possibility, administering laxative or enemas or applying heat to the area is dangerous. Such measures stimulate bowel motility and increase the risk of perforation.

16. What statement is most descriptive of Meckel diverticulum?

- a. It is acquired during childhood.
- b. Intestinal bleeding may be mild or profuse.
- c. It occurs more frequently in females than in males.
- d. Medical interventions are usually sufficient to treat the problem.

ANS: B

Bloody stools are often a presenting sign of Meckel diverticulum. It is associated with mild to profuse intestinal bleeding. Meckel diverticulum is the most common congenital malformation of the gastrointestinal tract and is present in 1% to 4% of the general population. It is more common in males than in females. The standard therapy is surgical removal of the diverticulum.

17. One of the major differences in clinical presentation between Crohn disease (CD) and ulcerative colitis (UC) is that UC is more likely to cause which clinical manifestation?

- a. Pain
- b. Rectal bleeding
- c. Perianal lesions
- d. Growth retardation

ANS: B

Rectal bleeding is more common in UC than CD. Pain, perianal lesions, and growth retardation are common manifestations of CD.

18. Nutritional management of the child with Crohn disease includes a diet that has which component?

- a. High fiber
- b. Increased protein
- c. Reduced calories
- d. Herbal supplements

ANS: B

The child with Crohn disease often has growth failure. Nutritional support is planned to reduce ongoing losses and provide adequate energy and protein for healing. Fiber is mechanically hard to digest. Foods containing seeds may contribute to obstruction. A high-calorie diet is necessary to minimize growth failure. Herbal supplements should not be used unless discussed with the practitioner. Vitamin supplementation with folic acid, iron, and multivitamins is recommended.

19. What information should the nurse include when teaching an adolescent with Crohn disease (CD)?

- a. How to cope with stress and adjust to chronic illness
- b. Preparation for surgical treatment and cure of CD
- c. Nutritional guidance and prevention of constipation
- d. Prevention of spread of illness to others and principles of high-fiber diet

ANS: A

CD is a chronic illness with a variable course and many potential complications. Guidance about living with chronic illness is essential for adolescents. Stress management techniques can help with exacerbations and possible limitations caused by the illness. At this time, there is no cure for CD. Surgical intervention may be indicated for complications that cannot be controlled by medical and nutritional therapy. Nutritional guidance is an essential part of management. Constipation is not usually an issue with CD. CD is not infectious, so transmission is not a concern. A low-fiber diet is indicated.

20. A child with pyloric stenosis is having excessive vomiting. The nurse should assess for what potential complication?

- a. Hyperkalemia
- b. Hyperchloremia
- c. Metabolic acidosis
- d. Metabolic alkalosis

ANS: D

Infants with excessive vomiting are prone to metabolic alkalosis from the loss of hydrogen ions. Potassium and chloride ions are lost with vomiting. Metabolic alkalosis, not acidosis, is likely.

21. What term describes invagination of one segment of bowel within another?

- a. Atresia
- b. Stenosis
- c. Herniation
- d. Intussusception

ANS: D

Intussusception occurs when a proximal section of the bowel telescopes into a more distal segment, pulling the mesentery with it. The mesentery is compressed and angled, resulting in lymphatic and venous obstruction. Atresia is the absence or closure of a natural opening in the body. Stenosis is a narrowing or constriction of the diameter of a bodily passage or orifice. Herniation is the protrusion of an organ or part through connective tissue or through a wall of the cavity in which it is normally enclosed.

22. A school-age child with celiac disease asks for guidance about snacks that will not exacerbate the disease. What snack should the nurse suggest?

- a. Pizza
- b. Pretzels
- c. Popcorn
- d. Oatmeal cookies

ANS: C

Celiac disease symptoms result from ingestion of gluten. Corn and rice do not contain gluten. Popcorn or corn chips will not exacerbate the intestinal symptoms. Pizza and pretzels are usually made from wheat flour that contains gluten. Also, in the early stages of celiac disease, the child may be lactose intolerant. Oatmeal contains gluten.

23. An infant with short bowel syndrome is receiving total parenteral nutrition (TPN). The practitioner has added continuous enteral feedings through a gastrostomy tube. The nurse recognizes this as important for which reason?

- a. Wean the infant from TPN the next day
- b. Stimulate adaptation of the small intestine
- c. Give additional nutrients that cannot be included in the TPN
- d. Provide parents with hope that the child is close to discharge

ANS: B



Long-term survival without TPN depends on the small intestines ability to increase its absorptive capacity. Continuous enteral feedings facilitate the adaptation. TPN is indicated until the child is able to receive all nutrition via the enteral route. Before this is accomplished, the small intestine must adapt and increase in cell number and cell mass per villus column. TPN is formulated to meet the infants nutritional needs. Continuous enteral feedings through a gastrostomy tube is a positive sign, but the infants ability to tolerate increasing amounts of enteral nutrition is only one factor that determines readiness for discharge.

24. Melena, the passage of black, tarry stools, suggests bleeding from which source?

- a. The perianal or rectal area
- b. The upper gastrointestinal (GI) tract
- c. The lower GI tract
- d. Hemorrhoids or anal fissures

ANS: B

Melena is denatured blood from the upper GI tract or bleeding from the right colon. Blood from the perianal or rectal area, hemorrhoids, or lower GI tract would be bright red.

25. A child with acute gastrointestinal bleeding is admitted to the hospital. The nurse observes which sign or symptom as an early manifestation of shock?

- a. Restlessness
- b. Rapid capillary refill
- c. Increased temperature
- d. Increased blood pressure

ANS: A

Restlessness is an indication of impending shock in a child. Capillary refill is slowed in shock. The child will feel cool. The blood pressure initially remains within the normal range and then declines.

26. What signs or symptoms are most commonly associated with the prodromal phase of acute viral hepatitis?

- a. Bruising and lethargy
- b. Anorexia and malaise
- c. Fatigability and jaundice
- d. Dark urine and pale stools

ANS: B

The signs and symptoms most common in the prodromal phase are anorexia, malaise, lethargy, and easy fatigability. Bruising would not be an issue unless liver damage has occurred. Jaundice is a late sign and often does not occur in children. Dark urine and pale stools would occur during the onset of jaundice (icteric phase) if it occurs.

27. What immunization is recommended for all newborns?

- a. Hepatitis A vaccine
- b. Hepatitis B vaccine
- c. Hepatitis C vaccine

- 
- d. Hepatitis A, B, and C vaccines

ANS: B

Universal vaccination for hepatitis B is recommended for all newborns. Hepatitis A vaccine is recommended for infants starting at 12 months. No vaccine is currently available for hepatitis C.

28. The nurse is discussing home care with a mother whose 6-year-old child has hepatitis A.

What information should the nurse include?

- 
- a. Advise bed rest until 1 week after the icteric phase.
- 
- b. Teach infection control measures to family members.
- 
- c. Inform the mother that the child cannot return to school until 3 weeks after onset of jaundice.
- 
- d. Reassure the mother that hepatitis A cannot be transmitted to other family members.

ANS: B

Hand washing is the single most effective measure in preventing and controlling hepatitis.

Hepatitis A can be transmitted through the fecaloral route. Family members must be taught preventive measures. Rest and quiet activities are essential and adjusted to the child's condition, but bed rest is not necessary. The child is not infectious 1 week after the onset of jaundice and may return to school as activity level allows.

29. What therapeutic intervention provides the best chance of survival for a child with cirrhosis?

- 
- a. Nutritional support
- 
- b. Liver transplantation
- 
- c. Blood component therapy
- 
- d. Treatment with corticosteroids

ANS: B

The only successful treatment for end-stage liver disease and liver failure may be liver transplantation, which has improved the prognosis for many children with cirrhosis. Liver transplantation reflects the failure of other medical and surgical measures to prevent or treat cirrhosis. Nutritional support is necessary for the child with cirrhosis, but it does not stop the progression of the disease. Blood components are indicated when the liver can no longer produce clotting factors. It is supportive therapy, not curative. Corticosteroids are not used in end-stage liver disease.

30. The nurse observes that a newborn is having problems after birth. What should indicate a tracheoesophageal fistula?

- 
- a. Jitteriness
- 
- b. Meconium ileus
- 
- c. Excessive frothy saliva
- 
- d. Increased need for sleep

ANS: C

Excessive frothy saliva is indicative of a tracheoesophageal fistula. The child is unable to swallow the secretions, so there are excessive amounts of saliva in the mouth. Jitteriness is associated with several disorders, including electrolyte imbalances. Meconium ileus is associated with cystic fibrosis. Increased need for sleep is not associated with a tracheoesophageal fistula.

31. The nurse is caring for a neonate with a suspected tracheoesophageal fistula. What should nursing care include?

- a. Feed glucose water only.
- b. Elevate the patients head for feedings.
- c. Raise the patients head and give nothing by mouth.
- d. Avoid suctioning unless the infant is cyanotic.

ANS: C

When a newborn is suspected of having a tracheoesophageal fistula, the most desirable position is supine with the head elevated on an inclined plane of at least 30 degrees. It is imperative that any source of aspiration be removed at once; oral feedings are withheld. The oral pharynx should be kept clear of secretions by oral suctioning. This is to prevent the cyanosis that is usually the result of laryngospasm caused by overflow of saliva into the larynx.

32. The nurse is caring for an infant who had surgical repair of a tracheoesophageal fistula 24 hours ago. Gastrostomy feedings have not been started. What do nursing actions related to the gastrostomy tube include?

- a. Keep the tube clamped.
- b. Suction the tube as needed.
- c. Leave the tube open to gravity drainage.
- d. Lower the tube to a point below the level of the stomach.

ANS: C

In the immediate postoperative period, the gastrostomy tube is open to gravity drainage. This usually is continued until the infant is able to tolerate feedings. The tube is unclamped in the postoperative period to allow for the drainage of secretions and air. Gastrostomy tubes are not suctioned on an as-needed basis. They may be connected to low suction to facilitate drainage of secretions. Lowering the tube to a point below the level of the stomach would create too much pressure.

33. What should preoperative care of a newborn with an anorectal malformation include?

- a. Frequent suctioning
- b. Gastrointestinal decompression
- c. Feedings with sterile water only
- d. Supine position with head elevated

ANS: B

Gastrointestinal decompression is an essential part of nursing care for a newborn with an anorectal malformation. This helps alleviate intraabdominal pressure until surgical intervention. Suctioning is not necessary for an infant with this type of anomaly. Feedings are not indicated until it is determined that the gastrointestinal tract is intact. Supine position with head elevated is indicated for infants with a tracheoesophageal fistula, not anorectal malformations.

34. A child who has just had definitive repair of a high rectal malformation is to be discharged. What should the nurse address in the discharge preparation of this family?

- a. Safe administration of daily enemas
- b. Necessity of firm stools to keep suture line clean

- c. Bowel training beginning as soon as the child returns home
- d. Changes in stooling patterns to report to the practitioner

ANS: D

The parents are taught to notify the practitioner if any signs of an anal stricture or other complications develop. Constipation is avoided because a firm stool will place strain on the suture line. Daily enemas are contraindicated after surgical repair of a rectal malformation. Fiber and stool softeners are often given to keep stools soft and avoid tension on the suture line. The child needs to recover from the surgical procedure. Then bowel training may begin, depending on the child's developmental and physiologic readiness.

35. The parents of a newborn with an umbilical hernia ask about treatment options. The nurse's response should be based on which knowledge?

- a. Surgery is recommended as soon as possible.
- b. The defect usually resolves spontaneously by 3 to 5 years of age.
- c. Aggressive treatment is necessary to reduce its high mortality.
- d. Taping the abdomen to flatten the protrusion is sometimes helpful.

ANS: B

The umbilical hernia usually resolves by ages 3 to 5 years of age without intervention. Umbilical hernias rarely become problematic. Incarceration, where the hernia is constricted and cannot be reduced manually, is rare. Umbilical hernias are not associated with a high mortality rate. Taping the abdomen flat does not help heal the hernia; it can cause skin irritation.

## Chapter 24: Alterations in Genitourinary Function

### MULTIPLE CHOICE

1. Urinary tract anomalies are frequently associated with what irregularities in fetal development?

- a. Myelomeningocele
- b. Cardiovascular anomalies
- c. Malformed or low-set ears
- d. Defects in lower extremities

ANS: C

Although unexplained, there is a frequent association between malformed or low-set ears and urinary tract anomalies. During the newborn examination, the nurse should have a high suspicion about urinary tract structure and function if ear anomalies are present. Children who have myelomeningocele may have impaired urinary tract function secondary to the neural defect. When other congenital defects are present, there is an increased likelihood of other issues with other body systems. Cardiac and extremity defects do not have a strong association with renal anomalies.

2. What urine test result is considered abnormal?

- a. pH 4.0

- b. WBC 1 or 2 cells/ml
- c. Protein level absent
- d. Specific gravity 1.020

ANS: A

The expected pH ranges from 4.8 to 7.8. A pH of 4.0 can be indicative of urinary tract infection or metabolic alkalosis or acidosis. Less than 1 or 2 white blood cells per milliliter is the expected range. The absence of protein is expected. The presence of protein can be indicative of glomerular disease. A specific gravity of 1.020 is within the anticipated range of 1.001 to 1.030. Specific gravity reflects level of hydration in addition to renal disorders and hormonal control such as antidiuretic hormone.

3. What diagnostic test allows visualization of renal parenchyma and renal pelvis without exposure to external-beam radiation or radioactive isotopes?

- a. Renal ultrasonography
- b. Computed tomography
- c. Intravenous pyelography
- d. Voiding cystourethrography

ANS: A

The transmission of ultrasonic waves through the renal parenchyma allows visualization of the renal parenchyma and renal pelvis without exposure to external-beam radiation or radioactive isotopes. Computed tomography uses external radiation, and sometimes contrast media are used. Intravenous pyelography uses contrast medium and external radiation for radiography. Contrast medium is injected into the bladder through the urethral opening. External radiation for radiography is used before, during, and after voiding in voiding cystourethrography.

4. What name is given to inflammation of the bladder?

- a. Cystitis
- b. Urethritis
- c. Urosepsis
- d. Bacteriuria

ANS: A

Cystitis is an inflammation of the bladder. Urethritis is an inflammation of the urethra. Urosepsis is a febrile urinary tract infection with systemic signs of bacterial infection. Bacteriuria is the presence of bacteria in the urine.

5. The nurse is teaching a client to prevent future urinary tract infections (UTIs). What factor is most important to emphasize as the potential cause?

- a. Poor hygiene
- b. Constipation
- c. Urinary stasis
- d. Congenital anomalies

ANS: C

Urinary stasis is the single most important host factor that influences the development of UTIs. Urine is usually sterile but at body temperature provides an excellent growth medium for bacteria. Poor hygiene can be a contributing cause, especially in females because their short urethras predispose them to UTIs. Urinary stasis then provides a growth medium for the bacteria. Intermittent constipation contributes to urinary stasis. A full rectum displaces the bladder and posterior urethra in the fixed and limited space of the bony pelvis, causing obstruction, incomplete micturition, and urinary stasis. Congenital anomalies can contribute to UTIs, but urinary stasis is the primary factor in many cases.

6. A girl, age 5 1/2 years, has been sent to the school nurse for urinary incontinence three times in the past 2 days. The nurse should recommend to her parent that the first action is to have the child evaluated for what condition?

- a. School phobia
- b. Glomerulonephritis
- c. Urinary tract infection (UTI)
- d. Attention deficit hyperactivity disorder (ADHD)

ANS: C

Girls between the ages of 2 and 6 years are considered high risk for UTIs. This child is showing signs of a UTI, including incontinence in a toilet-trained child and possible urinary frequency or urgency. A physiologic cause should be ruled out before psychosocial factors are investigated. Glomerulonephritis usually manifests with decreased urinary output and fluid retention. ADHD can contribute to urinary incontinence because the child is distracted, but the first manifestation was incontinence, not distractibility.

7. What recommendation should the nurse make to prevent urinary tract infections (UTIs) in young girls?

- a. Avoid public toilet facilities.
- b. Limit long baths as much as possible.
- c. Cleanse the perineum with water after voiding.
- d. Ensure clear liquid intake of 2 L/day.

ANS: D

Adequate fluid intake minimizes urinary stasis. The recommended fluid intake is 50 ml/kg or 100 ml/lb per day. The average 5- to 6-year-old weighs approximately 18 kg (40 lb), so she should drink 2 L/day of fluid. There is no evidence that using public toilet facilities increases UTIs. Long baths are not associated with increased UTIs. Proper hand washing and perineal cleansing are important, but no evidence exists that these decrease UTIs in young girls.

TOP: Integrated Process: Teaching/Learning

MSC: Client Needs: Physiological Integrity

8. In teaching the parent of a newly diagnosed 2-year-old child with pyelonephritis related to vesicoureteral reflux (VUR), the nurse should include which information?

- a. Limit fluids to reduce reflux.
- b. Give cranberry juice twice a day.
- c. Have siblings examined for VUR.
- d. Surgery is indicated to reverse scarring.

ANS: C

Siblings are at high risk for VUR. The incidence of reflux in siblings is approximately 36%. The other children should be screened for early detection and to potentially reduce scarring. Fluids are not reduced. The efficacy of cranberry juice in reducing infection in children has not been established. Surgery may be necessary for higher grades of VUR, but the scarring is not reversible.

9. What pathologic process is believed to be responsible for the development of postinfectious glomerulonephritis?

- a. Infarction of renal vessels
- b. Immune complex formation and glomerular deposition
- c. Bacterial endotoxin deposition on and destruction of glomeruli
- d. Embolization of glomeruli by bacteria and fibrin from endocardial vegetation

ANS: B

After a streptococcal infection, antibodies are formed, and immune-complex reaction occurs. The immune complexes are trapped in the glomerular capillary loop. Infarction of renal vessels occurs in renal involvement in sickle cell disease. Bacterial endotoxin deposition on and destruction of glomeruli is not a mechanism for postinfectious glomerulonephritis. Embolization of glomeruli by bacteria and fibrin from endocardial vegetation is the pathology of renal involvement with bacterial endocarditis.

10. The nurse notes that a child has lost 3.6 kg (8 lb) after 4 days of hospitalization for acute glomerulonephritis. What is the most likely cause of this weight loss?

- a. Poor appetite
- b. Reduction of edema
- c. Restriction to bed rest
- d. Increased potassium intake

ANS: B

This amount of weight loss in this period is a result of the improvement of renal function and mobilization of edema fluid. Poor appetite and bed rest would not result in a weight loss of 8 lb in 4 days. Foods with substantial amounts of potassium are avoided until renal function is normalized.

11. What measure of fluid balance status is most useful in a child with acute glomerulonephritis?

- a. Proteinuria
- b. Daily weight
- c. Specific gravity
- d. Intake and output

ANS: B

A record of daily weight is the most useful means to assess fluid balance and should be kept for children treated at home or in the hospital. Proteinuria does not provide information about fluid balance. Specific gravity does not accurately reflect fluid balance in acute glomerulonephritis. If fluid is being retained, the excess fluid will not be included. Also proteinuria and hematuria

affect specific gravity. Intake and output can be useful but are not considered as accurate as daily weights. In children who are not toilet trained, measuring output is more difficult.

12. The parent of a child hospitalized with acute glomerulonephritis asks the nurse why blood pressure readings are being taken so often. What knowledge should influence the nurses reply?

- a. The antibiotic therapy contributes to labile blood pressure values.
- b. Hypotension leading to sudden shock can develop at any time.
- c. Acute hypertension is a concern that requires monitoring.
- d. Blood pressure fluctuations indicate that the condition has become chronic.

ANS: C

Blood pressure monitoring is essential to identify acute hypertension, which is treated aggressively. Antibiotic therapy is usually not indicated for glomerulonephritis. Hypertension, not hypotension, is a concern in glomerulonephritis. Blood pressure control is essential to prevent further renal damage. Blood pressure fluctuations do not provide information about the chronicity of the disease.

13. What laboratory finding, in conjunction with the presenting symptoms, indicates minimal change nephrotic syndrome?

- a. Low specific gravity
- b. Decreased hemoglobin
- c. Normal platelet count
- d. Reduced serum albumin

ANS: D

Total serum protein concentrations are reduced, with the albumin fractions significantly reduced. Specific gravity is high and proportionate to the amount of protein in the urine. Hemoglobin and hematocrit are usually normal or elevated. The platelet count is elevated as a result of hemoconcentration.

TOP: Nursing Process: Assessment MSC: Client Needs: Physiological Integrity

14. What is the primary objective of care for the child with minimal change nephrotic syndrome (MCNS)?

- a. Reduce blood pressure.
- b. Lower serum protein levels.
- c. Minimize excretion of urinary protein.
- d. Increase the ability of tissue to retain fluid.

ANS: C

The objectives of therapy for the child with MCNS include reducing the excretion of urinary protein, reducing fluid retention, preventing infection, and minimizing complications associated with therapy. Blood pressure is usually not elevated in minimal change nephrotic syndrome. Serum protein levels are already reduced as part of the disease process. This needs to be reversed. The tissue is already retaining fluid as part of the edema. The goal of therapy is to reduce edema.

15. A hospitalized child with minimal change nephrotic syndrome is receiving high doses of prednisone. What nursing goal is appropriate for this child?



- a. Stimulate appetite.
- b. Detect evidence of edema.
- c. Minimize risk of infection.
- d. Promote adherence to the antibiotic regimen.

ANS: C

High-dose steroid therapy has an immunosuppressant effect. These children are particularly vulnerable to upper respiratory tract infections. A priority nursing goal is to minimize the risk of infection by protecting the child from contact with infectious individuals. Appetite is increased with prednisone therapy. The amount of edema should be monitored as part of the disease process, not necessarily related to the administration of prednisone. Antibiotics would not be used as prophylaxis.

16. The nurse is teaching a child experiencing severe edema associated with minimal change nephrotic syndrome about his diet. The nurse should discuss what dietary need?

- a. Consuming a regular diet
- b. Increasing protein
- c. Restricting fluids
- d. Decreasing calories

ANS: C

During the edematous stage of active nephrosis, the child has restricted fluid and sodium intake. As the edema subsides, the child is placed on a diet with increased salt and fluids. A regular diet is not indicated. There is no evidence that a diet high in protein is beneficial or has an effect on the course of the disease. Calories sufficient for growth and tissue healing are essential. With the child having little appetite and the fluid and salt restrictions, achieving adequate nutrition is difficult.

MSC: Client Needs: Physiological Integrity

17. A child is admitted for minimal change nephrotic syndrome (MCNS). The nurse recognizes that the child's prognosis is related to what factor?

- a. Admission blood pressure
- b. Creatinine clearance
- c. Amount of protein in urine
- d. Response to steroid therapy

ANS: D

Corticosteroids are the drugs of choice for MCNS. If the child has not responded to therapy within 28 days of daily steroid administration, the likelihood of subsequent response decreases. Blood pressure is normal or low in MCNS. It is not correlated with prognosis. Creatinine clearance is not correlated with prognosis. The presence of significant proteinuria is used for diagnosis. It is not predictive of prognosis.

18. A 12-year-old child is injured in a bicycle accident. When considering the possibility of renal trauma, the nurse should consider what factor?

- a. Flank pain rarely occurs in children with renal injuries.
- b. Few nonpenetrating injuries cause renal trauma in children.

- c. Kidneys are immobile, well protected, and rarely injured in children.
- d. The amount of hematuria is not a reliable indicator of the seriousness of renal injury.

ANS: D

Hematuria is consistently present with renal trauma. It does not provide a reliable indicator of the seriousness of the renal injury. Flank pain results from bleeding around the kidney. Most injuries that cause renal trauma in children are of the nonpenetrating or blunt type and usually involve falls, athletic injuries, and motor vehicle accidents. In children, the kidneys are more mobile, and the outer borders are less protected than in adults.

19. What condition is the most common cause of acute renal failure in children?

- a. Pyelonephritis
- b. Tubular destruction
- c. Severe dehydration
- d. Upper tract obstruction

ANS: C

The most common cause of acute renal failure in children is dehydration or other causes of poor perfusion that may respond to restoration of fluid volume. Pyelonephritis and tubular destruction are not common causes of acute renal failure. Obstructive uropathy may cause acute renal failure, but it is not the most common cause.

20. A child is admitted in acute renal failure (ARF). Therapeutic management to rapidly provoke a flow of urine includes the administration of what medication?

- a. Propranolol (Inderal)
- b. Calcium gluconate
- c. Mannitol (Osmitol) or furosemide (Lasix) (or both)
- d. Sodium, chloride, and potassium

ANS: C

In ARF, if hydration is adequate, mannitol or furosemide (or both) is administered to provoke a flow of urine. If glomerular function is intact, an osmotic diuresis will occur. Propranolol is a beta-blocker; it will not produce a rapid flow of urine in ARF. Calcium gluconate is administered for its protective cardiac effect when hyperkalemia exists. It does not affect diuresis. Electrolyte measurements must be done before administration of sodium, chloride, or potassium. These substances are not given unless there are other large, ongoing losses. In the absence of urine production, potassium levels may be elevated, and additional potassium can cause cardiac dysrhythmias.

21. What major complication is associated with a child with chronic renal failure?

- a. Hypokalemia
- b. Metabolic alkalosis
- c. Water and sodium retention
- d. Excessive excretion of blood urea nitrogen

ANS: C

Chronic renal failure leads to water and sodium retention, which contributes to edema and vascular congestion. Hyperkalemia, metabolic acidosis, and retention of blood urea nitrogen are complications of chronic renal failure.

22. What diet is most appropriate for the child with chronic renal failure (CRF)?

- a. Low in protein
- b. Low in vitamin D
- c. Low in phosphorus
- d. Supplemented with vitamins A, E, and K

ANS: C

Dietary phosphorus may need to be restricted by limiting protein and milk intake. Substances that bind phosphorus are given with meals to prevent its absorption, which enables a more liberal intake of phosphorus-containing protein. Protein is limited to the recommended daily allowance for the child's age. Further restriction is thought to negatively affect growth and neurodevelopment. Vitamin D therapy is administered in children with CRF to increase calcium absorption. Supplementation of vitamins A, E, and K, beyond normal dietary intake, is not advised in children with CRF. These fat-soluble vitamins can accumulate.

23. What nursing consideration is most important when caring for a child with end-stage renal disease (ESRD)?

- a. Children with ESRD usually adapt well to minor inconveniences of treatment.
- b. Children with ESRD require extensive support until they outgrow the condition.
- c. Multiple stresses are placed on children with ESRD and their families until the illness is cured.
- d. Multiple stresses are placed on children with ESRD and their families because children's lives are maintained by drugs and artificial means.

ANS: D

Stressors on the family are often overwhelming because of the progressive deterioration. The child progresses from renal insufficiency to uremia to dialysis and transplantation, each of which requires intensive therapy and supportive care. The treatment of ESRD is intense and requires multiple examinations, dietary restrictions, and medications. Adherence to the regimen is often difficult for children and families because of the progressive nature of the renal failure. ESRD has an unrelenting course that has no known cure. Children do not outgrow the renal failure.

24. The nurse is caring for an adolescent who has just started dialysis. The child always seems angry, hostile, or depressed. The nurse should recognize that this is most likely related to what underlying cause?

- a. Physiologic manifestations of renal disease
- b. The fact that adolescents have few coping mechanisms
- c. Neurologic manifestations that occur with dialysis
- d. Resentment of the control and enforced dependence imposed by dialysis

ANS: D

Older children and adolescents need to feel in control. Dialysis forces the adolescent into a dependent relationship, which results in these behaviors. Being angry, hostile, or depressed are functions of the age of the child, not neurologic or physiologic manifestations of the dialysis.

25. What statement is an advantage of peritoneal dialysis compared with hemodialysis?

- a. Protein loss is less extensive.
- b. Dietary limitations are not necessary.
- c. It is easy to learn and safe to perform.
- d. It is needed less frequently than hemodialysis.

ANS: C

Peritoneal dialysis is the preferred form of dialysis for parents, infants, and children who wish to remain independent. Parents and older children can perform the treatments themselves. Protein loss is not significantly different. The dietary limitations are necessary, but they are not as stringent as those for hemodialysis. Treatments are needed more frequently but can be done at home.

26. What statement is descriptive of renal transplantation in children?

- a. It is an acceptable means of treatment after age 10 years.
- b. Children can receive kidneys only from other children.
- c. It is the preferred means of renal replacement therapy in children.
- d. The decision for transplantation is difficult because a relatively normal lifestyle is not possible.

ANS: C

Renal transplantation offers the opportunity for a relatively normal life and is the preferred means of renal replacement therapy in end-stage renal disease. It can be done in children as young as age 6 months. Both children and adults can serve as donors for renal transplant purposes. Renal transplantation affords the child a more normal lifestyle than dependence on dialysis.

27. The nurse is conducting discharge teaching with the parent of a 7-year-old child with minimal change nephrotic syndrome (MCNS). What statement by the parent indicates a correct understanding of the teaching?

- a. My child needs to stay home from school for at least 1 more month.
- b. I should not add additional salt to any of my child's meals.
- c. My child will not be able to participate in contact sports while receiving corticosteroid therapy.
- d. I should measure my child's urine after each void and report the 24-hour amount to the health care provider.

ANS: B

Children with MCNS can be treated at home after the initial phase with appropriate discharge instructions, including a salt restriction of no additional salt to the child's meals. The child may return to school but should avoid exposure to infected playmates. Participation in contact sports is not affected by corticosteroid therapy. The parent does not need to measure the child's urine on a daily basis but may be instructed to test for albumin.

28. What is the narrowing of preputial opening of foreskin called?

- a. Chordee
- b. Phimosis

- c. Epispadias
- d. Hypospadias

ANS: B

Phimosis is the narrowing or stenosis of the preputial opening of the foreskin. Chordee is the ventral curvature of the penis. Epispadias is the meatal opening on the dorsal surface of the penis. Hypospadias is a congenital condition in which the urethral opening is located anywhere along the ventral surface of the penis.

29. Identification and treatment of cryptorchid testes should be done by age 2 years. What is an important consideration?

- a. Medical therapy is not effective after this age.
- b. Treatment is necessary to maintain the ability to be fertile when older.
- c. The younger child can tolerate the extensive surgery needed.
- d. Sexual reassignment may be necessary if treatment is not successful.

ANS: B

The longer the testis is exposed to higher body heat, the greater the likelihood of damage. To preserve fertility, surgery should be done at an early age. Surgical intervention is the treatment of choice. Simple orchiopexy is usually performed as an outpatient procedure. The surgical procedure restores the testes to the scrotum. This helps the boy to have both testes in the scrotum by school age. Sexual reassignment is not indicated when the testes are not descended.

30. Congenital defects of the genitourinary tract, such as hypospadias, are usually repaired as early as possible to accomplish what?

- a. Minimize separation anxiety.
- b. Prevent urinary complications.
- c. Increase acceptance of hospitalization.
- d. Promote development of normal body image.

ANS: D

Promoting development of normal body image is extremely important. Surgery involving sexual organs can be upsetting to children, especially preschoolers, who fear mutilation and castration. Proper preprocedure preparation can facilitate coping with these issues. Preventing urinary complications is important for defects that affect function, but for all external defects, repair should be done as soon as possible.

31. The parents of a 2-year-old boy who had a repair of exstrophy of the bladder at birth ask when they can begin toilet training their son. The nurse replies based on what knowledge?

- a. Most boys in the United States can be toilet trained at age 3 years.
- b. Training can begin when he has sufficient bladder capacity.
- c. Additional surgery may be necessary to achieve continence.
- d. They should begin now because he will require additional time.

ANS: C

After repair of the bladder exstrophy, the child's bladder is allowed to increase capacity. Several surgical procedures may be necessary to create a urethral sphincter mechanism to aid in urination and ejaculation. With the lack of a urinary sphincter, toilet training is unlikely. The child cannot

hold the urine in the bladder. Bladder capacity is one component of continence. A functional sphincter is also needed.

32. An infant has been diagnosed with bladder obstruction. What do symptoms of this disorder include?

- a. Renal colic
- b. Strong urinary stream
- c. Urinary tract infections
- d. Posturination dribbling

ANS: D

Symptoms of bladder obstruction include poor force of urinary stream, intermittency of voided stream, feelings of incomplete bladder emptying, and posturination dribbling. They may also include urinary frequency, nocturia, nocturnal enuresis, and urgency. Renal colic is a symptom of upper urinary tract obstruction. Children with bladder obstruction have a weak urinary stream. Urinary tract infections are not associated with bladder obstruction.

33. The parents of a child born with ambiguous genitalia tell the nurse that family and friends are asking what caused the baby to be this way. Tests are being done to assist in gender assignment. What should the nurses intervention include?

- a. Explain the disorder so they can explain it to others.
- b. Help parents understand that this is a minor problem.
- c. Suggest that parents avoid family and friends until the gender is assigned.
- d. Encourage parents not to worry while the tests are being done.

ANS: A

Explaining the disorder to parents so they can explain it to others is the most therapeutic approach while the parents await the gender assignment of their child. Ambiguous genitalia is a serious issue for the family. Careful testing and evaluation are necessary to aid in gender assignment to avoid lifelong problems for the child. Suggesting that parents avoid family and friends until the gender is assigned is impractical and would isolate the family from their support system while awaiting test results. The parents will be concerned. Telling them not to worry without giving them specific alternative actions would not be effective.

34. Parents of a newborn with ambiguous genitalia want to know how long they will have to wait to know whether they have a boy or a girl. The nurse answers the parents based on what knowledge?

- a. Chromosome analysis will be complete in 7 days.
- b. A physical examination will be able to provide a definitive answer.
- c. Additional laboratory testing is necessary to assign the correct gender.
- d. Gender assignment involves collaboration between the parents and a multidisciplinary team.

ANS: D

Gender assignment is a complex decision-making process. Endocrine, genetic, social, psychologic, and ethical elements of sex assignment have been integrated into the process. Parent participation is included. The goal is to enable the affected child to grow into a well-adjusted, psychosocially stable person. Chromosome analysis usually takes 2 or 3 days. A

physical examination reveals ambiguous genitalia, but additional testing is necessary. A correct gender may not be identifiable.

35. Surgery is performed on a child to correct cryptorchidism. The parents understand the reason for the surgery if they tell the nurse this was done to do what?

- a. Prevent damage to the undescended testicle.
- b. Prevent urinary tract infections.
- c. Prevent prostate cancer.
- d. Prevent an inguinal hernia.

ANS: A

If the testes do not descend spontaneously, orchiopexy is performed before the child's second birthday, preferably between 1 and 2 years of age. Surgical repair is done to (1) prevent damage to the undescended testicle by exposure to the higher degree of body heat in the undescended location, thus maintaining future fertility; (2) decrease the incidence of malignancy formation, which is higher in undescended testicles; (3) avoid trauma and torsion; (4) close the processus vaginalis; and (5) prevent the cosmetic and psychologic disability of an empty scrotum. Parents understand the teaching if they respond the surgery is done to prevent damage.

## Chapter 25: Alterations in Hematological Function

### MULTIPLE CHOICE

1. The regulation of red blood cell (RBC) production is thought to be controlled by which physiologic factor?

- a. Hemoglobin
- b. Tissue hypoxia
- c. Reticulocyte count
- d. Number of RBCs

ANS: B

Hemoglobin does not directly control RBC production. If there is insufficient hemoglobin to adequately oxygenate the tissue, then erythropoietin may be released. When tissue hypoxia occurs, the kidneys release erythropoietin into the bloodstream. This stimulates the marrow to produce new RBCs. Reticulocytes are immature RBCs. The retic count can be used to monitor hematopoiesis. The number of RBCs does not directly control production. In congenital cardiac disorders with mixed blood flow or decreased pulmonary blood flow, RBC production continues secondary to tissue hypoxia.

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2. What physiologic defect is responsible for causing anemia?

- a. Increased blood viscosity
- b. Depressed hematopoietic system
- c. Presence of abnormal hemoglobin
- d. Decreased oxygen-carrying capacity of blood

ANS: D

Anemia is a condition in which the number of red blood cells or hemoglobin concentration is reduced below the normal values for age. This results in a decreased oxygen-carrying capacity of blood. Increased blood viscosity is usually a function of too many cells or of dehydration, not of anemia. A depressed hematopoietic system or abnormal hemoglobin can contribute to anemia, but the definition depends on the decreased oxygen-carrying capacity of the blood.

3. A mother states that she brought her child to the clinic because the 3-year-old girl was not keeping up with her siblings. During physical assessment, the nurse notes that the child has pale skin and conjunctiva and has muscle weakness. The hemoglobin on admission is 6.4 g/dl. After notifying the practitioner of the results, what nursing priority intervention should occur next?

- a. Reduce environmental stimulation to prevent seizures.
- b. Have the laboratory repeat the analysis with a new specimen.
- c. Minimize energy expenditure to decrease cardiac workload.
- d. Administer intravenous fluids to correct the dehydration.

ANS: C

The child has a critically low hemoglobin value. The expected range is 11.5 to 15.5 g/dl. When the oxygen-carrying capacity of the blood decreases slowly, the child is able to compensate by increasing cardiac output. With the increasing workload of the heart, additional stress can lead to cardiac failure. Reduction of environmental stimulation can help minimize energy expenditure, but seizures are not a risk. A repeat hemoglobin analysis is not necessary. The child does not have evidence of dehydration. If intravenous fluids are given, they can further dilute the circulating blood volume and increase the strain on the heart.

TOP: Nursing Process: Assessment MSC: Client Needs: Physiological Integrity

4. A child with severe anemia requires a unit of red blood cells (RBCs). The nurse explains to the child that the transfusion is necessary for which reason?

- a. Allow her parents to come visit her.
- b. Fight the infection that she now has.
- c. Increase her energy so she will not be so tired.
- d. Help her body stop bleeding by forming a clot (scab).

ANS: C

The indication for RBC transfusion is risk of cardiac decompensation. When the number of circulating RBCs is increased, tissue hypoxia decreases, cardiac function is improved, and the child will have more energy. Parental visiting is not dependent on transfusion. The decrease in tissue hypoxia will minimize the risk of infection. There is no evidence that the child is currently infected. Forming a clot is the function of platelets.

5. An 8-year-old girl is receiving a blood transfusion when the nurse notes that she has developed precordial pain, dyspnea, distended neck veins, slight cyanosis, and a dry cough.

These manifestations are most suggestive of what complication?

- a. Air embolism
- b. Allergic reaction
- c. Hemolytic reaction
- d. Circulatory overload



ANS: D

The signs of circulatory overload include distended neck veins, hypertension, crackles, a dry cough, cyanosis, and precordial pain. Signs of air embolism are sudden difficulty breathing, sharp pain in the chest, and apprehension. Urticaria, pruritus, flushing, asthmatic wheezing, and laryngeal edema are signs and symptoms of allergic reactions. Hemolytic reactions are characterized by chills, shaking, fever, pain at infusion site, nausea, vomiting, tightness in chest, flank pain, red or black urine, and progressive signs of shock and renal failure.

6. What explanation provides the rationale for why iron-deficiency anemia is common during infancy?

- a. Cows milk is a poor source of iron.
- b. Iron cannot be stored during fetal development.
- c. Fetal iron stores are depleted by 1 month of age.
- d. Dietary iron cannot be started until 12 months of age.

ANS: A

Children between the ages of 12 and 36 months are at risk for anemia because cows milk is a major component of their diet, and it is a poor source of iron. Iron is stored during fetal development, but the amount stored depends on maternal iron stores. Fetal iron stores are usually depleted by ages 5 to 6 months. Dietary iron can be introduced by breastfeeding, iron-fortified formula, and cereals during the first 12 months of life.

7. What statement best describes iron deficiency anemia in infants?

- a. It is caused by depression of the hematopoietic system.
- b. Diagnosis is easily made because of the infants emaciated appearance.
- c. It results from a decreased intake of milk and the premature addition of solid foods.
- d. Clinical manifestations are related to a reduction in the amount of oxygen available to tissues.

ANS: D

In iron-deficiency anemia, the child's clinical appearance is a result of the anemia, not the underlying cause. Usually the hematopoietic system is not depressed. The bone marrow produces red blood cells that are smaller and contain less hemoglobin than normal red blood cells. Children who have iron deficiency from drinking excessive quantities of milk are usually pale and overweight. They are receiving sufficient calories but are deficient in essential nutrients. The clinical manifestations result from decreased intake of iron-fortified solid foods and an excessive intake of milk.

8. What information should the nurse include when teaching the mother of a 9-month-old infant about administering liquid iron preparations?

- a. Give with meals.
- b. Stop immediately if nausea and vomiting occur.
- c. Adequate dosage will turn the stools a tarry green color.
- d. Allow preparation to mix with saliva and bathe the teeth before swallowing.

ANS: C

The nurse should prepare the mother for the anticipated change in the child's stools. If the iron dose is adequate, the stools will become a tarry green color. A lack of color change may indicate insufficient iron. The iron should be given in two divided doses between meals when the

presence of free hydrochloric acid is greatest. Iron is absorbed best in an acidic environment. Vomiting and diarrhea may occur with iron administration. If these occur, the iron should be given with meals, and the dosage reduced and gradually increased as the child develops tolerance. Liquid preparations of iron stain the teeth; they should be administered through a straw and the mouth rinsed after administration.

9. Therapeutic management of a 6-year-old child with hereditary spherocytosis (HS) should include which therapeutic intervention?

- a. Perform a splenectomy.
- b. Supplement the diet with calcium.
- c. Institute a maintenance transfusion program.
- d. Increase intake of iron-rich foods such as meat.

ANS: A

Splenectomy corrects the hemolysis that occurs in HS. The splenectomy is generally reserved for children older than age 5 years with symptomatic anemia. Supplementation with calcium does not affect the HS. Additional folic acid can prevent deficiency caused by the rapid cell turnover. A maintenance transfusion program suppresses red blood cell formation. At this time, the risks of transfusion are greater than those of a splenectomy. Iron supplementation does not influence the course of HS.

10. What condition occurs when the normal adult hemoglobin is partly or completely replaced by abnormal hemoglobin?

- a. Aplastic anemia
- b. Sickle cell anemia
- c. Thalassemia major
- d. Iron deficiency anemia

ANS: B

Sickle cell anemia is one of a group of diseases collectively called hemoglobinopathies, in which normal adult hemoglobin is replaced by abnormal hemoglobin. Aplastic anemia is a lack of cellular elements being produced. Thalassemia major refers to a variety of inherited disorders characterized by deficiencies in production of certain globulin chains. Iron-deficiency anemia affects red blood cell size and depth of color but does not involve abnormal hemoglobin.

11. The parents of a child with sickle cell anemia (SCA) are concerned about subsequent children having the disease. What statement most accurately reflects inheritance of SCA?

- a. SCA is not inherited.
- b. All siblings will have SCA.
- c. Each sibling has a 25% chance of having SCA.
- d. There is a 50% chance of siblings having SCA.

ANS: C

SCA is inherited as an autosomal recessive disorder. In this inheritance pattern, each child born to these parents has a 25% chance of having the disorder, a 25% chance of having neither SCA nor the trait, and a 50% chance of being heterozygous for SCA (sickle cell trait). SCA is an inherited hemoglobinopathy.

12. The clinical manifestations of sickle cell anemia (SCA) are primarily the result of which physiologic alteration?

- a. Decreased blood viscosity
- b. Deficiency in coagulation
- c. Increased red blood cell (RBC) destruction
- d. Greater affinity for oxygen

ANS: C

The clinical features of SCA are primarily the result of increased RBC destruction and obstruction caused by the sickle-shaped RBCs. When the sickle cells change shape, they increase the viscosity in the area where they are involved in the microcirculation. SCA does not have a coagulation deficit. Sickled red cells have decreased oxygen-carrying capacity and transform into the sickle shape in conditions of low oxygen tension.

13. A school-age child is admitted in vasoocclusive sickle cell crisis (pain episode). The child's care should include which therapeutic interventions?

- a. Hydration and pain management
- b. Oxygenation and factor VIII replacement
- c. Electrolyte replacement and administration of heparin
- d. Correction of alkalosis and reduction of energy expenditure

ANS: A

The management of crises includes adequate hydration, pain management, minimization of energy expenditures, electrolyte replacement, and blood component therapy if indicated. Factor VIII is not indicated in the treatment of vasoocclusive sickle cell crisis. Oxygen may prevent further sickling, but it is not effective in reversing sickling because it cannot reach the clogged blood vessels. Also, prolonged oxygen can reduce bone marrow activity. Heparin is not indicated in the treatment of vasoocclusive sickle cell crisis. Electrolyte replacement should accompany hydration. The acidosis will be corrected as the crisis is treated. Energy expenditure should be minimized to improve oxygen utilization. Acidosis, not alkalosis, results from hypoxia, which also promotes sickling.

14. A child with sickle cell anemia (SCA) develops severe chest and back pain, fever, a cough, and dyspnea. What should be the first action by the nurse?

- a. Administer 100% oxygen to relieve hypoxia.
- b. Notify the practitioner because chest syndrome is suspected.
- c. Infuse intravenous antibiotics as soon as cultures are obtained.
- d. Give ordered pain medication to relieve symptoms of pain episode.

ANS: B

These are the symptoms of chest syndrome, which is a medical emergency. Notifying the practitioner is the priority action. Oxygen may be indicated; however, it does not reverse the sickling that has occurred. Antibiotics are not indicated initially. Pain medications may be required, but evaluation by the practitioner is the priority.

15. In a child with sickle cell anemia (SCA), adequate hydration is essential to minimize sickling and delay the vasoocclusion and hypoxia-ischemia cycle. What information should the nurse share with parents in a teaching plan?

- a. Encourage drinking.
- b. Keep accurate records of output.
- c. Check for moist mucous membranes.
- d. Monitor the concentration of the child's urine.

ANS: C

Children with SCA have impaired kidney function and cannot concentrate urine. Parents are taught signs of dehydration and ways to minimize loss of fluid to the environment. Encouraging drinking is not specific enough for parents. The nurse should give the parents and child a target fluid amount for each 24-hour period. Accurate monitoring of output may not reflect the child's fluid needs. Without the ability to concentrate urine, the child needs additional intake to compensate. Dilute urine and specific gravity are not valid signs of hydration status in children with SCA.

16. What statement best describes  $\beta$ -thalassemia major (Cooley anemia)?

- a. It is an acquired hemolytic anemia.
- b. Inadequate numbers of red blood cells (RBCs) are present.
- c. Increased incidence occurs in families of Mediterranean extraction.
- d. It commonly occurs in individuals from West Africa.

ANS: C

Individuals who live near the Mediterranean Sea and their descendants have the highest incidence of thalassemia. Thalassemia is inherited as an autosomal recessive disorder. An overproduction of RBCs occurs. Although numerous, the red blood cells are relatively unstable. Sickle cell disease is common in blacks of West African descent.

17. What therapeutic intervention is most appropriate for a child with  $\beta$ -thalassemia major?

- a. Oxygen therapy
- b. Supplemental iron
- c. Adequate hydration
- d. Frequent blood transfusions

ANS: D

The goal of medical management is to maintain sufficient hemoglobin ( $>9.5$  g/dl) to prevent bone marrow expansion. This is achieved through a long-term transfusion program. Oxygen therapy and adequate hydration are not beneficial in the overall management of thalassemia. The child does not require supplemental iron. Iron overload is a problem because of frequent blood transfusions, decreased production of hemoglobin, and increased absorption from the gastrointestinal tract.

18. Iron overload is a side effect of chronic transfusion therapy. What treatment assists in minimizing this complication?

- a. Magnetic therapy
- b. Infusion of deferoxamine
- c. Hemoglobin electrophoresis
- d. Washing red blood cells (RBCs) to reduce iron

ANS: B

Deferoxamine infusions in combination with vitamin C allow the iron to remain in a more chelatable form. The iron can then be excreted more easily. Use of magnets does not remove additional iron from the body. Hemoglobin electrophoresis is used to confirm the diagnosis of hemoglobinopathies; it does not affect iron overload. Washed RBCs remove white blood cells and other proteins from the unit of blood; they do not affect the iron concentration.

19. In which condition are all the formed elements of the blood simultaneously depressed?

- a. Aplastic anemia
- b. Sick cell anemia
- c. Thalassemia major
- d. Iron deficiency anemia

ANS: A

Aplastic anemia refers to a bone marrow failure condition in which the formed elements of the blood are simultaneously depressed. Sick cell anemia is a hemoglobinopathy in which normal adult hemoglobin is partly or completely replaced by abnormal sickled hemoglobin. Thalassemia major is a group of blood disorders characterized by deficiency in the production rate of specific hemoglobin chains. Iron-deficiency anemia results in a decreased amount of circulating red cells.

20. For children who do not have a matched sibling bone marrow donor, the therapeutic management of aplastic anemia includes what intervention?

- a. Antibiotics
- b. Antiretroviral drugs
- c. Iron supplementation
- d. Immunosuppressive therapy

ANS: D

It is thought that aplastic anemia may be an autoimmune disease. Immunosuppressive therapy, including antilymphocyte globulin, antithymocyte globulin, cyclosporine, granulocyte colony-stimulating factor, and methylprednisone, has greatly improved the prognosis for patients with aplastic anemia. Antibiotics are not indicated as the management. They may be indicated for infections. Antiretroviral drugs and iron supplementation are not part of the therapy.

21. What statement is descriptive of most cases of hemophilia?

- a. X-linked recessive deficiency of platelets causing prolonged bleeding
- b. X-linked recessive inherited disorder in which a blood clotting factor is deficient
- c. Autosomal dominant deficiency of a factor involved in the blood-clotting reaction
- d. Y-linked recessive inherited disorder in which the red blood cells become moon shaped

ANS: B

The inheritance pattern in 80% of all the cases of hemophilia is X-linked recessive. The two most common forms of the disorder are factor VIII deficiency (hemophilia A, or classic hemophilia) and factor IX deficiency (hemophilia B, or Christmas disease). The disorder involves coagulation factors, not platelets. The disorder does not involve red blood cells or the Y chromosome.

TOP: Nursing Process: Assessment MSC: Client Needs: Physiological Integrity

22. The nurse is teaching the family of a child, age 8 years, with moderate hemophilia about home care. What should the nurse tell the family to do to minimize joint injury?

- a. Administer nonsteroidal anti-inflammatory drugs (NSAIDs).
- b. Administer DDAVP (synthetic vasopressin).
- c. Provide intravenous (IV) infusion of factor VIII concentrates.
- d. Encourage elevation and application of ice to the involved joint.

ANS: C

Parents are taught home infusion of factor VIII concentrate. For moderate and severe hemophilia, prompt IV administration is essential to prevent joint injury. NSAIDs are effective for pain relief. They must be given with caution because they inhibit platelet aggregation. A factor VIII level of 30% is necessary to stop bleeding. DDAVP can raise the factor VIII level fourfold. Moderate hemophilia is defined by a factor VIII activity of 4.9. A fourfold increase would not meet the 30% level. Ice and elevation are important adjunctive therapy, but factor VIII is necessary.

23. What condition is an acquired hemorrhagic disorder that is characterized by excessive destruction of platelets?

- a. Aplastic anemia
- b. Thalassemia major
- c. Idiopathic thrombocytopenic purpura
- d. Disseminated intravascular coagulation

ANS: C

Idiopathic thrombocytopenic purpura is an acquired hemorrhagic disorder characterized by an excessive destruction of platelets, discolorations caused by petechiae beneath the skin, and normal bone marrow. Aplastic anemia refers to a bone marrow failure condition in which the formed elements of the blood are simultaneously depressed. Thalassemia major is a group of blood disorders characterized by deficiency in the production rate of specific hemoglobin chains. Disseminated intravascular coagulation is characterized by diffuse fibrin deposition in the microvasculature, consumption of coagulation factors, and endogenous generation of thrombin and plasma.

24. Care for the child with acute idiopathic thrombocytopenic purpura (ITP) includes which therapeutic intervention?

- a. Splenectomy
- b. Intravenous administration of anti-D antibody
- c. Use of nonsteroidal anti-inflammatory drugs (NSAIDs)
- d. Helping child participate in sports

ANS: B

Anti-D antibody causes an increase in platelet count approximately 48 hours after administration. Splenectomy is reserved for chronic severe ITP not responsive to pharmacologic management. NSAIDs are not used in ITP. Both NSAIDs and aspirin interfere with platelet aggregation. The nurse works with the child and parents to choose quiet activities while the platelet count is below 100,000/mm<sup>3</sup>.

25. A toddler is diagnosed with chronic benign neutropenia. The parents are being taught about caring for their child. What information is important to include?

- a. Avoid large indoor crowds and people who are ill.
- b. Parenteral antibiotics are necessary to control disease.
- c. Frequent rest periods are needed during the daytime.
- d. List the side effects of corticosteroids used to decrease inflammation.

ANS: A

The parents are taught to minimize risk of infection by avoiding crowded areas and individuals who are ill. Parents are also cautioned about when to notify their practitioner and administration of granulocyte colony-stimulating factor, if indicated. Antibiotics are not needed unless the child has an infection. The toddler does not need any additional rest as a result of the neutropenia.

Corticosteroids are not indicated.

26. The majority of children in the United States with human immunodeficiency virus (HIV) infection acquired the disease by which means?

- a. Through sexual contact
- b. From a blood transfusion
- c. By using intravenous (IV) drugs
- d. Perinatally from their mothers

ANS: D

More than 90% of the children with HIV under 13 years who were reported to the Centers for Disease Control and Prevention acquired the infection during the perinatal period. With intervention, the number of children infected can be decreased. Sexual contact and IV drug use are the leading causes of infection in the 14- to 19-year age group. This number is less than the number of cases in the under 13-year age group. Transfusion has accounted for 3% to 6% of all pediatric acquired immunodeficiency syndrome cases to date. Before 1985 and routine screening of donated blood products, children with hemophilia were at great risk from pooled plasma products.

27. A young child with human immunodeficiency virus (HIV) is receiving several antiretroviral drugs. What is the purpose of these drugs?

- a. Cure the disease.
- b. Delay disease progression.
- c. Prevent spread of infection.
- d. Treat *Pneumocystis carinii* pneumonia.

ANS: B

Although not a cure, these antiretroviral drugs can suppress viral replication, preventing further deterioration of the immune system, and delay disease progression. At this time, cure is not possible. Antiretroviral drugs do not prevent the spread of the disease. *P. carinii* prophylaxis is accomplished with antibiotics.

28. The nurse is planning care for an adolescent with acquired immunodeficiency syndrome. What is the priority nursing goal?

- a. Prevent infection.
- b. Prevent secondary cancers.
- c. Identify source of infection.
- d. Restore immunologic defenses.

ANS: A

As a result of the immunocompromise that is associated with human immunodeficiency virus (HIV) infection, the prevention of infection is paramount. Although certain precautions are justified in limiting exposure to infection, these must be balanced with the concern for the child's normal developmental needs. Preventing secondary cancers is not currently possible. Case finding is not a priority nursing goal in planning care for an individual. Current drug therapy is affecting the disease progression; although not a cure, these drugs can suppress viral replication, preventing further deterioration but not actually restoring immunologic defenses.

29. The school nurse is informed that a child with human immunodeficiency virus (HIV) infection will be attending school soon. What is an important nursing intervention to include in the plan of care?

- a. Carefully follow universal precautions.
- b. Inform the parents of the other children.
- c. Determine how the child became infected.
- d. Reassure other children that they will not become infected.

ANS: A

Universal precautions are necessary to prevent further transmission of the disease. Informing the parents of the other children would violate the child's right to privacy. It is not within the role of the school nurse to determine how the child became infected. Reassuring other children that they will not become infected violates the child's privacy. General health classes can discuss prevention of HIV transmission.

30. What condition is an inherited immunodeficiency disorder characterized by absence of both humoral and cell-mediated immunity?

- a. Fanconi syndrome
- b. Wiskott-Aldrich syndrome
- c. Acquired immunodeficiency syndrome (AIDS)
- d. Severe combined immunodeficiency syndrome (SCIDS)

ANS: D

SCIDS is a genetic disorder that results in deficits of both humoral and cellular immunity. Fanconi syndrome is a hereditary disorder of red blood cell production. Wiskott-Aldrich syndrome is an X-linked recessive disorder with selected deficiencies of T and B lymphocytes. AIDS is not inherited.

31. The nurse is preparing a community outreach program about the prevention of iron-deficiency anemia in infants. What statement should the nurse include in the program?

- a. Whole milk can be introduced into the infant's diet in small amounts at 6 months.
- b. Iron supplements cannot be given until the infant is older than 1 year of age.



- c. Iron-fortified cereal should be introduced to the infant at 2 months of age.
- d. Breast milk or iron-fortified formula should be used for the first 12 months.

ANS: D

Prevention, the primary goal in iron-deficiency anemia, is achieved through optimal nutrition and appropriate iron supplements. The American Academy of Pediatrics recommends feeding an infant only breast milk or iron-fortified formula for the first 12 months of life. Whole cows milk should not be introduced until after 12 months, iron supplements can be given during the first year of life, and iron-fortified cereals should not be introduced until the infant is 4 to 6 months old.

32. A 5-year-old child is admitted to the hospital in a sickle cell crisis. The child has been alert and oriented but in severe pain. The nurse notes that the child is complaining of a headache and is having unilateral hemiplegia. What action should the nurse implement?

- a. Notify the health care provider.
- b. Place the child on bed rest.
- c. Administer a dose of hydrocodone (Vicodin).
- d. Start O2 per the hospitals protocol.

ANS: A

Any number of neurologic symptoms can indicate a minor cerebral insult, such as headache, aphasia, weakness, convulsions, visual disturbances, or unilateral hemiplegia. Loss of vision is usually the result of progressive retinopathy and retinal detachment. The nurse should notify the health care provider.

33. What pain medication is contraindicated in children with sickle cell disease (SCD)?

- a. Meperidine (Demerol)
- b. Hydrocodone (Vicodin)
- c. Morphine sulfate
- d. Ketorolac (Toradol)

ANS: A

Meperidine (pethidine [Demerol]) is not recommended. Normeperidine, a metabolite of meperidine, is a central nervous system stimulant that produces anxiety, tremors, myoclonus, and generalized seizures when it accumulates with repetitive dosing. Patients with SCD are particularly at risk for normeperidine-induced seizures.

34. In anticipation of the admission of a child with hereditary spherocytosis (HS) who is experiencing an aplastic crisis, what action should the nurse plan?

- a. Secure an isolation room.
- b. Prepare for a transfusion of packed red blood cells.
- c. Anticipate preoperative preparation for a splenectomy.
- d. Gather equipment and medication for treatment of shock.

ANS: B

In hereditary spherocytosis, aplastic crisis results in a sudden cessation of RBC production by the bone marrow. Hemoglobin and hematocrit values drop rapidly, which results in severe anemia. Transfusion support may be needed, and close monitoring of the child's cardiovascular status is

necessary. The nurse should prepare for a transfusion of packed red blood cells initially. An isolation room is not needed, splenectomy would not be done at this time, and the child will not be in shock.

35. A child with hemophilia A will have which abnormal laboratory result?

- a. PT (ProTime)
- b. Platelet count
- c. Fibrinogen level
- d. PTT (partial thromboplastin time)

ANS: D

The basic defect of hemophilia A is a deficiency of factor VIII. The partial thromboplastin time measures abnormalities in the intrinsic pathway (abnormalities in factors I, II, V, VIII, IX, X, XII, HMK, and KAL). The prothrombin time measures abnormalities of the extrinsic pathway (abnormalities in factors I, II, V, VII, and X). Fibrinogen level is not dependent on the intrinsic pathway. Platelets are not affected with hemophilia A.

## Chapter 26: Oncological Disorders

### MULTIPLE CHOICE

1. What childhood cancer may demonstrate patterns of inheritance that suggest a familial basis?

- a. Leukemia
- b. Retinoblastoma
- c. Rhabdomyosarcoma
- d. Osteogenic sarcoma

ANS: B

Retinoblastoma is an example of a pediatric cancer that demonstrates inheritance. The absence of the retinoblastoma gene allows for abnormal cell growth and the development of retinoblastoma. Chromosome abnormalities are present in many malignancies. They do not indicate a familial pattern of inheritance. The Philadelphia chromosome is observed in almost all individuals with chronic myelogenous leukemia. There is no evidence of a familial pattern of inheritance for rhabdomyosarcoma or osteogenic sarcoma cancers.

2. As part of the diagnostic evaluation of a child with cancer, biopsies are important for staging. What statement explains what staging means?

- a. Extent of the disease at the time of diagnosis
- b. Rate normal cells are being replaced by cancer cells
- c. Biologic characteristics of the tumor or lymph nodes
- d. Abnormal, unrestricted growth of cancer cells producing organ damage

ANS: A

Staging is a description of the extent of the disease at the time of diagnosis. Staging criteria exist for most tumors. The stage usually relates directly to the prognosis; the higher the stage, the poorer the prognosis. The rate that normal cells are being replaced by cancer cells is not a

definition of staging. Classification of the tumor refers to the biologic characteristics of the tumor or lymph nodes. Abnormal, unrestricted growth of cancer cells producing organ damage describes how cancer cells grow and can cause damage to an organ.

3. What statement related to clinical trials developed for pediatric cancers is most accurate?

- a. Are accessible only in major pediatric centers
- b. Do not require consent for standard therapy
- c. Provide the best available therapy compared with an expected improvement
- d. Are standardized to provide the same treatment to all children with the disease

ANS: C

Most clinical trials have a control group in which the patients receive the best available therapy currently known. The experimental group(s) receives treatment that is thought to be even better. The protocol outlines the therapy plan. Protocols are developed for many pediatric cancers. They can be accessed by pediatric oncologists throughout the United States. Consent is always required in treatment of children, especially for research protocols. The protocol is designed to optimize therapy for children based on disease type and stage.

MSC: Client Needs: Physiological Integrity

4. Chemotherapeutic agents are classified according to what feature?

- a. Side effects
- b. Effectiveness
- c. Mechanism of action
- d. Route of administration

ANS: C

Chemotherapeutic agents are classified according to mechanism of action. For example, antimetabolites resemble essential metabolic elements needed for growth but are different enough to block further deoxyribonucleic acid (DNA) synthesis. Although the side effect profiles may be similar for drugs within a classification, they are not the basis for classification. Most chemotherapeutic regimens contain combinations of drugs. The effectiveness of any one drug is relative to the cancer type, combination therapy, and protocol for administration. The route of administration is determined by the pharmacodynamics and pharmacokinetics of each drug.

5. What type of chemotherapeutic agent alters the function of cells by replacing a hydrogen atom of a molecule?

- a. Plant alkaloids
- b. Antimetabolites
- c. Alkylating agents
- d. Antitumor antibiotics

ANS: C

Alkylating agents replace a hydrogen atom with an alkyl group. The irreversible combination of alkyl groups with nucleotide chains, particularly deoxyribonucleic acid (DNA), causes unbalanced growth of unaffected cell constituents so that the cell eventually dies. Plant alkaloids arrest the cell in metaphase by binding to proteins needed for spindle formation. Antimetabolites resemble essential metabolic elements needed for growth but are different enough to block further DNA synthesis. Antitumor antibiotics are natural substances that interfere with cell

division by reacting with DNA in such a way as to prevent further replication of DNA and transcription of ribonucleic acid (RNA).

6. What side effect commonly occurs with corticosteroid (prednisone) therapy?

- a. Alopecia
- b. Anorexia
- c. Nausea and vomiting
- d. Susceptibility to infection

ANS: D

Corticosteroids have immunosuppressive effects. Children who are taking prednisone are susceptible to infections. Hair loss is not a side effect of corticosteroid therapy. Children taking corticosteroids have increased appetites. Gastric irritation, not nausea and vomiting, is a potential side effect. The medicine should be given with food.

7. What chemotherapeutic agent is classified as an antitumor antibiotic?

- a. Cisplatin (Platinol AQ)
- b. Vincristine (Oncovin)
- c. Methotrexate (Texall)
- d. Daunorubicin (Cerubidine)

ANS: D

Daunorubicin is an antitumor antibiotic. Cisplatin is classified as an alkylating agent. Vincristine is a plant alkaloid. Methotrexate is an antimetabolite.

8. The nurse is administering an intravenous chemotherapeutic agent to a child with leukemia. The child suddenly begins to wheeze and have severe urticaria. What nursing action is most appropriate to initiate?

- a. Recheck the rate of drug infusion.
- b. Stop the drug infusion immediately.
- c. Observe the child closely for next 10 minutes.
- d. Explain to the child that this is an expected side effect.

ANS: B

When an allergic reaction is suspected, the drug is immediately discontinued. Any drug in the line should be withdrawn, and a normal saline infusion begun to keep the line open. The intravenous infusion is stopped to minimize the amount of drug that infuses. The infusion rate can be confirmed at a later time. Observation of the child for 10 minutes is essential, but it is done after the infusion is stopped. These signs are indicative of an allergic reaction, not an expected response.

9. Total-body irradiation is indicated for what reason?

- a. Palliative care
- b. Lymphoma therapy
- c. Definitive therapy for leukemia
- d. Preparation for bone marrow transplant

ANS: D

Total-body irradiation is used as part of the destruction of the child's immune system necessary for a bone marrow transplant. The child is at great risk for complications because there is no supportive therapy until engraftment of the donor marrow takes place. Irradiation for palliative care is done selectively. The area that is causing pain or potential obstruction is irradiated. Lymphoma and leukemia are treated through a combination of modalities. Total-body irradiation is not indicated.

10. The parents of a child with cancer tell the nurse that a bone marrow transplant (BMT) may be necessary. What information should the nurse recognize as important when discussing this with the family?

- a. BMT should be done at the time of diagnosis.
- b. Parents and siblings of the child have a 25% chance of being a suitable donor.
- c. If BMT fails, chemotherapy or radiotherapy will need to be continued.
- d. Finding a suitable donor involves matching antigens from the human leukocyte antigen (HLA) system.

ANS: D

The most successful BMTs come from suitable HLA-matched donors. The timing of a BMT depends on the disease process involved. It usually follows intensive high-dose chemotherapy or radiotherapy. Usually, parents only share approximately 50% of the genetic material with their children. A one in four chance exists that two siblings will have two identical haplotypes and will be identically matched at the HLA loci. The decision to continue chemotherapy or radiotherapy if BMT fails is not appropriate to discuss with the parents when planning the BMT. That decision will be made later.

11. An adolescent will receive a bone marrow transplant (BMT). The nurse should explain that the bone marrow will be administered by which method?

- a. Bone grafting
- b. Intravenous infusion
- c. Bone marrow injection
- d. Intraabdominal infusion

ANS: B

Bone marrow from a donor is infused intravenously, and the transfused stem cells migrate to the recipient's marrow and repopulate it.

12. After chemotherapy is begun for a child with acute leukemia, prophylaxis to prevent acute tumor lysis syndrome includes which therapeutic intervention?

- a. Hydration
- b. Oxygenation
- c. Corticosteroids
- d. Pain management

ANS: A

Acute tumor lysis syndrome results from the release of intracellular metabolites during the initial treatment of leukemia. Hyperuricemia, hypocalcemia, hyperphosphatemia, and hyperkalemia can result. Hydration is used to reduce the metabolic consequences of the tumor lysis. Oxygenation is

not helpful in preventing acute tumor lysis syndrome. Allopurinol, not corticosteroids, is indicated for pharmacologic management. Pain management may be indicated for supportive therapy of the child, but it does not prevent acute tumor lysis syndrome.

13. Nursing care of the child with myelosuppression from leukemia or chemotherapeutic agents should include which therapeutic intervention?

- a. Restrict oral fluids.
- b. Institute strict isolation.
- c. Use good hand-washing technique.
- d. Give immunizations appropriate for age.

ANS: C

Good hand washing minimizes the exposure to infectious organisms and decreases the chance of infection spread. Oral fluids are encouraged if the child is able to drink. If possible, the intravenous route is not used because of the increased risk of infection from parenteral fluid administration. Strict isolation is not indicated. When the child is immunocompromised, the vaccines are not effective. If necessary, the appropriate immunoglobulin is administered.

14. In teaching parents how to minimize or prevent bleeding episodes when the child is myelosuppressed, the nurse includes what information?

- a. Meticulous mouth care is essential to avoid mucositis.
- b. Rectal temperatures are necessary to monitor for infection.
- c. Intramuscular injections are preferred to intravenous ones.
- d. Platelet transfusions are given to maintain a count greater than 50,000/mm<sup>3</sup>.

ANS: A

The decrease in blood platelets secondary to the myelosuppression of chemotherapy can cause an increase in bleeding. The child and family are taught how to perform good oral hygiene to minimize gingival bleeding and mucositis. Rectal temperatures are avoided to minimize the risk of ulceration. Hygiene is also emphasized. Intramuscular injections are avoided because of the risk of bleeding into the muscle and of infection. Platelet transfusions are usually not given unless there is active bleeding or the platelet count is less than 10,000/mm<sup>3</sup>. The use of platelets when not necessary can contribute to antibody formation and increased destruction of platelets when transfused.

15. A school-age child with leukemia experienced severe nausea and vomiting when receiving chemotherapy for the first time. What is the most appropriate nursing action to prevent or minimize these reactions with subsequent treatments?

- a. Administer the chemotherapy between meals.
- b. Give an antiemetic before chemotherapy begins.
- c. Have the child bring favorite foods for snacks.
- d. Keep the child NPO (nothing by mouth) until nausea and vomiting subside.

ANS: B

The most beneficial regimen to minimize nausea and vomiting associated with chemotherapy is to administer a 5-hydroxytryptamine-3 receptor antagonist (e.g., ondansetron) before the chemotherapy is begun. The goal is to prevent anticipatory signs and symptoms. The child will

experience nausea with chemotherapy whether or not food is present in the stomach. Because some children develop aversions to foods eaten during chemotherapy, refraining from offering favorite foods is advised. Keeping the child NPO until nausea and vomiting subside will help with this episode, but the child will have discomfort and be at risk for dehydration.

16. A young child with leukemia has anorexia and severe stomatitis. What approach should the nurse suggest that the parents try?

- a. Relax any eating pressures.
- b. Firmly insist that the child eat normally.
- c. Serve foods that are either hot or cold.
- d. Provide only liquids because chewing is painful.

ANS: A

A multifaceted approach is necessary for children with severe stomatitis and anorexia. First, the parents should relax eating pressures. The nurse should suggest that the parents try soft, bland foods; normal saline or bicarbonate mouthwashes; and local anesthetics. Insisting that the child eat normally is not suggested. For some children, not eating may be a way to maintain some control. This can set the child and caregiver in opposition to each other. Hot and cold foods can be painful on ulcerated mucosal membranes. Substitution of high-calorie foods that the child likes and can eat should be used.

17. The nurse is preparing a child for possible alopecia from chemotherapy. What information should the nurse include?

- a. Wearing hats or scarves is preferable to a wig.
- b. Expose head to sunlight to stimulate hair regrowth.
- c. Hair may have a slightly different color or texture when it regrows.
- d. Regrowth of hair usually begins 12 months after chemotherapy ends.

ANS: C

Alopecia is a side effect of certain chemotherapeutic agents and cranial irradiation. When the hair regrows, it may be of a different color or texture. Children should choose the head covering they prefer. A wig should be selected similar to the child's own hairstyle and color before the hair loss. The head should be protected from sunlight to avoid sunburn. The hair usually grows back within 3 to 6 months after the cessation of treatment.

18. What pain management approach is most effective for a child who is having a bone marrow test?

- a. Relaxation techniques
- b. Administration of an opioid
- c. EMLA cream applied over site
- d. Conscious or unconscious sedation

ANS: D

Children need explanations before each procedure that is being done to them. Effective pharmacologic and nonpharmacologic measures should be used to minimize pain associated with procedures. For bone marrow aspiration, conscious or unconscious sedation should be used.

Relaxation, opioids, and EMLA can be used to augment the sedation.

19. The nurse is caring for a child receiving chemotherapy for leukemia. The child's granulocyte count is 600/mm<sup>3</sup> and platelet count is 45,000/mm<sup>3</sup>. What oral care should the nurse recommend for this child?

- a. Rinsing mouth with water
- b. Daily toothbrushing and flossing
- c. Lemon glycerin swabs for cleansing
- d. Wiping teeth with moistened gauze or Toothettes

ANS: B

Oral care is essential for children receiving chemotherapy to prevent infections and other complications. When the child's granulocyte count is above 500/mm<sup>3</sup> and platelet count is above 40,000/mm<sup>3</sup>, daily brushing and flossing are recommended. Rinsing the mouth with water is not effective for oral hygiene. Lemon glycerin swabs are avoided because they have a drying effect on the mucous membranes, and the lemon may irritate eroded tissue and decay the child's teeth. Wiping teeth with moistened gauze or Toothettes is recommended when the child's granulocyte count is below 500/mm<sup>3</sup> and platelet count is below 40,000/mm<sup>3</sup>.

20. What immunization should not be given to a child receiving chemotherapy for cancer?

- a. Tetanus vaccine
- b. Inactivated poliovirus vaccine
- c. Diphtheria, pertussis, tetanus (DPT)
- d. Measles, mumps, rubella (MMR)

ANS: D

The vaccine used for MMR is a live virus and can cause serious disease in immunocompromised children. The tetanus vaccine, inactivated poliovirus vaccine, and DPT are not live vaccines and can be given to immunosuppressed children. The immune response is likely to be suboptimal, so delaying vaccination is usually recommended.

21. What description identifies the pathophysiology of leukemia?

- a. Increased blood viscosity
- b. Abnormal stimulation of the first stage of coagulation process
- c. Unrestricted proliferation of immature white blood cells (WBCs)
- d. Thrombocytopenia from an excessive destruction of platelets

ANS: C

Leukemia is a group of malignant disorders of the bone marrow and lymphatic system. It is defined as an unrestricted proliferation of immature WBCs in the blood-forming tissues of the body. Increased blood viscosity may result secondary to the increased number of WBCs. The coagulation process is unaffected by leukemia. Thrombocytopenia may occur secondary to the overproduction of WBCs in the bone marrow.

22. A child with leukemia is receiving intrathecal chemotherapy to prevent which condition?

- a. Infection
- b. Brain tumor
- c. Central nervous system (CNS) disease



- 
- d. Drug side effects

ANS: C

Children with leukemia are at risk for invasion of the CNS with leukemic cells. CNS prophylactic therapy is indicated. Intrathecal chemotherapy does not prevent infection or drug side effects. A brain tumor in a child with leukemia would be a second tumor, and additional appropriate therapy would be indicated.

23. A parent tells the nurse that 80% of children with the same type of leukemia as his sons have a 5-year survival. He believes that because another child on the same protocol as his son has just died, his son now has a better chance of success. What is the best response by the nurse?

- 
- a. It is sad for the other family but good news for your child.
- 
- b. Each child has an 80% likelihood of 5-year survival.
- 
- c. The data suggest that 20% of the children in the clinic will die. There are still many hurdles for your son.
- 
- d. You should avoid the grieving family because you will be benefiting from their loss.

ANS: B

This is a common misconception for parents. The success data are based on numerous factors, including the effectiveness of the protocol and the child's response. These are aggregate data that apply to each child and do not depend on the success or failure in other children. The failure of one child in a protocol does not improve the success rate for other children. Although the son does face more hurdles, these are aggregate data, not specific to the clinic. It may be difficult for this family to be supportive given their concerns about their child. Families usually form support groups in pediatric oncology settings, and support during bereavement is common.

MSC: Client Needs: Psychosocial Integrity

24. What is a common clinical manifestation of Hodgkin disease?

- 
- a. Petechiae
- 
- b. Bone and joint pain
- 
- c. Painful, enlarged lymph nodes
- 
- d. Nontender enlargement of lymph nodes

ANS: D

Asymptomatic, enlarged cervical or supraclavicular lymphadenopathy is the most common presentation of Hodgkin disease. Petechiae are usually associated with leukemia. Bone and joint pain are not likely in Hodgkin disease. The enlarged nodes are rarely painful.

25. What are the most common clinical manifestations of brain tumors in children?

- 
- a. Headaches and vomiting
- 
- b. Blurred vision and ataxia
- 
- c. Hydrocephalus and clumsy gait
- 
- d. Fever and poor fine motor control

ANS: A

Headaches, especially on awakening, and vomiting that is not related to feeding are the most common clinical manifestations of brain tumors in children. Diplopia (double vision), not blurred vision, can be a presenting sign of brainstem glioma. Ataxia is a clinical manifestation of brain

tumors, but headaches and vomiting are the most common. Hydrocephalus can be a presenting sign in infants when the sutures have not closed. Children at this age are usually not walking steadily. Poor fine motor coordination may be a presenting sign of astrocytoma, but headaches and vomiting are the most common presenting signs of brain tumors.

26. A 5-year-old child is being prepared for surgery to remove a brain tumor. Preparation for surgery should be based on which information?

- a. Removal of the tumor will stop the various signs and symptoms.
- b. Usually the postoperative dressing covers the entire scalp.
- c. He is not old enough to be concerned about his head being shaved.
- d. He is not old enough to understand the significance of the brain.

ANS: B

The child should be told what he will look and feel like after surgery. This includes the anticipated size of the dressing. The nurse can demonstrate on a doll the expected size and shape of the dressing. Some of the symptoms may be alleviated by removal of the tumor, but postsurgical headaches and cerebellar symptoms such as ataxia may be aggravated. Children should be prepared for the loss of their hair, and it should be removed in a sensitive, positive manner if the child is awake. Children at this age have poorly defined body boundaries and little knowledge of internal organs. Intrusive experiences are frightening, especially those that disrupt the integrity of the skin.

27. Essential postoperative nursing management of a child after removal of a brain tumor includes which nursing care?

- a. Turning and positioning every 2 hours
- b. Measuring all fluid intake and output
- c. Changing the dressing when it becomes soiled
- d. Using maximum lighting to ensure accurate observations

ANS: B

After brain surgery, cerebral edema is a risk. Careful monitoring is essential. All fluids, including intravenous antibiotics, are included in the intake. Turning and positioning depend on the surgical procedure. When large tumors are removed, the child is usually not positioned on the operative side. The dressing is not changed. It is reinforced with gauze after the amount of drainage is marked and estimated. A quiet, dimly lit environment is optimum to decrease stimulation and relieve discomfort such as headaches.

28. An adolescent is scheduled for a leg amputation in 2 days for treatment of osteosarcoma. What approach should the nurse implement?

- a. Answer questions with straightforward honesty.
- b. Avoid discussing the seriousness of the condition.
- c. Explain that although the amputation is difficult, it will cure the cancer.
- d. Help the adolescent accept the amputation as better than a long course of chemotherapy.

ANS: A

Honesty is essential to gain the child's cooperation and trust. The diagnosis of cancer should not be disguised with falsehoods. The adolescent should be prepared for the surgery so there is time for reflection about the diagnosis and subsequent treatment. This allows questions to be

answered. To accept the need for radical surgery, the child must be aware of the lack of alternatives for treatment. Amputation is necessary, but it will not guarantee a cure. Chemotherapy is an integral part of the therapy with surgery. The child should be informed of the need for chemotherapy and its side effects before surgery.

29. What is an important priority in dealing with the child suspected of having Wilms tumor?

- a. Intervening to minimize bleeding
- b. Monitoring temperature for infection
- c. Ensuring the abdomen is protected from palpation
- d. Teaching parents how to manage the parenteral nutrition

ANS: C

Wilms tumor, or nephroblastoma, is the most common malignant renal and intraabdominal tumor of childhood. The abdomen is protected, and palpation is avoided. Careful handling and bathing are essential to prevent trauma to the tumor site. Before chemotherapy, the child is not myelosuppressed. Bleeding is not usually a risk. Infection is a concern after surgery and during chemotherapy, not before surgery. Parenteral therapy is not indicated before surgery.

30. The mother of an infant tells the nurse that sometimes there is a whitish glow in the pupil of his eye. The nurse should suspect which condition?

- a. Brain tumor
- b. Retinoblastoma
- c. Neuroblastoma
- d. Rhabdomyosarcoma

ANS: B

When the nurse examines the eye, the light will reflect off of the tumor, giving the eye a whitish appearance. This is called a cats eye reflex. Brain tumors are not usually visible. Neuroblastoma usually arises from the adrenal medulla and sympathetic nervous system. The most common presentation sites are in the abdomen, head, neck, or pelvis. Supraorbital ecchymosis may be present with distant metastasis. Rhabdomyosarcoma is a soft tissue tumor that derives from skeletal muscle undifferentiated cells.

31. The nurse is caring for a 6-year-old child with acute lymphoblastic leukemia (ALL). The parent states, My child has a low platelet count, and we are being discharged this afternoon. What do I need to do at home? What statement is most appropriate for the nurse to make?

- a. You should give your child aspirin instead of acetaminophen for fever or pain.
- b. Your child should avoid contact sports or activities that could cause bleeding.
- c. You should feed your child a bland, soft, moist diet for the next week.
- d. Your child should avoid large groups of people for the next week.

ANS: B

A child with a low platelet count needs to avoid activities that could cause bleeding such as playing contact sports, climbing trees, using playground equipment, or bike riding. The child should be given acetaminophen, not aspirin, for fever or pain; the child does not need to be on a soft, bland diet or avoid large groups of people because of the low platelet count.

32. One pediatric oncologic emergency is acute tumor lysis syndrome. Symptoms that this may be occurring include what?

- a. Muscle cramps and tetany
- b. Respiratory distress and cyanosis
- c. Thrombocytopenia and sepsis
- d. Upper extremity edema and neck vein distension

ANS: A

Risk factors for development of tumor lysis syndrome include a high white blood cell count at diagnosis, large tumor burden, sensitivity to chemotherapy, and high proliferative rate. In addition to the described metabolic abnormalities, children may develop a spectrum of clinical symptoms, including flank pain, lethargy, nausea and vomiting, muscle cramps, pruritus, tetany, and seizures. Respiratory distress and cyanosis occur with hyperleukocytosis. Thrombocytopenia and sepsis occur with disseminated intravascular coagulation. Upper extremity edema and neck vein distention occur with superior vena cava syndrome.

33. A child has an absolute neutrophil count (ANC) of 500/mm<sup>3</sup>. The nurse should expect to be administering which prescribed treatment?

- a. Platelets
- b. Packed red blood cells
- c. Zofran (ondansetron)
- d. G-CSF (Neupogen) daily

ANS: D

G-CSF (filgrastim [Neupogen], pegfilgrastim [Neulasta]) directs granulocyte development and can decrease the duration of neutropenia following immunosuppressive therapy. G-CSF is discontinued when the ANC surpasses 10,000/mm<sup>3</sup>.

34. What specific gravity of the urine is desired so that hemorrhagic cystitis is prevented?

- a. 1.035
- b. 1.030
- c. 1.025
- d. 1.005

ANS: D

Sterile hemorrhagic cystitis is a side effect of chemical irritation to the bladder from chemotherapy or radiotherapy. It can be prevented by a liberal oral or parenteral fluid intake (at least one and a half times the recommended daily fluid requirement). The urine should be dilute so 1.005 is the expected specific gravity.

35. A child, age 10 years, has a neuroblastoma and is in the hospital for additional chemotherapy treatments. What laboratory values are most likely this child's?

- a. White blood cell count, 17,000/mm<sup>3</sup>; hemoglobin, 15 g/dl
- b. White blood cell count, 3,000/mm<sup>3</sup>; hemoglobin, 11.5 g/dl
- c. Platelets, 450,000/mm<sup>3</sup>; hemoglobin, 12 g/dl

- d. White blood cell count, 10,000/mm<sup>3</sup>; platelets, 175,000/mm<sup>3</sup>

ANS: B

Chemotherapy is the mainstay of therapy for extensive local or disseminated neuroblastoma. The drugs of choice are vincristine, doxorubicin, cyclophosphamide, cisplatin, etoposide, ifosfamide, and carboplatin. These cause immunosuppression, so the laboratory values will indicate a low white blood cell count and hemoglobin.

TOP: Nursing Process: Assessment MSC: Client Needs: Physiological Integrity

36. Calculate the absolute neutrophil count (ANC) for the following: WBC count of 5000 mm<sup>3</sup>; neutrophils (segs) of 10%; and nonsegmented neutrophils (bands) of 12%.

- a. 110/mm<sup>3</sup>
- b. 500/mm<sup>3</sup>
- c. 1100/mm<sup>3</sup>
- d. 5000/mm<sup>3</sup>

ANS: C

Determine the total percentage of neutrophils (polys, or segs, and bands). Multiply white blood cell (WBC) count by percentage of neutrophils.

WBC = 1000/mm<sup>3</sup>, neutrophils = 7%, and nonsegmented neutrophils (bands) = 7%

Step 1: 10% + 12% = 22%

Step 2: 0.22 5000 = 1100/mm<sup>3</sup> ANC

37. A child has been diagnosed with a Wilms tumor. What should preoperative nursing care include?

- a. Careful bathing and handling
- b. Monitoring of behavioral status
- c. Maintenance of strict isolation
- d. Administration of packed red blood cells

ANS: A

Careful bathing and handling are important in preventing trauma to the Wilms tumor site.

38. What is appropriate mouth care for a toddler with mucosal ulceration related to chemotherapy?

- a. Mouthwashes with plain saline
- b. Lemon glycerin swabs for cleansing
- c. Mouthwashes with hydrogen peroxide
- d. Swish and swallow with viscous lidocaine

ANS: A

Administering mouth care is particularly difficult in infants and toddlers. A satisfactory method of cleaning the gums is to wrap a piece of gauze around a finger; soak it in saline or plain water; and swab the gums, palate, and inner cheek surfaces with the finger. Mouth rinses are best accomplished with plain water or saline because the child cannot gargle or spit out excess fluid. Avoid agents such as lemon glycerin swabs and hydrogen peroxide because of the drying effects on the mucosa. Lidocaine should be avoided in young children.

39. The nurse should expect to care for which age of child if the admitting diagnosis is retinoblastoma?

- a. Infant or toddler
- b. Preschool- or school-age child
- c. School-age or adolescent child
- d. Adolescent

ANS: A

The average age of the child at the time of diagnosis is 2 years, and bilateral and hereditary disease is diagnosed earlier than unilateral and nonhereditary disease.

## Chapter 27: Alterations in Musculoskeletal Function

### MULTIPLE CHOICE

1. An 8-year-old child is hit by a motor vehicle in the school parking lot. The school nurse notes that the child is responding to verbal stimulation but is not moving his extremities when requested. What is the first action the nurse should take?

- a. Wait for the child's parents to arrive.
- b. Move the child out of the parking lot.
- c. Have someone notify the emergency medical services (EMS) system.
- d. Help the child stand to return to play.

ANS: C

The child was involved in a motor vehicle collision and at this time is not able to move his extremities. The child needs immediate attention at a hospital for assessment of the possibility of a spinal cord injury. Because the child cannot move his extremities, the child should not be moved until his cervical and vertebral spines are stabilized. The EMS team can appropriately stabilize the spinal column for transport. Although it is important to notify the parents, the EMS system should be activated and transport arranged for serious injuries. The only indication to move the child is to prevent further trauma.

2. The nurse stops to assist an adolescent who has experienced severe trauma when hit by a motorcycle. The emergency medical system (EMS) has been activated. The first person who provided assistance applied a tourniquet to the child's leg because of arterial bleeding. What should the nurse do related to the tourniquet?

- a. Loosen the tourniquet.
- b. Leave the tourniquet in place.
- c. Remove the tourniquet and apply direct pressure if bleeding is still present.
- d. Remove the tourniquet every 5 minutes, leaving it off for 30 seconds each time.

ANS: B

A tourniquet is applied only as a last resort, and then it is left in place and not loosened until definitive treatment is available. After the tourniquet is applied, skin and tissue necrosis occur

below the site. Loosening or removing the tourniquet allows toxins from the tissue necrosis to be released into the circulation. This can induce systemic, deadly tourniquet shock.

3. What is a physiologic effect of immobilization on children?

- a. Metabolic rate increases.
- b. Venous return improves because the child is in the supine position.
- c. Circulatory stasis can lead to thrombus and embolus formation.
- d. Bone calcium increases, releasing excess calcium into the body (hypercalcemia).

ANS: C

The physiologic effects of immobilization, as a result of decreased muscle contraction, include venous stasis. This can lead to pulmonary emboli or thrombi. The metabolic rate decreases with immobilization. With the loss of muscle contraction, there is a decreased venous return to the heart. Calcium leaves the bone during immobilization, leading to bone demineralization and increasing the calcium ion concentration in the blood.

4. What condition can result from the bone demineralization associated with immobility?

- a. Osteoporosis
- b. Pooling of blood
- c. Urinary retention
- d. Susceptibility to infection

ANS: A

Bone demineralization leads to a negative calcium balance, osteoporosis, pathologic fractures, extraosseous bone formation, and renal calculi. Pooling of blood is a result of the cardiovascular effects of immobilization. Urinary retention is secondary to the effect of immobilization on the urinary tract. Susceptibility to infection can result from the effects of immobilization on the respiratory and renal systems.

5. What measure is important in managing hypercalcemia in a child who is immobilized?

- a. Provide adequate hydration.
- b. Change position frequently.
- c. Encourage a diet high in calcium.
- d. Provide a diet high in calories for healing.

ANS: A

Vigorous hydration is indicated to prevent problems with hypercalcemia. Suggested intake for an adolescent is 3000 to 4000 ml/day of fluids. Diuretics are used to promote the removal of calcium. Changing position is important for skin and respiratory concerns. Calcium in the diet is restricted when possible. A high-protein diet served as frequent snacks with favored foods is recommended. A high-calorie diet without adequate protein will not promote healing.

6. The nurse is caring for an immobilized preschool child. What intervention is helpful during this period of immobilization?

- a. Encourage wearing pajamas.
- b. Let the child have few behavioral limitations.
- c. Keep the child away from other immobilized children if possible.

- 
- d. Take the child for a walk by wagon outside the room.

ANS: D

Transporting the child outside of the room by stretcher, wheelchair, or wagon increases environmental stimuli and provides social contact. Street clothes are preferred for hospitalized children. This decreases the sense of illness and disability. The child needs appropriate limits for both adherence to the medical regimen and developmental concerns. It is not necessary to keep the child away from other immobilized children.

7. The nurse is teaching parents the proper use of a hipkneeanklefoot orthosis (HKAFO) for their 4-year-old child. The parents demonstrate basic essential knowledge by making what statement?

- a. Alcohol will be used twice a day to clean the skin around the brace.
- b. Weekly visits to the orthotist are scheduled to check screws for tightness.
- c. Initially, a burning sensation is expected and the brace should remain in place.
- d. Condition of the skin in contact with the brace should be checked every 4 hours.

ANS: D

This type of brace has several contact points with the child's skin. To minimize the risk of skin breakdown and facilitate use of the brace, vigilant skin monitoring is necessary. Alcohol should not be used on the skin. It is drying. Parents are capable of checking and tightening the screws when necessary. If a burning sensation occurs, the brace should be removed. If several complaints of burning occur, the orthotist should be contacted.

8. Immobilization causes what effect on metabolism?

- a. Hypocalcemia
- b. Decreased metabolic rate
- c. Positive nitrogen balance
- d. Increased levels of stress hormones

ANS: B

Immobilization causes a decreased metabolic rate with slowing of all systems and a decreased food intake. Immobilization leads to hypercalcemia and a negative nitrogen balance secondary to muscle atrophy. Decreased production of stress hormones occurs with decreased physical and emotional coping capacity.

9. What finding is characteristic of fractures in children?

- a. Fractures rarely occur at the growth plate site because it absorbs shock well.
- b. Rapidity of healing is inversely related to the child's age.
- c. Pliable bones of growing children are less porous than those of adults.
- d. The periosteum of a child's bone is thinner, is weaker, and has less osteogenic potential compared to that of an adult.

ANS: B

Healing is more rapid in children. The younger the child, the more rapid the healing process. Nonunion of bone fragments is uncommon except in severe injuries. The epiphyseal plate is the weakest point of long bones and a frequent site of injury during trauma. Children's bones are more pliable and porous than those of adults. This allows them to bend, buckle, and break. The



greater porosity increases the flexibility of the bone and dissipates and absorbs a significant amount of the force on impact. The adult periosteum is thinner, is weaker, and has less osteogenic potential than that of a child.

10. A 14-year-old is admitted to the emergency department with a fracture of the right humerus epiphyseal plate through the joint surface. What information does the nurse know regarding this type of fracture?

- a. It will create difficulty because the child is left handed.
- b. It will heal slowly because this is the weakest part of the bone.
- c. This type of fracture requires different management to prevent bone growth complications.
- d. This type of fracture necessitates complete immobilization of the shoulder for 4 to 6 weeks.

ANS: C

This type of fracture (Salter type III) can cause problems with growth in the affected limb. Early and complete assessment is essential to prevent angular deformities and longitudinal growth problems. The difficulty for the child does not depend on the location at the epiphyseal plate. Any fracture of the dominant arm presents obstacles for the individual. Healing is usually rapid in the epiphyseal plate area. Complete immobilization is not necessary. Often these injuries are surgically repaired with open reduction and internal fixation.

11. Parents bring a 7-year-old child to the clinic for evaluation of an injured wrist after a bicycle accident. The parents and child are upset, and the child will not allow an examination of the injured arm. What priority nursing intervention should occur at this time?

- a. Send the child to radiology so radiography can be performed.
- b. Initiate an intravenous line and administer morphine for the pain.
- c. Calmly ask the child to point to where the pain is worst and to wiggle fingers.
- d. Have the parents hold the child so that the nurse can examine the arm thoroughly.

ANS: C

Initially, assessment is the priority. Because the child is alert but upset, the nurse should work to gain the child's trust. Initial data are gained by observing the child's ability to move the fingers and to point to the pain. Other important observations at this time are pallor and paresthesia. The child needs to be sent for radiography, but initial assessment data need to be obtained. Sending the child for radiography will increase the child's anxiety, making the examination difficult. It is inappropriate to ask parents to restrain their child. These parents are upset about the injury. If restraint is indicated, the nurse should obtain assistance from other personnel.

12. A 7-year-old child has just had a cast applied for a fractured arm with the wrist and elbow immobilized. What information should be included in the home care instructions?

- a. No restrictions of activity are indicated.
- b. Elevate casted arm when both upright and resting.
- c. The shoulder should be kept as immobile as possible to avoid pain.
- d. Swelling of the fingers is to be expected. Notify a health professional if it persists more than 48 hours.

ANS: B

The injured extremity should be kept elevated while resting and in a sling when upright. This will increase venous return. The child should not engage in strenuous activity for the first few

days. Rest with elevation of the extremity is encouraged. Joints above and below the cast on the affected extremity should be moved. Swelling of the fingers may indicate neurovascular damage and should be reported immediately. Permanent damage can occur within 6 to 8 hours.

13. The nurse uses the five Ps to assess ischemia in a child with a fracture. What finding is considered a late and ominous sign?

- a. Petaling
- b. Posturing
- c. Paresthesia
- d. Positioning

ANS: C

Paresthesia distal to the injury or cast is an ominous sign that requires immediate notification of the practitioner. Permanent muscle and tissue damage can occur within 6 hours. The other signs of ischemia that need to be reported are pain, pallor, pulselessness, and paralysis. Petaling is a method of placing protective or smooth edges on a cast. Posturing is not a sign of peripheral ischemia. Finding a position of comfort can be difficult with a fracture. It would not be an ominous sign unless pain was increasing or uncontrollable.

14. A child is upset because, when the cast is removed from her leg, the skin surface is caked with desquamated skin and sebaceous secretions. What technique should the nurse suggest to remove this material?

- a. Soak in a bathtub.
- b. Vigorously scrub the leg.
- c. Carefully pick material off the leg.
- d. Apply powder to absorb the material.

ANS: A

Simply soaking in the bathtub is usually sufficient for removal of the desquamated skin and sebaceous secretions. Several days may be required to eliminate the accumulation completely. The parents and child should be advised not to scrub the leg vigorously or forcibly remove this material because it may cause excoriation and bleeding. Oil or lotion, but not powder, may provide comfort for the child.

15. A child with a hip spica cast is being prepared for discharge. Recognizing that caring for a child at home is complex, the nurse should include what instructions for the parents discharge teaching?

- a. Turn every 8 hours.
- b. Specially designed car restraints are necessary.
- c. Diapers should be avoided to reduce soiling of the cast.
- d. Use an abduction bar between the legs to aid in turning.

ANS: B

Standard seat belts and car seats may not be readily adapted for use by children in some casts. Specially designed car seats and restraints meet safety requirements. The child must have position changes much more frequently than every 8 hours. During feeding and play activities,

the child should be moved for both physiologic and psychosocial benefit. Diapers and other strategies are necessary to maintain cleanliness. The abduction bar is never used as an aid for turning. Putting pressure on the bar may damage the integrity of the cast.

16. What is an appropriate nursing intervention when caring for a child in traction?

- a. Removing adhesive traction straps daily to prevent skin breakdown
- b. Assessing for tightness, weakness, or contractures in uninvolved joints and muscles
- c. Providing active range of motion exercises to affected extremity three times a day
- d. Keeping child prone to maintain good alignment

ANS: B

Traction places stress on the affected bone, joint, and muscles. The nurse must assess for tightness, weakness, or contractures developing in the uninvolved joints and muscles. The adhesive straps should be released or replaced only when absolutely necessary. Active, passive, or active with resistance exercises should be carried out for the unaffected extremity only. Movement is expected with children. Each time the child moves, the nurse should check to ensure that proper alignment is maintained.

17. The nurse is caring for a hospitalized adolescent whose femur was fractured 18 hours ago. The adolescent suddenly develops chest pain and dyspnea. The nurse should suspect what complication?

- a. Sepsis
- b. Osteomyelitis
- c. Pulmonary embolism
- d. Acute respiratory tract infection

ANS: C

Fat emboli are of greatest concern in individuals with fractures of the long bones. Fat droplets from the marrow are transferred to the general circulation, where they are transported to the lung or brain. This type of embolism usually occurs within the second 12 hours after the injury. Sepsis would manifest with fever and lethargy. Osteomyelitis usually is seen with pain at the site of infection and fever. A child with an acute respiratory tract infection would have nasal congestion, not chest pain.

18. What statement is correct regarding sports injuries during adolescence?

- a. Conditioning does not help prevent many sports injuries.
- b. The increase in strength and vigor during adolescence helps prevent injuries related to fatigue.
- c. More injuries occur during organized athletic competition than during recreational sports participation.
- d. Adolescents may not possess insight and judgment to recognize when a sports activity is beyond their capabilities.

ANS: D

Injuries occur when the adolescents body is not suited to the sport or when he or she lacks the insight and judgment to recognize that an activity exceeds his or her physical abilities. More injuries occur when an adolescents muscles and body systems (respiratory and cardiovascular) are not conditioned to endure physical stress. Injuries do not occur from fatigue but rather from overuse. All sports have the potential for injury to the participant, whether the youngster engages

in serious competition or in sports for recreation. More injuries occur during recreational sports than during organized athletic competition.

19. The middle school nurse is speaking to parents about prevention of injuries as a goal of the physical education program. How should the goal be achieved?

- a. Use of protective equipment at the familys discretion
- b. Education of adults to recognize signs that indicate a risk for injury
- c. Sports medicine program to help student athletes work through overuse injuries
- d. Arrangements for multiple sports to use same athletic fields to accommodate more children

ANS: B

Adults close to sports activities need to be aware of the early warning signs of fatigue, dehydration, and risk for injury. School policy should require mandatory use of protective equipment. Proper sports medicine therapy does not support working through overuse injuries. Too many students involved in different activities create distractions, which contribute to the child losing focus. This is a contributing factor to injury.

20. A young girl has just injured her ankle at school. In addition to notifying the childs parents, what is the most appropriate, immediate action by the school nurse?

- a. Apply ice.
- b. Observe for edema and discoloration.
- c. Encourage child to assume a position of comfort.
- d. Obtain parental permission for administration of acetaminophen or aspirin.

ANS: A

Soft tissue injuries should be iced immediately. In addition to ice, the extremity should be rested, be elevated, and have compression applied. The nurse observes for the edema while placing a cold pack. The applying of ice can reduce the severity of the injury. Maintaining the ankle at a position elevated above the heart is important. The nurse helps the child be comfortable with this requirement. The nurse obtains parental permission for administration of acetaminophen or aspirin after ice and rest are assured.

21. A student athlete was injured during a basketball game. The nurse observes significant swelling. The player states he thought he heard a pop, that the pain is pretty bad, and that the ankle feels as if it is coming apart. Based on this description, the nurse suspects what injury?

- a. Sprain
- b. Fracture
- c. Dislocation
- d. Stress fracture

ANS: A

Sprains account for approximately 75% of all ankle injuries in children. A sprain results when the trauma is so severe that a ligament is either stretched or partially or completely torn by the force created as a joint is twisted or wrenched. Joint laxity is the most valid indicator of the severity of a sprain. A fracture involves the cross-section of the bone. Dislocations occur when the force of stress on the ligaments disrupts the normal positioning of the bone ends. Stress

fractures result from repeated muscular contraction and are seen most often in sports involving repetitive weight bearing such as running, gymnastics, and basketball.

22. An adolescent comes to the school nurse after experiencing shin splints during a track meet. What reassurance should the nurse offer?

- a. Shin splints are expected in runners.
- b. Ice, rest, and nonsteroidal antiinflammatory drugs (NSAIDs) usually relieve pain.
- c. It is generally best to run around and work the pain out.
- d. Moist heat and acetaminophen are indicated for this type of injury.

ANS: B

Shin splints result when the ligaments tear away from the tibial shaft and cause pain. Actions that have an antiinflammatory effect are indicated for shin splints. Ice, rest, and NSAIDs are the usual treatment. Shin splints are rarely serious, but they are not expected, and preventive measures are taken. Rest is important to heal the shin splints. Continuing to place stress on the tibia can lead to further damage.

23. The nurse at a summer camp recognizes the signs of heatstroke in an adolescent girl. Her temperature is 40 C (104 F). She is slightly confused but able to drink water. Nursing care while waiting for transport to the hospital should include what intervention?

- a. Administer antipyretics.
- b. Administer salt tablets.
- c. Apply towels wet with cool water.
- d. Sponge with solution of rubbing alcohol and water.

ANS: C

Heatstroke is a failure of normal thermoregulatory mechanisms. The onset is rapid with initial symptoms of headache, weakness, and disorientation. Immediate care is relocation to a cool environment, removal of clothing, and applying of cool water (wet towels or immersion). Antipyretics are not used because they are metabolized by the liver, which is already not functioning. Salt tablets are not indicated and may be harmful by increasing dehydration. Rubbing alcohol is not used.

24. What is the recommended drink for athletes during practice and competition?

- a. Sports drinks to replace carbohydrates
- b. Cold water for gastrointestinal tract rapid absorption
- c. Carbonated beverages to help with acidbase balance
- d. Enhanced performance carbohydrateelectrolyte drinks

ANS: B

Water is recommended for most athletes, who should drink 4 to 8 oz every 15 to 20 minutes. Cold water facilitates rapid gastric emptying and intestinal absorption. Most carbohydrate sports drinks have 6% to 8% carbohydrate, which can cause gastrointestinal upset. Carbonated beverages are discouraged. There is no evidence that these drinks enhance function.

25. The nurse is teaching the girls varsity sports teams about the female athlete triad. What is essential information to include?

- a. They should take low to moderate calcium to avoid hypercalcemia.

- b. They have strong bones because of the athletic training.
- c. Pregnancy can occur in the absence of menstruation.
- d. A diet high in carbohydrates accommodates increased training.

ANS: C

Sexually active teenagers, regardless of menstrual status, need to consider contraceptive precautions. Increased calcium (1500 mg) is recommended for amenorrheic athletes. The decreased estrogen in girls with the female athlete triad, coupled with potentially inadequate diet, leads to osteoporosis. Diets high in protein and calories are necessary to avoid potentially long-term consequences of intensive, prolonged exercise programs in pubertal girls.

26. Parents are considering treatment options for their 5-year-old child with Legg-Calv-Perthes disease. Both surgical and conservative therapies are appropriate. They are able to verbalize the differences between the therapies when they make what statement?

- a. All therapies require extended periods of bed rest.
- b. Conservative therapy will be required until puberty.
- c. Our child cannot attend school during the treatment phase.
- d. Surgical correction requires a 3- to 4-month recovery period.

ANS: D

Surgical correction involves additional risks of anesthesia, infection, and possibly blood transfusion. The recovery period is only 3 to 4 months rather than the 2 to 4 years of conservative therapies. The use of nonweight-bearing appliances and surgical intervention does not require prolonged bed rest. Conservative therapy is indicated for 2 to 4 years. The child is encouraged to attend school and engage in activities that can be adapted to therapeutic appliances.

MSC: Client Needs: Physiological Integrity

27. A 4-year-old child is placed in Buck extension traction for Legg-Calv-Perthes disease. He is crying with pain as the nurse assesses the skin of his right foot and sees that it is pale with an absence of pulse. What should the nurse do first?

- a. Reposition the child and notify the practitioner.
- b. Notify the practitioner of the changes noted.
- c. Give the child medication to relieve the pain.
- d. Chart the observations and check the extremity again in 15 minutes.

ANS: B

The absence of a pulse and change in color of the foot must be reported immediately for evaluation by the practitioner. This is an emergency condition. Pain medication should be given after the practitioner is notified. The findings should be documented with ongoing assessment.

28. What term is used to describe an abnormally increased convex angulation in the curvature of the thoracic spine?

- a. Scoliosis
- b. Lordosis
- c. Kyphosis

- 
- d. Ankylosis

ANS: C

Kyphosis is an abnormally increased convex angulation in the curvature of the thoracic spine. Scoliosis is a complex spinal deformity usually involving lateral curvature, spinal rotation causing rib asymmetry, and thoracic hypokyphosis. Lordosis is an accentuation of the cervical or lumbar curvature beyond physiologic limits. Ankylosis is the immobility of a joint.

29. When does idiopathic scoliosis become most noticeable?

- 
- a. In the newborn period
- 
- b. When the child starts to walk
- 
- c. During the preadolescent growth spurt
- 
- d. During adolescence

ANS: C

Idiopathic scoliosis is most noticeable during the preadolescent growth spurt. It is seldom apparent before age 10 years.

30. A preadolescent has been diagnosed with scoliosis. The planned therapy is the use of a thoracolumbosacral orthotic. The preadolescent asks how long she will have to wear the brace.

What is the appropriate response by the nurse?

- 
- a. For as long as you have been told.
- 
- b. Most preadolescents use the brace for 6 months.
- 
- c. Until your vertebral column has reached skeletal maturity.
- 
- d. It will be necessary to wear the brace for the rest of your life.

ANS: C

Bracing can halt or slow the progress of most curvatures. They must be used continuously until the child reaches skeletal maturity. Telling the child for as long as you have been told does not answer the child's question and does not promote involvement in care. Six months is unrealistic because skeletal maturity is not reached until adolescence. When skeletal growth is complete, bracing is no longer effective.

31. A 17-year-old patient is returning to the surgical unit after Luque instrumentation for scoliosis repair. In addition to the usual postoperative care, what additional intervention will be needed?

- 
- a. Position changes are made by log rolling.
- 
- b. Assistance is needed to use the bathroom.
- 
- c. The head of the bed is elevated to minimize spinal headache.
- 
- d. Passive range of motion is instituted to prevent neurologic injury.

ANS: A

After scoliosis repair using a Luque procedure, the adolescent is turned by log rolling to prevent damage to the fusion and instrumentation. The patient is kept flat in bed for the first 12 hours and is not ambulatory until the second or third postoperative day. A urinary catheter is placed. The head of the bed is not elevated until the second postoperative day. Range of motion exercises are begun on the second postoperative day.

32. What is the primary method of treating osteomyelitis?

- a. Joint replacement
- b. Bracing and casting
- c. Intravenous antibiotic therapy
- d. Long-term corticosteroid therapy

ANS: C

Osteomyelitis is an infection of the bone, most commonly caused by *Staphylococcus aureus* infection. The treatment of choice is antibiotics. Joint replacement, bracing and casting, and long-term corticosteroid therapy are not indicated for infectious processes.

33. What nursing intervention is most appropriate when caring for the child with osteomyelitis?

- a. Encourage frequent ambulation.
- b. Administer antibiotics with meals.
- c. Move and turn the child carefully and gently to minimize pain.
- d. Provide active range of motion exercises for the affected extremity.

ANS: C

During the acute phase, any movement of the affected limb causes discomfort to the child. Careful positioning with the affected limb supported is necessary. Weight bearing is not permitted until healing is well under way to avoid pathologic fractures. Intravenous antibiotics are used initially. Food is not necessary with parenteral therapy. Active range of motion would be painful for the child.

34. What statement is true concerning osteogenesis imperfecta (OI)?

- a. It is easily treated.
- b. It is an inherited disorder.
- c. Braces and exercises are of no therapeutic value.
- d. Later onset disease usually runs a more difficult course.

ANS: B

OI is a heterogeneous, autosomal dominant disorder characterized by fractures and bone deformity. Treatment is primarily supportive. Several investigational therapies are being evaluated. The primary goal of therapy is rehabilitation. Lightweight braces and splints help support limbs, prevent fractures, and aid in ambulation. The disease is present at birth. Prognosis is affected by the type of OI.

TOP: Nursing Process: Assessment MSC: Client Needs: Physiological Integrity

35. What is a major goal for the therapeutic management of juvenile idiopathic arthritis (JIA)?

- a. Control pain and preserve joint function.
- b. Minimize use of joint and achieve cure.
- c. Prevent skin breakdown and relieve symptoms.
- d. Reduce joint discomfort and regain proper alignment.

ANS: A

The goals of therapy are to control pain, preserve joint range of motion and function, minimize the effects of inflammation, and promote normal growth and development. There is no cure for



JIA at this time. Skin breakdown is not an issue for most children with JIA. Symptom relief and reduction in discomfort are important. When the joints are damaged, it is often irreversible.

36. A child with juvenile idiopathic arthritis (JIA) is started on a nonsteroidal antiinflammatory drug (NSAID). What nursing consideration should be included?

- a. Monitor heart rate.
- b. Administer NSAIDs between meals.
- c. Check for abdominal pain and bloody stools.
- d. Expect inflammation to be gone in 3 or 4 days.

ANS: C

NSAIDs are the first-line drugs used in JIA. Potential side effects include gastrointestinal (GI), renal, and hepatic side effects. The child is at risk for GI bleeding and elevated blood pressure. The heart rate is not affected by this drug class. NSAIDs should be given with meals to minimize gastrointestinal problems. The antiinflammatory response usually takes 3 weeks before effectiveness can be evaluated.

37. What is an important nursing consideration when caring for a child with juvenile idiopathic arthritis (JIA)?

- a. Apply ice packs to relieve acute swelling and pain.
- b. Administer acetaminophen to reduce inflammation.
- c. Teach the child and family correct administration of medications.
- d. Encourage range of motion exercises during periods of inflammation.

ANS: C

The management of JIA is primarily pharmacologic. The family should be instructed regarding administration of medications and the value of a regular schedule of administration to maintain a satisfactory blood level in the body. They need to know that nonsteroidal antiinflammatory drugs should not be given on an empty stomach and to be alert for signs of toxicity. Warm, moist heat is best for relieving stiffness and pain. Acetaminophen does not have antiinflammatory effects. Range of motion exercises should not be done during periods of inflammation.

38. What needs to be included as essential teaching for adolescents with systemic lupus erythematosus (SLE)?

- a. High calorie diet because of increased metabolic needs
- b. Home schooling to decrease the risk of infections
- c. Protection from sun and fluorescent lights to minimize rash
- d. Intensive exercise regimen to build up muscle strength and endurance

ANS: C

The photosensitive rash is a major concern for individuals with SLE. Adolescents who spend time outdoors need to use sunscreens with a high SPF, hats, and clothing. Uncovered fluorescent lights can also cause a photosensitivity reaction. The diet should be sufficient in calories and nutrients for growth and development. The use of steroids can cause increased hunger, resulting in weight gain. This can present additional emotional issues for the adolescent. Normal functions should be maximized. The individual with SLE is encouraged to attend school and participate in peer activities. A balance of rest and exercise is important; excessive exercise is avoided.

39. The nurse is teaching the parent of a 4-year-old child with a cast on the arm about care at home. What statement by the parent indicates a correct understanding of the teaching?

- a. I should have the affected limb hang in a dependent position.
- b. I will use an ice pack to relieve the itching.
- c. I should avoid keeping the injured arm elevated.
- d. I will expect the fingers to be swollen for the next 3 days.

ANS: B

Teaching the parent to use an ice pack to relieve the itching is an important aspect when planning discharge for a child with a cast. The affected limb should not be allowed to hang in a dependent position for more than 30 minutes. The affected arm should be kept elevated as much as possible. If there is swelling or redness of the fingers, the parent should notify the health care provider.

40. The nurse is teaching the parents of a 1-month-old infant with developmental dysplasia of the hip about preventing skin breakdown under the Pavlik harness. What statement by the parent would indicate a correct understanding of the teaching?

- a. I should gently massage the skin under the straps once a day to stimulate circulation.
- b. I will apply a lotion for sensitive skin under the straps after my baby has been given a bath to prevent skin irritation.
- c. I should remove the harness several times a day to prevent contractures.
- d. I will place the diaper over the harness, preferably using a superabsorbent disposable diaper that is relatively thin.

ANS: A

To prevent skin breakdown with an infant who has developmental dysplasia of the hip and is in a Pavlik harness, the parent should gently massage the skin under the straps once a day to stimulate circulation. The parent should not apply lotions or powder because this could irritate the skin. The parent should not remove the harness, except during a bath, and should place the diaper under the straps.

41. A neonate is born with mild clubfeet. When the parents ask the nurse how this will be corrected, what should the nurse explain?

- a. Traction is tried first.
- b. Surgical intervention is needed.
- c. Frequent, serial casting is tried first.
- d. Children outgrow this condition when they learn to walk.

ANS: C

Serial casting is begun shortly after birth, before discharge from the nursery. Successive casts allow for gradual stretching of skin and tight structures on the medial side of the foot.

Manipulation and casting of the leg are repeated frequently (every week) to accommodate the rapid growth of early infancy. Serial casting is the preferred treatment. Surgical intervention is done only if serial casting is not successful. Children do not improve without intervention.

42. An infant is born with one lower limb deficiency. When is the optimum time for the child to be fitted with a functional prosthetic device?

- a. As soon as possible after birth
- b. When the infant is developmentally ready to stand up
- c. At about ages 12 to 15 months, when most children are walking
- d. At about 4 years, when the healthy limb is not growing so rapidly

ANS: B

An infant should be fitted with a functional prosthetic leg when the infant is developmentally ready to pull to a standing position. When the infant begins limb exploration, a soft prosthesis can be used. The child should begin using the prosthesis as part of his or her normal development. This will match the infants motor readiness.

43. The nurse knows that parents need further teaching with regard to the treatment of congenital clubfoot when they state what?

- a. Well keep the cast dry.
- b. Were happy this is the only cast our baby will need.
- c. Well watch for any swelling of the foot while the cast is on.
- d. Were getting a special car seat to accommodate the cast.

ANS: B

The common approach to clubfoot management and treatment is the Ponseti method. Serial casting is begun shortly after birth. Weekly gentle manipulation and stretching of the foot along with placement of serial long-leg casts allow for gradual repositioning of the foot. The extremity or extremities are casted until maximum correction is achieved, usually within 6 to 10 weeks. If parents state that this is the only cast the infant will need, they need further teaching.

44. A child has just returned from surgery for repair of a fractured femur. The child has a long-leg cast on. The toes on the leg with the cast are edematous, but they have color, sensitivity, and movement. What action should the nurse take?

- a. Call the health care provider to report the edema.
- b. Elevate the foot and leg on pillows.
- c. Apply a warm moist pack to the foot.
- d. Encourage movement of toes.

ANS: B

During the first few hours after a cast is applied, the chief concern is that the extremity may continue to swell to the extent that the cast becomes a tourniquet, shutting off circulation and producing neurovascular complications (compartment syndrome). One measure to reduce the likelihood of this problem is to elevate the body part and thereby increase venous return. The health care provider does not need to be notified because edema is expected and warm moist packs will not decrease the edema. The child should move the toes, but that will not help reduce the edema.

45. After spinal fusion surgery the nurse should check for signs of what?

- a. Seizure activity
- b. Increased intracranial pressure
- c. Impaired color, sensitivity, and movement to the lower extremities

- d. Impaired pupillary response during neurologic checks

ANS: C

In addition to the usual postoperative assessments of wound, circulation, and vital signs, the neurologic status of the patient's extremities requires special attention. Prompt recognition of any neurologic impairment is imperative because delayed paralysis may develop that requires surgical intervention.

46. What should the nurse plan for an immobilized child in cervical traction to prevent deep vein thrombosis (DVT)?

- a. Elevate the child's legs.
- b. Place a foot cradle on the bed.
- c. Place a pillow under the child's knees.
- d. Assist the child to dorsiflex the feet and rotate the ankles.

ANS: D

For a child who is immobilized, circulatory stasis and DVT development are prevented by instructing patients to change positions frequently, dorsiflex their feet and rotate the ankles, sit in a bedside chair periodically, or ambulate several times daily. Elevating the legs or placing a foot cradle on the bed will not prevent DVTs. A pillow under the knee would impair circulation, not improve it.

47. The nurse is teaching a child with a cast about cast removal. What should the nurse teach the child about cast removal?

- a. The cast cutter will be a quiet machine.
- b. You will feel cold as the cast is removed.
- c. You will feel a tickly sensation as the cast is removed.
- d. The cast cutter cuts through the cast like a circular saw.

ANS: C

Cutting the cast to remove it or to relieve tightness is frequently a frightening experience for children. They fear the sound of the cast cutter and are terrified that their flesh, as well as the cast, will be cut. Because it works by vibration, a cast cutter cuts only the hard surface of the cast. The oscillating blade vibrates back and forth very rapidly and will not cut when placed lightly on the skin. Children have described it as producing a tickly sensation.

48. A 3-year-old child has a femoral shaft fracture. The nurse recognizes that the approximate healing time for this child is how long?

- a. 2 weeks
- b. 4 weeks
- c. 6 weeks
- d. 8 weeks

ANS: B

The approximate healing times for a femoral shaft fracture are as follows: neonatal period, 2 to 3 weeks; early childhood, 4 weeks; later childhood, 6 to 8 weeks; and adolescence, 8 to 12 weeks.

49. The nurse is teaching infant care to parents with an infant who has been diagnosed with osteogenesis imperfecta (OI). What should the nurse include in the teaching session?

- a. Bisphosphonate therapy is not beneficial for OI.
- b. Physical therapy should be avoided as it may cause damage to bones.
- c. Lift the infant by the buttocks, not the ankles, when changing diapers.
- d. The infant should meet expected gross motor development without assistive devices.

ANS: C

Infants and children with this disorder require careful handling to prevent fractures. They must be supported when they are being turned, positioned, moved, and held. Even changing a diaper may cause a fracture in severely affected infants. These children should never be held by the ankles when being diapered but should be gently lifted by the buttocks or supported with pillows. Bisphosphonate and physical therapy are beneficial for OI. Lightweight braces will be used when the child starts to ambulate.

#### **MULTIPLE RESPONSE**

1. In teaching a 16-year-old adolescent who was recently diagnosed with systemic lupus erythematosus (SLE), what statements should the nurse include? *(Select all that apply.)*

- a. You should use a moisturizer with a sun protection factor (SPF) of 30.
- b. You should avoid pregnancy because this can cause a flare-up.
- c. You should not receive any immunizations in the future.
- d. You may need to be on a low-protein, high-carbohydrate diet.
- e. You should expect to lose weight while taking steroids.
- f. You may need to modify your daily recreational activities.

ANS: A, B, F

Teaching for an adolescent with SLE should foster adaptation and self-advocacy and include using a moisturizer with an SPF of 30, avoiding pregnancy because it can produce a flare-up, and modifying recreational activities but continuing with daily exercise as an essential part of the treatment plan. The adolescent should continue to receive immunizations as scheduled, should expect to gain weight while on steroid therapy, and would not have a specialized diet.

2. The nurse is caring for a child immobilized because of Russel traction. What interventions should the nurse implement to prevent renal calculi? *(Select all that apply.)*

- a. Monitor output.
- b. Encourage the patient to drink apple juice.
- c. Encourage milk intake.
- d. Ensure adequate fluids.
- e. Encourage the patient to drink cranberry juice.

ANS: A, D, E

To prevent renal calculi in a child who is immobilized, a nurse should monitor output; ensure adequate fluids; and encourage cranberry juice, which acidifies urine. Apple juice and milk alkalize the urine, so they should not be encouraged.

3. The nurse is assisting with application of a synthetic cast on a child with a fractured humerus. What are the advantages of a synthetic cast over a plaster of Paris cast? *(Select all that apply.)*

- a. Less bulky

- b. Drying time is faster
- c. Molds readily to body part
- d. Permits regular clothing to be worn
- e. Can be cleaned with small amount of soap and water

ANS: A, B, D, E

The advantages of synthetic casts over plaster of Paris casts are that they are less bulky, dry faster, permit regular clothes to be worn, and can be cleaned. Plaster of Paris casts mold readily to a body part, but synthetic casts do not mold easily to body parts.

4. A child has had a short-arm synthetic cast applied. What should the nurse teach to the child and parents about cast care? (*Select all that apply.*)

- a. Relieve itching with heat.
- b. Elevate the arm when resting.
- c. Observe the fingers for any evidence of discoloration.
- d. Do not allow the child to put anything inside the cast.
- e. Examine the skin at the cast edges for any breakdown.

ANS: B, C, D, E

Cast care involves elevating the arm, observing the fingers for evidence of discoloration, not allowing the child to put anything inside the cast, and examining the skin at the edges of the cast for any breakdown. Ice, not heat, should be applied to relieve itching.

5. The nurse is conducting preoperative teaching to parents and their child about an external fixation device. What should the nurse include in the teaching session? (*Select all that apply.*)

- a. Pin care
- b. Crutch walking
- c. Modifications in activity
- d. Observing pin sites for infection
- e. Full weight bearing will be allowed after 24 hours

ANS: A, B, C, D

The device is attached surgically by securing a series of external full or half rings to the bone with wires. Children and parents should be instructed in pin care, including observation for infection and loosening of pins. Partial weight bearing is allowed, and the child needs to learn to walk with crutches. Alterations in activity include modifications at school and in physical education. Full weight bearing is not allowed until the distraction is completed and bone consolidation has occurred.

6. The nurse is caring for a 14-year-old child with systemic lupus erythematosus (SLE). What clinical manifestations should the nurse expect to observe? (*Select all that apply.*)

- a. Arthralgia
- b. Weight gain
- c. Polycythemia
- d. Abdominal pain

- 
- e. Glomerulonephritis

ANS: A, D, E

Clinical manifestations of SLE include arthralgia, abdominal pain, and glomerulonephritis. Weight loss, not gain, and anemia, not polycythemia, are manifestations of SLE.

TOP: Nursing Process: Assessment MSC: Client Needs: Physiological Integrity

7. The nurse is caring for a 14-year-old child with juvenile idiopathic arthritis (JIA). What clinical manifestations should the nurse expect to observe? *(Select all that apply.)*

- 
- a. Erythema over joints
- 
- b. Soft tissue contractures
- 
- c. Swelling in multiple joints
- 
- d. Morning stiffness of the joints
- 
- e. Loss of motion in the affected joints

ANS: B, C, D, E

Whether single or multiple joints are involved, stiffness, swelling, and loss of motion develop in the affected joints in JIA. The swelling results from soft tissue edema, joint effusion, and synovial thickening. The affected joints may be warm and tender to the touch, but it is not uncommon for pain not to be reported. The limited motion early in the disease is a result of muscle spasm and joint inflammation; later it is caused by ankylosis or soft tissue contracture. Morning stiffness of the joint(s) is characteristic and present on arising in the morning or after inactivity. Erythema is not typical, and a warm, painful, red joint is always suspect for infection.

## Chapter 28: Alterations in Neuromuscular Function

### MULTIPLE CHOICE

1. A nurse is explaining to parents how the central nervous system of a child differs from that of an adult. Which statement accurately describes these differences?

- 
- a. The infant has 150 milliliters of cerebrospinal fluid compared with 50 milliliters in the adult.
- 
- b. Papilledema is a common manifestation of increased intracranial pressure in the very young child.
- 
- c. The brain of a term infant weighs less than half of the weight of the adult brain.
- 
- d. Coordination and fine motor skills develop as myelination of peripheral nerves progresses.

ANS: D

Peripheral nerves are not completely myelinated at birth. As myelination progresses, so does the child's coordination and fine muscle movements. An infant has about 50 milliliters of cerebrospinal fluid compared with 150 milliliters in an adult. Papilledema rarely occurs in infancy because open fontanelles and sutures can expand in the presence of increased intracranial pressure. The brain of the term infant is two-thirds the weight of an adult's brain.

2. A nurse is assessing a 1-year-old child for increased intracranial pressure (ICP). Which sign should the nurse assess for with this age of child?

- 
- a. Headache

- b. Bulging fontanel
- c. Tachypnea
- d. Increase in head circumference

ANS: A

Headaches are a clinical manifestation of increased ICP in children. A change in the child's normal behavior pattern may be an important early sign of increased ICP. A bulging fontanel is a manifestation of increased ICP in infants. A 10-year-old child would have a closed fontanel. A change in respiratory pattern is a late sign of increased ICP. Cheyne-Stokes respiration may be evident. This refers to a pattern of increasing rate and depth of respirations followed by a decreasing rate and depth with a pause of variable length. By 10 years of age, cranial sutures have fused so that head circumference will not increase in the presence of increased ICP.

3. The nurse should give a child who is to have magnetic resonance imaging (MRI) of the brain which information?

- a. Your head will be restrained.
- b. You will have to drink a special fluid before the test.
- c. You will have to lie flat after the test is finished.
- d. You will have electrodes placed on your head with glue.

ANS: A

To reduce fear and enhance cooperation during the MRI, the child should be made aware that his head will be restricted to obtain accurate information. Drinking fluids is usually done for gastrointestinal procedures. A child would lie flat after a lumbar puncture, not during an MRI. Electrodes are attached to the head for an electroencephalogram.

4. A child with spina bifida is being admitted to the hospital for a shunt revision? The nurse admitting the child anticipates which type of precautions to be ordered for the child?

- a. Latex
- b. Bleeding
- c. Seizure
- d. Isolation

ANS: A

Children with spina bifida are at high risk for developing latex allergies because of frequent exposure to latex during catheterizations, shunt placements, and other operations. The child with spina bifida does not have a risk for bleeding. Not all children with spina bifida are at risk for seizures and isolation would not be indicated in a child being admitted for a shunt revision.

5. Nursing care of the infant who has had a myelomeningocele repair should include which intervention?

- a. Securely fastening the diaper
- b. Measurement of pupil size
- c. Measurement of head circumference
- d. Administration of seizure medications

ANS: C



Head circumference measurement is essential because hydrocephalus can develop in these infants. A diaper should be placed under the infant but not fastened. Keeping the diaper open facilitates frequent cleaning and decreases the risk for skin breakdown. Pupil size measurement is usually not necessary. Head circumference measurement is essential because hydrocephalus can develop in these infants.

6. When a 2-week-old infant is seen for irritability, poor appetite, and rapid head growth with an observable distended scalp vein, the nurse recognizes these signs as indicative of which condition?

- a. Hydrocephalus
- b. SIADH (syndrome of inappropriate antidiuretic hormone)
- c. Cerebral palsy
- d. Reyes syndrome

ANS: A

The combination of signs is strongly suggestive of hydrocephalus. SIADH would not present in this way. The child would have decreased urination, hypertension, weight gain, fluid retention, hyponatremia, and increased urine specific gravity. The manifestations of cerebral palsy vary but may include persistence of primitive reflexes, delayed gross motor development, and lack of progression through developmental milestones. Reyes syndrome is associated with an antecedent viral infection with symptoms of malaise, nausea, and vomiting. Progressive neurological deterioration occurs.

7. A child is admitted to the hospital with spastic cerebral palsy. The nurse will assess for which manifestations associated with this disorder?

- a. Tremulous movements at rest and with activity
- b. Sudden jerking movement caused by stimuli
- c. Writhing, uncontrolled, involuntary movements
- d. Clumsy, uncoordinated movements

ANS: B

Spastic cerebral palsy, the most common type of cerebral palsy, will manifest with hypertonicity and increased deep tendon reflexes. The child's muscles are very tight and any stimuli may cause a sudden jerking movement. Tremulous movements are characteristic of rigid/tremor/athetoid cerebral palsy. Slow, writhing, uncontrolled, involuntary movements occur with athetoid or dyskinetic cerebral palsy. Clumsy movements and loss of coordination, equilibrium, and kinesthetic sense occur in ataxic cerebral palsy.

8. Which finding in an analysis of cerebrospinal fluid (CSF) is consistent with a diagnosis of bacterial meningitis?

- a. CSF appears cloudy.
- b. CSF pressure is decreased.
- c. Few leukocytes are present.
- d. Glucose level is increased compared with blood.

ANS: A

In acute bacterial meningitis, the CSF is cloudy to milky or yellowish in color. The CSF pressure is usually increased in acute bacterial meningitis. Many polymorphonuclear cells are present in

CSF with acute bacterial meningitis. The CSF glucose level is usually decreased compared with the serum glucose level.

9. Which would be an appropriate nursing intervention for the child with a tension headache?

- a. Assess for an aura.
- b. Maintain complete bed rest.
- c. Administer pharmacological headache relief measures.
- d. Assess for nausea and vomiting.

ANS: C

Administration of pharmacological techniques is appropriate to assist in the management of a tension headache. An aura is associated with migraines but not with tension headaches. Complete bed rest is not required. Nausea and vomiting are associated with a migraine but not with tension headaches.

10. How should the nurse explain positioning for a lumbar puncture to a 5-year-old child?

- a. You will be on your knees with your head down on the table.
- b. You will be able to sit up with your chin against your chest.
- c. You will be on your side with the head of your bed slightly raised.
- d. You will lie on your side and bend your knees so that they touch your chin.

ANS: D

The child should lie on her side with knees bent and chin tucked into the knees. This position exposes the area of the back for the lumbar puncture. The knee-chest position is not appropriate for a lumbar puncture. An infant can be placed in a sitting position with the infant facing the nurse and the head steadied against the nurses body. A side-lying position with the head of the bed elevated is not appropriate for a lumbar puncture.

11. A mother reports that her child has episodes in which he appears to be staring into space. This behavior is characteristic of which type of seizure?

- a. Absence
- b. Atonic
- c. Tonic-clonic
- d. Simple partial

ANS: A

Absence seizures are very brief episodes of altered awareness. The child has a blank expression. Atonic seizures cause an abrupt loss of postural tone, loss of consciousness, confusion, lethargy, and sleep. Tonic-clonic seizures involve sustained generalized muscle contractions followed by alternating contraction and relaxation of major muscle groups. There is no change in level of consciousness with simple partial seizures. Simple partial seizures consist of motor, autonomic, or sensory symptoms.

12. What is the best response to a father who tells the nurse that his son daydreams at home and his teacher has observed this behavior at school?

- a. Your son must have an active imagination.
- b. Can you tell me exactly how many times this occurs in one day?

- c. Tell me about your sons activity when you notice the daydreams.
- d. He is probably getting tired and needs a rest.

ANS: C

The daydream episodes are suggestive of absence seizures and data about activity associated with the daydreams should be obtained. Suggesting that the child has an active imagination does not address the child's symptoms or the father's concern. The number of times the behavior occurs is consistent with absence seizures, which can occur one after the other several times a day. Determining an exact number of absence seizures is not as useful as learning about behavior before the seizure that might have precipitated seizure activity. Blaming the seizures on rest ignores both the child's symptoms and the father's concern about the daydreaming behavior.

13. The nurse teaches parents to alert their healthcare provider about which adverse effect when a child receives valproic acid (Depakene) to control generalized seizures?

- a. Weight loss
- b. Bruising
- c. Anorexia
- d. Drowsiness

ANS: B

Thrombocytopenia is an adverse effect of valproic acid. Parents should be alert for any unusual bruising or bleeding. Weight gain, not loss or anorexia, is a side effect of valproic acid.

Drowsiness is not a side effect of valproic acid, although it is associated with other anticonvulsant medications.

14. A child with a head injury sleeps unless aroused, and when aroused responds briefly before falling back to sleep. Which term corresponds to this child's level of consciousness?

- a. Disoriented
- b. Obtunded
- c. Lethargic
- d. Stuporous

ANS: B

Obtunded describes an individual who sleeps unless aroused and once aroused has limited interaction with the environment. Disoriented refers to the lack of ability to recognize place or person. An individual is lethargic when he or she awakens easily but exhibits limited responsiveness. Stupor refers to requiring considerable stimulation to arouse the individual.

15. What is the most appropriate nursing action when a child is in the tonic phase of a generalized tonic-clonic seizure?

- a. Guide the child to the floor if he is standing and go for help.
- b. Turn the child's body on his side.
- c. Place a padded tongue blade between the teeth.
- d. Quickly slip soft restraints on the child's wrists.

ANS: B

Positioning the child on his side will prevent aspiration. The child should be placed on a soft surface if he is not in bed; however, it would be inappropriate to leave the child during the

seizure. Nothing should be inserted into the child's mouth during a seizure to prevent injury to the mouth, gums, or teeth. Restraints could cause injury. Sharp objects and furniture should be moved out of the way to prevent injury.

16. After a tonic-clonic seizure, it would not be unusual for a child to display which symptom?

- a. Irritability and hunger
- b. Lethargy and confusion
- c. Nausea and vomiting
- d. Nervousness and excitability

ANS: B

In the period after a tonic-clonic seizure, the child may be confused and lethargic. Some children may sleep for a period of time. Neither irritability nor hunger is typical of the period after a tonic-clonic seizure. Nausea and vomiting are not expected reactions in the postictal period. The child will more likely be confused and lethargic after a tonic-clonic seizure.

17. What should the nurse teach parents when the child is taking phenytoin (Dilantin) to control seizures?

- a. The child should use a soft toothbrush and floss his teeth after every meal.
- b. The child will require monitoring of his liver function while taking this medication.
- c. Dilantin should be taken with food because it causes gastrointestinal distress.
- d. The medication can be stopped when the child has been seizure free for 1 month.

ANS: A

A side effect of Dilantin is gingival hyperplasia. Good oral hygiene will minimize this adverse effect. The child receiving Depakene (valproic acid) should have liver function studies because this anticonvulsant may cause hepatic dysfunction. Dilantin has not been found to cause gastrointestinal upset. The medication can be taken without food. Anticonvulsants should never be stopped suddenly or without consulting the physician. Such action could result in seizure activity.

18. What is the most appropriate nursing response to the father of a newborn infant with myelomeningocele who asks about the cause of this condition?

- a. One of the parents carries a defective gene that causes myelomeningocele.
- b. A deficiency in folic acid in the father is the most likely cause.
- c. Offspring of parents who have a spinal abnormality are at greater risk for myelomeningocele.
- d. There may be no definitive cause identified.

ANS: D

The etiology of most neural tube defects is unknown in most cases. There may be a genetic predisposition or a viral origin, and the disorder has been linked to maternal folic acid deficiency; however, the actual cause has not been determined. The exact cause of most cases of neural tube defects is unknown. There may be a genetic predisposition, but no pattern has been identified. Folic acid deficiency in the mother has been linked to neural tube defect. There is no evidence that children who have parents with spinal problems are at greater risk for neural tube defects.

19. Which assessment noted in an infant 1 day after placement of a ventriculoperitoneal shunt is indicative of surgical complications?

- a. Hypoactive bowel sounds
- b. Congestion in upper airways
- c. Increasing lethargy
- d. Mild incisional pain

ANS: C

A decreasing level of consciousness indicates a problem with shunt function and should be reported immediately to the neurosurgeon. Peristalsis is depressed during surgery. Hypoactive bowel sounds may be evident after surgery as peristalsis returns to its preoperative function. Congestion in the upper airways may be evident after surgery. Mild incisional pain is a normal finding in the postoperative period.

20. Which change in vital signs should alert the nurse to increased intracranial pressure (ICP) in a child with a head injury?

- a. Rapid, shallow breathing
- b. Irregular, rapid heart rate
- c. Increased diastolic pressure with narrowing pulse pressure
- d. Confusion and altered mental status

ANS: D

The child with a head injury may have confusion and altered mental status, a change in vital signs, retinal hemorrhage, hemiparesis, and papilledema. Respiratory changes occur with increased intracranial pressure. One pattern that may be evident is Cheyne-Stokes respiration. This pattern of breathing is characterized by an increasing rate and depth, then a decreasing rate and depth, with a pause of variable length. Temperature elevation may occur in children with increased intracranial pressure. Changes in blood pressure occur, but the diastolic pressure does not increase, nor is there a narrowing of pulse pressure.

21. The nurse should expect a child who has frequent tension-type headaches to describe his headache pain with which statement?

- a. There is a rubber band squeezing my head.
- b. Its a throbbing pain over my left eye.
- c. My headaches are worse in the morning and get better later in the day.
- d. I have a stomachache and a headache at the same time.

ANS: A

The child who has tension-type headaches may describe the pain as a band-like tightness or pressure, tight neck muscles, or soreness in the scalp. A common symptom of migraines is throbbing headache pain, typically on one side of the eye. A headache that is worse in the morning and improves throughout the course of the day is typical of increased intracranial pressure. Abdominal pain may accompany headache pain in migraines.

22. A nurse is performing a Glasgow Coma Scale assessment. Which assessment should the nurse not include?

- a. Eye opening
- b. Verbal response

---

c. Sensory response

d. Motor response

ANS: C

Sensation is not a component of the Glasgow Coma Scale. The nurse would assess eye opening, verbal response, and motor response.

23. Which statement made by an adolescent indicates an understanding about factors that can trigger migraine headaches?

a. I should avoid loud noises because this is a common migraine trigger.

b. Exercise can cause a migraine. I guess I won't have to take gym anymore.

c. I think I'll get a migraine if I go to bed at 9 PM on week nights.

d. I am learning to relax because I get headaches when I am worried about stuff.

ANS: D

Stress can trigger migraines. Relaxation therapy can help the adolescent control stress and headaches. Other precipitating factors in addition to stress include poor diet, food sensitivities, and flashing lights. Visual stimuli, not auditory stimuli, are known to be a common trigger for migraines. Exercise is not a trigger for migraines. The adolescent needs regular physical exercise. Altered sleep patterns and fatigue are common triggers for migraine headaches. Going to bed at 9 PM should allow an adolescent plenty of sleep to prevent fatigue.

24. What is the priority nursing intervention for the child with ascending paralysis as a result of Guillain-Barré syndrome (GBS)?

a. Immunosuppressive medications

b. Respiratory assessment

c. Passive range-of-motion exercises

d. Anticoagulant therapy

ANS: B

Special attention to respiratory status is needed because most deaths from GBS are attributed to respiratory failure. Respiratory support is necessary if the respiratory system becomes compromised and muscles weaken and become flaccid. Children with rapidly progressing paralysis are treated with intravenous immunoglobulins for several days. Administering this infusion is not the nursing priority. The child with GBS is at risk for complications of immobility. Performing passive range-of-motion exercises is an appropriate nursing intervention, but not the priority intervention. Anticoagulant therapy may be initiated because the risk of pulmonary embolus as a result of deep vein thrombosis is always a threat. This would not be the priority nursing intervention.

25. A child is brought to the emergency department in generalized tonic-clonic status epilepticus. Which medication should the nurse expect to be given initially in this situation?

a. Clorazepate dipotassium (Tranxene)

b. Fosphenytoin (Cerebyx)

c. Phenobarbital

d. Lorazepam (Ativan)

ANS: D

Lorazepam or diazepam is given intravenously to control generalized tonic-clonic status epilepticus and may also be used for seizures lasting more than 5 minutes. Clorazepate dipotassium (Tranxene) is indicated for cluster seizures. It can be given orally. Fosphenytoin and phenobarbital can be given intravenously as a second round of medication if seizures continue.

26. What should be the nurses first action when a child with a head injury complains of double vision and a headache and then vomits?

- a. Immobilize the child's neck.
- b. Report this information to the physician.
- c. Darken the room and put a cool cloth on the child's forehead.
- d. Restrict the child's oral fluid intake.

ANS: B

Any indication of increased intracranial pressure should be promptly reported to the physician. Stabilizing the child's neck does not address the child's symptoms. Darkening the room and putting a cool cloth on the child's forehead may facilitate the child's comfort. It would not be the nurse's first action. The child's episode of vomiting does not necessitate a fluid restriction.

### **MULTIPLE RESPONSE**

1. Which interventions should the nurse perform if a child is having a tonic-clonic seizure?

Select all that apply.

- a. Place a padded tongue blade in the child's mouth.
- b. Place the child in a supine position.
- c. Time the seizure.
- d. Restrain the child.
- e. Stay with the child.
- f. Loosen the child's clothing.

ANS: C, E, F

As a seizure begins the nurse should look at his or her watch and time the seizure. The nurse should protect the child from injury by loosening clothing at the neck and turning the child gently onto the side, removing any obstacles in the child's environment. Do not restrain the child or insert any object into the child's mouth.

2. A nurse should expect which cerebral spinal fluid (CSF) laboratory results on a child diagnosed with bacterial meningitis? Select all that apply.

- a. Elevated white blood count (WBC).
- b. Decreased protein
- c. Decreased glucose
- d. Cloudy in color
- e. Increase in red blood cells (RBC).

ANS: A, C, D

The CSF laboratory results for bacterial meningitis include elevated WBC counts, cloudy or milky in color, and decreased glucose. The protein is elevated and there should be no RBCs present. RBCs are present when the tap was traumatic.

## Chapter 29: Alterations in Integumentary Function

### Question 1

**Type:** MCSA

The nurse is planning care for a 3-month-old infant diagnosed with eczema. Which should be the focus of the nurses care for this infant?

1. Maintaining adequate nutrition
2. Keeping the baby content
3. Preventing infection of lesions
4. Applying antibiotics to lesions

**Correct Answer:** 3

**Rationale 1:** Nursing care should focus on preventing infection of lesions. Due to impaired skin-barrier function and cutaneous immunity, an infant with eczema is at greater risk for the development of skin infections by organisms. Maintaining adequate nutrition and keeping the infant content are not as high a priority. Antibiotics are not routinely applied to the lesions.

**Rationale 2:** Nursing care should focus on preventing infection of lesions. Due to impaired skin-barrier function and cutaneous immunity, an infant with eczema is at greater risk for the development of skin infections by organisms. Maintaining adequate nutrition and keeping the infant content are not as high a priority. Antibiotics are not routinely applied to the lesions.

**Rationale 3:** Nursing care should focus on preventing infection of lesions. Due to impaired skin-barrier function and cutaneous immunity, an infant with eczema is at greater risk for the development of skin infections by organisms. Maintaining adequate nutrition and keeping the infant content are not as high a priority. Antibiotics are not routinely applied to the lesions.

**Rationale 4:** Nursing care should focus on preventing infection of lesions. Due to impaired skin-barrier function and cutaneous immunity, an infant with eczema is at greater risk for the development of skin infections by organisms. Maintaining adequate nutrition and keeping the infant content are not as high a priority. Antibiotics are not routinely applied to the lesions.

**Global Rationale:** Nursing care should focus on preventing infection of lesions. Due to impaired skin-barrier function and cutaneous immunity, an infant with eczema is at greater risk for the development of skin infections by organisms. Maintaining adequate nutrition and keeping the infant content are not as high a priority. Antibiotics are not routinely applied to the lesions.

**Cognitive Level:** Applying

**Client Need:** Physiological Integrity

**Client Need Sub:** Reduction of Risk Potential

**Nursing/Integrated Concepts:** Nursing Process: Implementation

**Learning Outcome:** LO 31.4 Plan the nursing care for the child with alterations in skin integrity, including dermatitis, infectious disorders, and infestations.

### Question 2

**Type:** MCSA

The nurse is caring for a pediatric client diagnosed with eczema. Which topical medication order does the nurse anticipate for this client?

1. Corticosteroids



2. Retinoids
3. Antifungals
4. Antibacterials

**Correct Answer:** 1

**Rationale 1:** Topical corticosteroids are used to reduce inflammation when the child has eczema. Topical retinoids are used for acne. Topical antifungals are used for dermatophytoses. Topical antibacterials would be used for problems such as burns.

**Rationale 2:** Topical corticosteroids are used to reduce inflammation when the child has eczema. Topical retinoids are used for acne. Topical antifungals are used for dermatophytoses. Topical antibacterials would be used for problems such as burns.

**Rationale 3:** Topical corticosteroids are used to reduce inflammation when the child has eczema. Topical retinoids are used for acne. Topical antifungals are used for dermatophytoses. Topical antibacterials would be used for problems such as burns.

**Rationale 4:** Topical corticosteroids are used to reduce inflammation when the child has eczema. Topical retinoids are used for acne. Topical antifungals are used for dermatophytoses. Topical antibacterials would be used for problems such as burns.

**Global Rationale:** Topical corticosteroids are used to reduce inflammation when the child has eczema. Topical retinoids are used for acne. Topical antifungals are used for dermatophytoses. Topical antibacterials would be used for problems such as burns.

**Cognitive Level:** Analyzing

**Client Need:** Physiological Integrity

**Client Need Sub:** Pharmacological and Parenteral Therapies

**Nursing/Integrated Concepts:** Nursing Process: Implementation

**Learning Outcome:** LO 31.4 Plan the nursing care for the child with alterations in skin integrity, including dermatitis, infectious disorders, and infestations.

### Question 3

**Type:** MCSA

The nurse is examining a 12-month-old who is brought to the clinic for persistent diaper rash. The nurse finds perianal inflammation with bright red scaly plaques and small papules. Satellite lesions are also present. What is the most likely cause of this client's diaper rash?

1. Impetigo (staph)
2. *Candida albicans* (yeast)
3. Urine and feces
4. Infrequent diapering

**Correct Answer:** 2

**Rationale 1:** *Candida albicans* is frequently the underlying cause of severe diaper rash. When a primary or secondary infection with *Candida albicans* occurs, the rash has bright red scaly plaques with sharp margins. Small papules and pustules may be seen, along with satellite lesions. Even though diaper dermatitis can be caused by impetigo, urine and feces, and infrequent diapering, the lesions and persistent characteristics are common for *Candida*.

**Rationale 2:** *Candida albicans* is frequently the underlying cause of severe diaper rash. When a primary or secondary infection with *Candida albicans* occurs, the rash has bright red scaly plaques with sharp margins. Small papules and pustules may be seen, along with satellite lesions. Even though diaper dermatitis can be caused by impetigo, urine and feces, and infrequent diapering, the lesions and persistent characteristics are common for *Candida*.

**Rationale 3:** *Candida albicans* is frequently the underlying cause of severe diaper rash. When a primary or secondary infection with *Candida albicans* occurs, the rash has bright red scaly plaques with sharp margins. Small papules and pustules may be seen, along with satellite lesions. Even though diaper dermatitis can be caused by impetigo, urine and feces, and infrequent diapering, the lesions and persistent characteristics are common for *Candida*.

**Rationale 4:** *Candida albicans* is frequently the underlying cause of severe diaper rash. When a primary or secondary infection with *Candida albicans* occurs, the rash has bright red scaly plaques with sharp margins. Small papules and pustules may be seen, along with satellite lesions. Even though diaper dermatitis can be caused by impetigo, urine and feces, and infrequent diapering, the lesions and persistent characteristics are common for *Candida*.

**Global Rationale:** *Candida albicans* is frequently the underlying cause of severe diaper rash. When a primary or secondary infection with *Candida albicans* occurs, the rash has bright red scaly plaques with sharp margins. Small papules and pustules may be seen, along with satellite lesions. Even though diaper dermatitis can be caused by impetigo, urine and feces, and infrequent diapering, the lesions and persistent characteristics are common for *Candida*.

**Cognitive Level:** Analyzing

**Client Need:** Health Promotion and Maintenance

**Client Need Sub:**

**Nursing/Integrated Concepts:** Nursing Process: Assessment

**Learning Outcome:** LO 31.1 Classify the characteristics of skin lesions caused by irritants, drug reactions, mites, infection, and injury.

**Question 4**

**Type:** MCSA

A 2-month-old client has a candidal diaper rash. Which medication does the nurse anticipate will be prescribed for this client?

1. Bacitracin ointment
2. Hydrocortisone ointment
3. Desitin
4. Nystatin given topically and orally

**Correct Answer:** 4

**Rationale 1:** Diaper candidiasis is treated with an antifungal cream (Nystatin). An oral antifungal agent may be given to clear the candidiasis from the intestines. Bacitracin is for an infection caused by staphylococcus. Mild diaper rash is treated with a barrier such as Desitin. Moderate diaper rash is treated with hydrocortisone ointment.

**Rationale 2:** Diaper candidiasis is treated with an antifungal cream (Nystatin). An oral antifungal agent may be given to clear the candidiasis from the intestines. Bacitracin is for an infection caused by staphylococcus. Mild diaper rash is treated with a barrier such as Desitin. Moderate diaper rash is treated with hydrocortisone ointment.

**Rationale 3:** Diaper candidiasis is treated with an antifungal cream (Nystatin). An oral antifungal agent may be given to clear the candidiasis from the intestines. Bacitracin is for an infection caused by staphylococcus. Mild diaper rash is treated with a barrier such as Desitin. Moderate diaper rash is treated with hydrocortisone ointment.

**Rationale 4:** Diaper candidiasis is treated with an antifungal cream (Nystatin). An oral antifungal agent may be given to clear the candidiasis from the intestines. Bacitracin is for an

infection caused by staphylococcus. Mild diaper rash is treated with a barrier such as Desitin. Moderate diaper rash is treated with hydrocortisone ointment.

**Global Rationale:** Diaper candidiasis is treated with an antifungal cream (Nystatin). An oral antifungal agent may be given to clear the candidiasis from the intestines. Bacitracin is for an infection caused by staphylococcus. Mild diaper rash is treated with a barrier such as Desitin. Moderate diaper rash is treated with hydrocortisone ointment.

**Cognitive Level:** Applying

**Client Need:** Physiological Integrity

**Client Need Sub:** Pharmacological and Parenteral Therapies

**Nursing/Integrated Concepts:** Nursing Process: Implementation

**Learning Outcome:** LO 31.4 Plan the nursing care for the child with alterations in skin integrity, including dermatitis, infectious disorders, and infestations.

### Question 5

**Type:** MCMA

The nurse is teaching a group of adolescents about care for acne vulgaris. Which interventions will the nurse include in the teaching session?

**Standard Text:** Select all that apply.

1. Wash skin with mild soap and water twice a day.
2. Use astringents and vigorous scrubbing.
3. Avoid picking or squeezing the lesions.
4. Apply tretinoin (Retin-A) liberally.
5. Avoid sun exposure if on tetracycline.

**Correct Answer:** 1,3,5

**Rationale 1:** The adolescent should be taught to wash skin with mild soap and water twice a day, to avoid picking or squeezing acne lesions, and to avoid sun exposure if on tetracycline. Using astringents and scrubbing vigorously can exacerbate acne. Tretinoin (Retin-A) should be applied sparingly (pea-size doses).

**Rationale 2:** The adolescent should be taught to wash skin with mild soap and water twice a day, to avoid picking or squeezing acne lesions, and to avoid sun exposure if on tetracycline. Using astringents and scrubbing vigorously can exacerbate acne. Tretinoin (Retin-A) should be applied sparingly (pea-size doses).

**Rationale 3:** The adolescent should be taught to wash skin with mild soap and water twice a day, to avoid picking or squeezing acne lesions, and to avoid sun exposure if on tetracycline. Using astringents and scrubbing vigorously can exacerbate acne. Tretinoin (Retin-A) should be applied sparingly (pea-size doses).

**Rationale 4:** The adolescent should be taught to wash skin with mild soap and water twice a day, to avoid picking or squeezing acne lesions, and to avoid sun exposure if on tetracycline. Using astringents and scrubbing vigorously can exacerbate acne. Tretinoin (Retin-A) should be applied sparingly (pea-size doses).

**Rationale 5:** The adolescent should be taught to wash skin with mild soap and water twice a day, to avoid picking or squeezing acne lesions, and to avoid sun exposure if on tetracycline. Using astringents and scrubbing vigorously can exacerbate acne. Tretinoin (Retin-A) should be applied sparingly (pea-size doses).

**Global Rationale:** The adolescent should be taught to wash skin with mild soap and water twice a day, to avoid picking or squeezing acne lesions, and to avoid sun exposure if on tetracycline.

Using astringents and scrubbing vigorously can exacerbate acne. Tretinoin (Retin-A) should be applied sparingly (pea-size doses).

**Cognitive Level:** Applying

**Client Need:** Health Promotion and Maintenance

**Client Need Sub:**

**Nursing/Integrated Concepts:** Nursing Process: Implementation

**Learning Outcome:** LO 31.5 Prepare an education plan for adolescents with acne to promote self-care.

### Question 6

**Type:** MCSA

A pediatric client is hospitalized with a severe case of impetigo contagiosa. Which antibiotic does the nurse anticipate the healthcare provider will order for this client?

1. Dicloxacillin (Pathocil)
2. Rifampin (Rifadin)
3. Sulfamethoxazole and trimethoprim (Bactrim)
4. Metronidazole (Flagyl)

**Correct Answer:** 1

**Rationale 1:** A systemic antibiotic will be given for severe impetigo because it is a bacterial infection. Dicloxacillin is used in treatment of skin and soft-tissue infections. It is specific for treating staphylococcal infections. Rifampin is an antitubercular agent, sulfamethoxazole and trimethoprim are used as a prophylaxis against *Pneumocystis carinii pneumonia* (PCP), and metronidazole is used to treat anaerobic and protozoic infections.

**Rationale 2:** A systemic antibiotic will be given for severe impetigo because it is a bacterial infection. Dicloxacillin is used in treatment of skin and soft-tissue infections. It is specific for treating staphylococcal infections. Rifampin is an antitubercular agent, sulfamethoxazole and trimethoprim are used as a prophylaxis against *Pneumocystis carinii pneumonia* (PCP), and metronidazole is used to treat anaerobic and protozoic infections.

**Rationale 3:** A systemic antibiotic will be given for severe impetigo because it is a bacterial infection. Dicloxacillin is used in treatment of skin and soft-tissue infections. It is specific for treating staphylococcal infections. Rifampin is an antitubercular agent, sulfamethoxazole and trimethoprim are used as a prophylaxis against *Pneumocystis carinii pneumonia* (PCP), and metronidazole is used to treat anaerobic and protozoic infections.

**Rationale 4:** A systemic antibiotic will be given for severe impetigo because it is a bacterial infection. Dicloxacillin is used in treatment of skin and soft-tissue infections. It is specific for treating staphylococcal infections. Rifampin is an antitubercular agent, sulfamethoxazole and trimethoprim are used as a prophylaxis against *Pneumocystis carinii pneumonia* (PCP), and metronidazole is used to treat anaerobic and protozoic infections.

**Global Rationale:** A systemic antibiotic will be given for severe impetigo because it is a bacterial infection. Dicloxacillin is used in treatment of skin and soft-tissue infections. It is specific for treating staphylococcal infections. Rifampin is an antitubercular agent, sulfamethoxazole and trimethoprim are used as a prophylaxis against *Pneumocystis carinii pneumonia* (PCP), and metronidazole is used to treat anaerobic and protozoic infections.

**Cognitive Level:** Applying

**Client Need:** Physiological Integrity

**Client Need Sub:** Pharmacological and Parenteral Therapies

**Nursing/Integrated Concepts:** Nursing Process: Planning

**Learning Outcome:** LO 31.4 Plan the nursing care for the child with alterations in skin integrity, including dermatitis, infectious disorders, and infestations.

**Question 7**

**Type:** MCSA

An infant has a severe case of oral thrush (*Candida albicans*). Which nursing diagnosis is the priority for this infant?

1. Activity Intolerance Related to Oral Thrush
2. Ineffective Airway Clearance Related to Mucus
3. Ineffective Infant Feeding Pattern Related to Discomfort
4. Ineffective Breathing Pattern Related to Oral Thrush

**Correct Answer:** 3

**Rationale 1:** An infant with oral thrush may refuse to nurse or feed because of discomfort and pain. Prompt treatment is necessary so the infant can resume a normal feeding pattern. Activity intolerance, ineffective airway clearance, and ineffective breathing patterns are not usual associated problems.

**Rationale 2:** An infant with oral thrush may refuse to nurse or feed because of discomfort and pain. Prompt treatment is necessary so the infant can resume a normal feeding pattern. Activity intolerance, ineffective airway clearance, and ineffective breathing patterns are not usual associated problems.

**Rationale 3:** An infant with oral thrush may refuse to nurse or feed because of discomfort and pain. Prompt treatment is necessary so the infant can resume a normal feeding pattern. Activity intolerance, ineffective airway clearance, and ineffective breathing patterns are not usual associated problems.

**Rationale 4:** An infant with oral thrush may refuse to nurse or feed because of discomfort and pain. Prompt treatment is necessary so the infant can resume a normal feeding pattern. Activity intolerance, ineffective airway clearance, and ineffective breathing patterns are not usual associated problems.

**Global Rationale:** An infant with oral thrush may refuse to nurse or feed because of discomfort and pain. Prompt treatment is necessary so the infant can resume a normal feeding pattern. Activity intolerance, ineffective airway clearance, and ineffective breathing patterns are not usual associated problems.

**Cognitive Level:** Analyzing

**Client Need:** Health Promotion and Maintenance

**Client Need Sub:**

**Nursing/Integrated Concepts:** Nursing Process: Diagnosis

**Learning Outcome:** LO 31.4 Plan the nursing care for the child with alterations in skin integrity, including dermatitis, infectious disorders, and infestations.

**Question 8**

**Type:** MCSA

The nurse is providing education to the parents of a pediatric client who is diagnosed with tinea capitis (ringworm of the scalp). Which statement made by the parents indicates an appropriate understanding of the teaching session?

1. We will give the griseofulvin on an empty stomach.
2. We're glad ringworm isn't transmitted from person to person.

3. Once the lesion is gone, we can stop the griseofulvin.
4. We will give the griseofulvin with milk or peanut butter.

**Correct Answer:** 4

**Rationale 1:** Parents are advised to give oral griseofulvin with fatty foods such as milk or peanut butter to enhance absorption. The medication must be used for the entire prescribed period even if the lesions are gone. All members of the family and household pets should be assessed for fungal lesions because person-to-person transmission is common.

**Rationale 2:** Parents are advised to give oral griseofulvin with fatty foods such as milk or peanut butter to enhance absorption. The medication must be used for the entire prescribed period even if the lesions are gone. All members of the family and household pets should be assessed for fungal lesions because person-to-person transmission is common.

**Rationale 3:** Parents are advised to give oral griseofulvin with fatty foods such as milk or peanut butter to enhance absorption. The medication must be used for the entire prescribed period even if the lesions are gone. All members of the family and household pets should be assessed for fungal lesions because person-to-person transmission is common.

**Rationale 4:** Parents are advised to give oral griseofulvin with fatty foods such as milk or peanut butter to enhance absorption. The medication must be used for the entire prescribed period even if the lesions are gone. All members of the family and household pets should be assessed for fungal lesions because person-to-person transmission is common.

**Global Rationale:** Parents are advised to give oral griseofulvin with fatty foods such as milk or peanut butter to enhance absorption. The medication must be used for the entire prescribed period even if the lesions are gone. All members of the family and household pets should be assessed for fungal lesions because person-to-person transmission is common.

**Cognitive Level:** Analyzing

**Client Need:** Health Promotion and Maintenance

**Client Need Sub:**

**Nursing/Integrated Concepts:** Nursing Process: Evaluation

**Learning Outcome:** LO 31.4 Plan the nursing care for the child with alterations in skin integrity, including dermatitis, infectious disorders, and infestations.

**Question 9**

**Type:** MCSA

The school nurse is conducting pediculosis capitis (head lice) checks. Which findings would indicate a positive head check?

1. White, flaky particles throughout the entire scalp region
2. Maculopapular lesions behind the ears
3. Lesions in the scalp that extend to the hairline or neck
4. White sacs attached to the hair shafts in the occipital area

**Correct Answer:** 4

**Rationale 1:** Evidence of pediculosis capitis includes white sacs (nits) that are attached to the hair shafts, frequently in the occiput area. Lesions may be present from itching, but the positive sign is evidence of nits. Lice and nits must be distinguished from dandruff, which appears as white, flaky particles.

**Rationale 2:** Evidence of pediculosis capitis includes white sacs (nits) that are attached to the hair shafts, frequently in the occiput area. Lesions may be present from itching, but the positive

sign is evidence of nits. Lice and nits must be distinguished from dandruff, which appears as white, flaky particles.

**Rationale 3:** Evidence of pediculosis capitis includes white sacs (nits) that are attached to the hair shafts, frequently in the occiput area. Lesions may be present from itching, but the positive sign is evidence of nits. Lice and nits must be distinguished from dandruff, which appears as white, flaky particles.

**Rationale 4:** Evidence of pediculosis capitis includes white sacs (nits) that are attached to the hair shafts, frequently in the occiput area. Lesions may be present from itching, but the positive sign is evidence of nits. Lice and nits must be distinguished from dandruff, which appears as white, flaky particles.

**Global Rationale:** Evidence of pediculosis capitis includes white sacs (nits) that are attached to the hair shafts, frequently in the occiput area. Lesions may be present from itching, but the positive sign is evidence of nits. Lice and nits must be distinguished from dandruff, which appears as white, flaky particles.

**Cognitive Level:** Analyzing

**Client Need:** Health Promotion and Maintenance

**Client Need Sub:**

**Nursing/Integrated Concepts:** Nursing Process: Assessment

**Learning Outcome:** LO 31.1 Classify the characteristics of skin lesions caused by irritants, drug reactions, mites, infection, and injury.

**Question 10**

**Type:** MCSA

A nurse is caring for a toddler client who is diagnosed with scabies and prescribed a 5 percent permethrin lotion. How will the nurse apply this lotion when administering it to the toddler?

1. To the scalp only
2. Over the entire body from the chin down, as well as on the scalp and forehead
3. Only on the areas with evidence of scabies activity
4. Only on the hands

**Correct Answer:** 2

**Rationale 1:** Treatment of scabies involves application of a scabicide, such as 5 percent permethrin lotion, over the entire body from the chin down. The scabicide is also applied to the scalp and forehead of younger children, avoiding the rest of the face.

**Rationale 2:** Treatment of scabies involves application of a scabicide, such as 5 percent permethrin lotion, over the entire body from the chin down. The scabicide is also applied to the scalp and forehead of younger children, avoiding the rest of the face.

**Rationale 3:** Treatment of scabies involves application of a scabicide, such as 5 percent permethrin lotion, over the entire body from the chin down. The scabicide is also applied to the scalp and forehead of younger children, avoiding the rest of the face.

**Rationale 4:** Treatment of scabies involves application of a scabicide, such as 5 percent permethrin lotion, over the entire body from the chin down. The scabicide is also applied to the scalp and forehead of younger children, avoiding the rest of the face.

**Global Rationale:** Treatment of scabies involves application of a scabicide, such as 5 percent permethrin lotion, over the entire body from the chin down. The scabicide is also applied to the scalp and forehead of younger children, avoiding the rest of the face.

**Cognitive Level:** Applying

**Client Need:** Health Promotion and Maintenance

**Client Need Sub:**

**Nursing/Integrated Concepts:** Nursing Process: Implementation

**Learning Outcome:** LO 31.4 Plan the nursing care for the child with alterations in skin integrity, including dermatitis, infectious disorders, and infestations.

**Question 11**

**Type:** SEQ

The nurse is caring for a pediatric client who sustained a severe burn. Determine the order of what would be done for this child when the medical team arrives on the scene:

**Standard Text:** Click on the down arrow for each response in the right column and select the correct choice from the list.

**Response 1.** Start intravenous fluids.

**Response 2.** Provide for relief of pain.

**Response 3.** Establish an airway.

**Response 4.** Place a Foley catheter.

**Correct Answer:** 3,1,2,4

**Rationale 1:** The first step in burn care is to ensure that the child has an airway, is breathing, and has a pulse. Due to the severity of the burn, establishing IV access and starting resuscitation fluids would be next, followed by addressing the area of pain and inserting a Foley catheter.

**Rationale 2:** The first step in burn care is to ensure that the child has an airway, is breathing, and has a pulse. Due to the severity of the burn, establishing IV access and starting resuscitation fluids would be next, followed by addressing the area of pain and inserting a Foley catheter.

**Rationale 3:** The first step in burn care is to ensure that the child has an airway, is breathing, and has a pulse. Due to the severity of the burn, establishing IV access and starting resuscitation fluids would be next, followed by addressing the area of pain and inserting a Foley catheter.

**Rationale 4:** The first step in burn care is to ensure that the child has an airway, is breathing, and has a pulse. Due to the severity of the burn, establishing IV access and starting resuscitation fluids would be next, followed by addressing the area of pain and inserting a Foley catheter.

**Global Rationale:** The first step in burn care is to ensure that the child has an airway, is breathing, and has a pulse. Due to the severity of the burn, establishing IV access and starting resuscitation fluids would be next, followed by addressing the area of pain and inserting a Foley catheter.

**Cognitive Level:** Applying

**Client Need:** Safe Effective Care Environment

**Client Need Sub:** Safety and Infection Control

**Nursing/Integrated Concepts:** Nursing Process: Implementation

**Learning Outcome:** LO 31.7 Develop a nursing care plan for the child with a full-thickness burn injury.

**Question 12**

**Type:** MCSA

The nurse is providing care for a pediatric client who has a third-degree circumferential burn of the right arm. Which nursing diagnosis is the priority for this client?

1. Risk for Infection
2. Risk for Altered Tissue Perfusion



3. Risk for Altered Nutrition: Less than Body Requirements

4. Impaired Physical Mobility

**Correct Answer: 2**

**Rationale 1:** When the burn is circumferential, blood flow can become restricted due to edema and result in tissue hypoxia; therefore, the priority diagnosis is Risk for Altered Tissue Perfusion to the Extremity. Infection, Nutrition, and Mobility would have second priority in this case.

**Rationale 2:** When the burn is circumferential, blood flow can become restricted due to edema and result in tissue hypoxia; therefore, the priority diagnosis is Risk for Altered Tissue Perfusion to the Extremity. Infection, Nutrition, and Mobility would have second priority in this case.

**Rationale 3:** When the burn is circumferential, blood flow can become restricted due to edema and result in tissue hypoxia; therefore, the priority diagnosis is Risk for Altered Tissue Perfusion to the Extremity. Infection, Nutrition, and Mobility would have second priority in this case.

**Rationale 4:** When the burn is circumferential, blood flow can become restricted due to edema and result in tissue hypoxia; therefore, the priority diagnosis is Risk for Altered Tissue Perfusion to the Extremity. Infection, Nutrition, and Mobility would have second priority in this case.

**Global Rationale:** When the burn is circumferential, blood flow can become restricted due to edema and result in tissue hypoxia; therefore, the priority diagnosis is Risk for Altered Tissue Perfusion to the Extremity. Infection, Nutrition, and Mobility would have second priority in this case.

**Cognitive Level:** Analyzing

**Client Need:** Safe Effective Care Environment

**Client Need Sub:**

**Nursing/Integrated Concepts:** Nursing Process: Diagnosis

**Learning Outcome:** LO 31.6 Summarize the process to measure the extent of burns and burn severity in children.

**Question 13**

**Type:** MCSA

During the recoverymanagement phase of burn treatment, which is the most common complication seen in children?

1. Shock

2. Metabolic acidosis

3. Burn-wound infection

4. Asphyxia

**Correct Answer: 3**

**Rationale 1:** Infection of the burned area is a frequent complication in the recoverymanagement phase. A goal of burn-wound care is protection from infection.

**Rationale 2:** Infection of the burned area is a frequent complication in the recoverymanagement phase. A goal of burn-wound care is protection from infection.

**Rationale 3:** Infection of the burned area is a frequent complication in the recoverymanagement phase. A goal of burn-wound care is protection from infection.

**Rationale 4:** Infection of the burned area is a frequent complication in the recoverymanagement phase. A goal of burn-wound care is protection from infection.

**Global Rationale:** Infection of the burned area is a frequent complication in the recoverymanagement phase. A goal of burn-wound care is protection from infection.

**Cognitive Level:** Analyzing

**Client Need:** Physiological Integrity

**Client Need Sub:** Physiological Adaptation

**Nursing/Integrated Concepts:** Nursing Process: Assessment

**Learning Outcome:** LO 31.7 Develop a nursing care plan for the child with a full-thickness burn injury.

**Question 14**

**Type:** MCSA

The nurse explains to the parents of a child with a severe burn that wearing of an elastic pressure garment (Jobst stocking) during the rehabilitative stage can help with the prevention of which complication?

1. Poor circulation
2. Hypertrophic scarring
3. Pain
4. Formation of thrombus in the burn area

**Correct Answer:** 2

**Rationale 1:** During the rehabilitation stage, Jobst stockings or pressure garments are used to reduce development of hypertrophic scarring and contractures.

**Rationale 2:** During the rehabilitation stage, Jobst stockings or pressure garments are used to reduce development of hypertrophic scarring and contractures.

**Rationale 3:** During the rehabilitation stage, Jobst stockings or pressure garments are used to reduce development of hypertrophic scarring and contractures.

**Rationale 4:** During the rehabilitation stage, Jobst stockings or pressure garments are used to reduce development of hypertrophic scarring and contractures.

**Global Rationale:** During the rehabilitation stage, Jobst stockings or pressure garments are used to reduce development of hypertrophic scarring and contractures.

**Cognitive Level:** Analyzing

**Client Need:** Physiological Integrity

**Client Need Sub:** Reduction of Risk Potential

**Nursing/Integrated Concepts:** Nursing Process: Planning

**Learning Outcome:** LO 31.7 Develop a nursing care plan for the child with a full-thickness burn injury.

**Question 15**

**Type:** MCSA

A pediatric client sustains a minor burn. When teaching the family the treatment for this burn, the nurse would teach that the client's diet should be high in which substance?

1. Fats
2. Protein
3. Minerals
4. Carbohydrates

**Correct Answer:** 2

**Rationale 1:** Parents should be taught that management of a minor burn requires a high-calorie, high-protein diet. This is necessary to meet the increased nutritional requirements of healing.

**Rationale 2:** Parents should be taught that management of a minor burn requires a high-calorie, high-protein diet. This is necessary to meet the increased nutritional requirements of healing.

**Rationale 3:** Parents should be taught that management of a minor burn requires a high-calorie, high-protein diet. This is necessary to meet the increased nutritional requirements of healing.

**Rationale 4:** Parents should be taught that management of a minor burn requires a high-calorie, high-protein diet. This is necessary to meet the increased nutritional requirements of healing.

**Global Rationale:** Parents should be taught that management of a minor burn requires a high-calorie, high-protein diet. This is necessary to meet the increased nutritional requirements of healing.

**Cognitive Level:** Applying

**Client Need:** Health Promotion and Maintenance

**Client Need Sub:**

**Nursing/Integrated Concepts:** Nursing Process: Implementation

**Learning Outcome:** LO 31.7 Develop a nursing care plan for the child with a full-thickness burn injury.

**Question 16**

**Type:** MCMA

The nurse is teaching a group of students about wound healing. Which items will the nurse include as occurring during the hemostasis and inflammation stage of wound healing?

**Standard Text:** Select all that apply.

1. Clot formation to seal the wound
2. Production of collagen and granulation tissue
3. Scar formation and strengthening
4. Release of inflammatory mediators by platelets
5. Swelling as a result of increased capillary permeability

**Correct Answer:** 1,2,5

**Rationale 1:** During the hemostasis and inflammation stage of wound healing, the nurse would state that clot formation occurs to seal the wound; platelets release inflammatory mediators; and increased capillary permeability results in swelling. Scar formation and strengthening occur during maturation. Collagen and granulation tissue are produced during tissue formation.

**Rationale 2:** During the hemostasis and inflammation stage of wound healing, the nurse would state that clot formation occurs to seal the wound; platelets release inflammatory mediators; and increased capillary permeability results in swelling. Scar formation and strengthening occur during maturation. Collagen and granulation tissue are produced during tissue formation.

**Rationale 3:** During the hemostasis and inflammation stage of wound healing, the nurse would state that clot formation occurs to seal the wound; platelets release inflammatory mediators; and increased capillary permeability results in swelling. Scar formation and strengthening occur during maturation. Collagen and granulation tissue are produced during tissue formation.

**Rationale 4:** During the hemostasis and inflammation stage of wound healing, the nurse would state that clot formation occurs to seal the wound; platelets release inflammatory mediators; and increased capillary permeability results in swelling. Scar formation and strengthening occur during maturation. Collagen and granulation tissue are produced during tissue formation.

**Rationale 5:** During the hemostasis and inflammation stage of wound healing, the nurse would state that clot formation occurs to seal the wound; platelets release inflammatory mediators; and increased capillary permeability results in swelling. Scar formation and strengthening occur during maturation. Collagen and granulation tissue are produced during tissue formation.

**Global Rationale:** During the hemostasis and inflammation stage of wound healing, the nurse would state that clot formation occurs to seal the wound; platelets release inflammatory mediators; and increased capillary permeability results in swelling. Scar formation and strengthening occur during maturation. Collagen and granulation tissue are produced during tissue formation.

**Cognitive Level:** Applying

**Client Need:** Physiological Integrity

**Client Need Sub:** Physiological Adaptation

**Nursing/Integrated Concepts:** Nursing Process: Implementation

**Learning Outcome:** LO 31.2 Differentiate among the stages of wound healing.

**Question 17**

**Type:** MCMA

The nurse is providing care to a pediatric client who is diagnosed with psoriasis. Which clinical manifestations does the nurse anticipate upon assessment of this client?

**Standard Text:** Select all that apply.

1. Thick, silvery, scaly erythematous plaque
2. Pruritus
3. Dry skin, likely to crack and fissure
4. Fragile skin and blisters
5. Irregular border surrounded by normal skin

**Correct Answer:** 1,2,5

**Rationale 1:** Clinical manifestations that support the diagnosis of psoriasis include thick, silvery, scaly erythematous plaque; pruritis; and irregular border surrounded by normal skin. Dry skin that is likely to crack and fissure is a clinical manifestation of atopic dermatitis. Fragile skin and blisters are clinical manifestations of epidermolysis bullosa.

**Rationale 2:** Clinical manifestations that support the diagnosis of psoriasis include thick, silvery, scaly erythematous plaque; pruritis; and irregular border surrounded by normal skin. Dry skin that is likely to crack and fissure is a clinical manifestation of atopic dermatitis. Fragile skin and blisters are clinical manifestations of epidermolysis bullosa.

**Rationale 3:** Clinical manifestations that support the diagnosis of psoriasis include thick, silvery, scaly erythematous plaque; pruritis; and irregular border surrounded by normal skin. Dry skin that is likely to crack and fissure is a clinical manifestation of atopic dermatitis. Fragile skin and blisters are clinical manifestations of epidermolysis bullosa.

**Rationale 4:** Clinical manifestations that support the diagnosis of psoriasis include thick, silvery, scaly erythematous plaque; pruritis; and irregular border surrounded by normal skin. Dry skin that is likely to crack and fissure is a clinical manifestation of atopic dermatitis. Fragile skin and blisters are clinical manifestations of epidermolysis bullosa.

**Rationale 5:** Clinical manifestations that support the diagnosis of psoriasis include thick, silvery, scaly erythematous plaque; pruritis; and irregular border surrounded by normal skin. Dry skin that is likely to crack and fissure is a clinical manifestation of atopic dermatitis. Fragile skin and blisters are clinical manifestations of epidermolysis bullosa.

**Global Rationale:** Clinical manifestations that support the diagnosis of psoriasis include thick, silvery, scaly erythematous plaque; pruritis; and irregular border surrounded by normal skin. Dry skin that is likely to crack and fissure is a clinical manifestation of atopic dermatitis. Fragile skin and blisters are clinical manifestations of epidermolysis bullosa.

**Cognitive Level:** Applying

**Client Need:** Physiological Integrity

**Client Need Sub:** Physiological Adaptation

**Nursing/Integrated Concepts:** Nursing Process: Assessment

**Learning Outcome:** LO 31.3 Compare skin conditions that have a hereditary cause or predisposition.

**Question 18**

**Type:** MCMA

The nurse is providing teaching to a community group regarding preventative strategies to reduce the risk of burn injury. Which topics will the nurse include in the teaching session?

**Standard Text:** Select all that apply.

1. Avoid contact with unknown animals and wild animals.
2. Layer children's clothing for warmth.
3. Keep infants and toddlers off the lap when drinking hot beverages or eating soup.
4. Lower the temperature settings for hot water heaters.
5. Wear light-colored clothes and avoid eating sweetened foods and beverages when outside.

**Correct Answer:** 3,4

**Rationale 1:** In order to decrease the risk of burn injury, the nurse would tell the group to keep infants and toddlers off the lap while drinking hot beverages or eating soup and to lower the temperature settings for the hot water heaters. Avoiding contact with unknown animals and wild animals along with wearing light-colored clothes and avoiding eating sweetened foods and beverages when outside are strategies to prevent bites and stings. Layering children's clothing for warmth is a strategy to prevent hypothermia.

**Rationale 2:** In order to decrease the risk of burn injury, the nurse would tell the group to keep infants and toddlers off the lap while drinking hot beverages or eating soup and to lower the temperature settings for the hot water heaters. Avoiding contact with unknown animals and wild animals along with wearing light-colored clothes and avoiding eating sweetened foods and beverages when outside are strategies to prevent bites and stings. Layering children's clothing for warmth is a strategy to prevent hypothermia.

**Rationale 3:** In order to decrease the risk of burn injury, the nurse would tell the group to keep infants and toddlers off the lap while drinking hot beverages or eating soup and to lower the temperature settings for the hot water heaters. Avoiding contact with unknown animals and wild animals along with wearing light-colored clothes and avoiding eating sweetened foods and beverages when outside are strategies to prevent bites and stings. Layering children's clothing for warmth is a strategy to prevent hypothermia.

**Rationale 4:** In order to decrease the risk of burn injury, the nurse would tell the group to keep infants and toddlers off the lap while drinking hot beverages or eating soup and to lower the temperature settings for the hot water heaters. Avoiding contact with unknown animals and wild animals along with wearing light-colored clothes and avoiding eating sweetened foods and beverages when outside are strategies to prevent bites and stings. Layering children's clothing for warmth is a strategy to prevent hypothermia.

**Rationale 5:** In order to decrease the risk of burn injury, the nurse would tell the group to keep infants and toddlers off the lap while drinking hot beverages or eating soup and to lower the temperature settings for the hot water heaters. Avoiding contact with unknown animals and wild animals along with wearing light-colored clothes and avoiding eating sweetened foods and

beverages when outside are strategies to prevent bites and stings. Layering childrens clothing for warmth is a strategy to prevent hypothermia.

**Global Rationale:** In order to decrease the risk of burn injury, the nurse would tell the group to keep infants and toddlers off the lap while drinking hot beverages or eating soup and to lower the temperature settings for the hot water heaters. Avoiding contact with unknown animals and wild animals along with wearing light-colored clothes and avoiding eating sweetened foods and beverages when outside are strategies to prevent bites and stings. Layering childrens clothing for warmth is a strategy to prevent hypothermia.

## Chapter 30: Alterations in Immune Function

### MULTIPLE CHOICE

1. A nurse in a well-child clinic is teaching parents about their child's immune system. Which statement, made by the nurse, is correct?

- a. The immune system distinguishes and actively protects the body's own cells from foreign substances.
- b. The immune system is fully developed by 1 year of age.
- c. The immune system protects the child against communicable diseases in the first 6 years of life.
- d. The immune system responds to an offending agent by producing antigens.

ANS: A

The immune system responds to foreign substances, or antigens, by producing antibodies and storing information. Intact skin, mucous membranes, and processes such as coughing, sneezing, and tearing help maintain internal homeostasis. Children up to the age of 6 or 7 years have limited antibodies against common bacteria. The immunoglobins reach adult levels at different ages. Immunization is the basis from which the immune system activates protection against some communicable diseases. Antibodies are produced by the immune system against invading agents, or antigens.

2. A nurse is teaching parents about the importance of immunizations for infants because of immaturity of the immune system. The parents demonstrate that they understand the teaching if they make which statement?

- a. The spleen reaches full size by 1 year of age.
- b. IgM, IgE, and IgD levels are high at birth.
- c. IgG levels in the newborn infant are low at birth.
- d. Absolute lymphocyte counts reach a peak during the first year.

ANS: D

Absolute lymphocyte counts reach a peak during the first year. The spleen reaches its full size during adulthood. IgM, IgE, and IgD are normally in low concentration at birth. IgM, IgE, IgA, and IgD do not cross the placenta. The term newborn infant receives an adult level of IgG as a result of transplacental transfer from the mother.

3. Which statement is true regarding how infants acquire immunity?

- a. The infant acquires humoral and cell-mediated immunity in response to infections and immunizations.

- b. The infant acquires maternal antibodies that ensure immunity up to 12 months of age.
- c. Active immunity is acquired from the mother and lasts 6 to 7 months.
- d. Passive immunity develops in response to immunizations.

ANS: A

Infants acquire long-term active immunity from exposure to antigens and vaccines. Immunity is acquired actively and passively. The term infants passive immunity is acquired from the mother and begins to dissipate during the first 6 to 8 months of life. Active immunity develops in response to immunizations.

4. A nurse is teaching parents about transmission of human immunodeficiency virus (HIV) in the pediatric population. The nurse should relate that the most common mode of transmission of HIV virus is:

- a. Perinatal transmission
- b. Sexual abuse
- c. Blood transfusions
- d. Poor hand washing

ANS: A

Perinatal transmission accounts for the highest percentage of HIV infections in children. Infected women can transmit the virus to their infants across the placenta during pregnancy, at delivery, and through breast-feeding. Cases of HIV infection from sexual abuse have been reported; however, perinatal transmission accounts for most pediatric HIV infections. Although in the past some children became infected with HIV through blood transfusions, improved laboratory screening has significantly reduced the probability of contracting HIV from blood products. Poor hand washing is not an etiology of HIV infection.

5. A nurse is preparing to administer routine immunizations to an infant who is HIV positive. What is the American Academy of Pediatrics recommendation for immunizing infants who are HIV positive?

- a. Follow the routine immunization schedule.
- b. Routine immunizations are administered. Assess CD4+ counts before administering the MMR and varicella vaccinations.
- c. Do not give immunizations because of the infants altered immune status.
- d. Eliminate the pertussis vaccination because of the risk of convulsions.

ANS: B

Routine immunizations are appropriate. CD4+ cells are monitored when deciding whether to provide live virus vaccines. If the child is severely immunocompromised, the MMR vaccine is not given. The varicella vaccine can be considered on the basis of the child's CD4+ counts. Only inactivated polio (IPV) should be used for HIV-infected children. Immunizations are given to infants who are HIV positive. The pertussis vaccination is not eliminated for an infant who is HIV positive.

6. Which recommendation by the nurse is appropriate for a mother who has a preschool child who refuses to take the medications for HIV infection?

- a. Mix medications with chocolate syrup or follow with chocolate candy.

- b. Mix the medications with milk or an essential food.
- c. Skip the dose of medication if the child protests too much.
- d. Mix the medication in a syringe, hold the child down firmly, and administer the medication.

ANS: A

Liquid forms of HIV medications may be foul tasting or have a gritty texture. Chocolate would help to make these foods more palatable and is liked by most children. Medications should be mixed with nonessential foods. Doses of medication should never be skipped. Fighting with the child or using force should be avoided. A nonessential food that will make the taste of the medication more palatable for the child should be the correct action. The administration of medications for the child with HIV becomes part of the family's everyday routine for years.

7. What is the primary nursing concern for a hospitalized child with HIV infection?

- a. Maintaining growth and development
- b. Eating foods that the family brings to the child
- c. Consideration of parental limitations and weaknesses
- d. Resting for 2 to 3 hours twice a day

ANS: A

Maintaining growth and development is a major concern for the child with HIV infection.

Frequent monitoring for failure to thrive, neurological deterioration, or developmental delay is important for HIV-infected infants and children. Nutrition, which contributes to a child's growth, is a nursing concern; however, it is unnecessary for family members to bring food to the child. Although an assessment of parental strengths and weaknesses is important, it will be imperative for healthcare providers to focus on the parental strengths not weaknesses. This is not as important as the frequent assessment of the child's growth and development. Rest is a nursing concern, but it is not as high a priority as maintaining growth and development. Rest periods twice a day for 2 to 3 hours may not be appropriate.

8. What should the nurse include in a teaching plan for a mother of a toddler who will be taking prednisone for several months?

- a. The medication should be taken between meals.
- b. The medication needs to be discontinued because of the risks associated with long-term usage.
- c. The medication should not be stopped abruptly.
- d. The medication may lower blood glucose so the mother needs to observe the child for signs of hypoglycemia.

ANS: C

The dosage must be tapered before the drug is discontinued to allow the gradual return of function in the pituitary-adrenal axis. Prednisone should be taken with food to minimize or prevent gastrointestinal bleeding. Although there are adverse effects from long-term steroid use, the medication must not be discontinued without consulting a physician. Acute adrenal insufficiency can occur if the medication is withdrawn abruptly. The dosage needs to be tapered. The medication puts the child at risk for hyperglycemia, not hypoglycemia.

9. A nurse assesses a child on long-term systemic corticosteroid therapy for which condition?

- a. Hypotension



- b. Dilation of blood vessels in the cheeks
- c. Growth delays
- d. Decreased appetite and weight loss

ANS: C

Growth delay is associated with long-term steroid use related to protein catabolism and decreased growth hormone. Hypertension is a clinical manifestation of long-term systemic steroid administration. Dilation of blood vessels in the cheeks is associated with an excess of topically administered steroids. Increased appetite and weight gain are clinical manifestations of excess systemic corticosteroid therapy.

10. Which statement by the parent of a 5-year-old child with acquired immunodeficiency syndrome (AIDS) regarding prescribed antiretroviral agents indicates that she has a good understanding of disease management?

- a. When my child's pain increases, I double the recommended dosage of antiretroviral medication.
- b. Addiction is a risk, so I use the medication only as ordered.
- c. Doses of the antiretroviral medication are selected on the basis of my child's age and growth.
- d. By the time my child is an adolescent, she will not need her antiretroviral medications any longer.

ANS: C

Doses of antiretroviral medication to treat HIV infection for infants and children are based on individualized age and growth considerations. Antiretroviral medications are not administered for pain relief. Doubling the recommended dosage of any medication is not appropriate without an order from the physician. Addiction is not a realistic concern with antiretroviral medications. Antiretroviral medications are still needed during adolescence. Doses for adolescents are based on pubertal status by Tanner staging.

11. A mother of a child in the terminal stages of AIDS tells the nurse that her child wants to celebrate his birthday early because he won't be here on his birthday. Which is the best response the nurse can make to this mother?

- a. What does your husband think about giving the party for the child?
- b. How does the family feel about your giving in to the child?
- c. Ill children can be very manipulative.
- d. Is this the first time he has spoken about death?

ANS: D

Dying children know they are dying. Disclosure of awareness of death comes in various ways and needs to be identified by the family and the nurse. The major concern is the child's disclosure of awareness of death, not the husband's reaction. Making statements such as giving in is inappropriate when seeking information. Manipulation is not a major concern during the terminal stage of disease.

12. Which intervention is appropriate for a child receiving high doses of steroids?

- a. Limit activity and receive home schooling.
- b. Decrease the amount of potassium in the diet.
- c. Administer a killed virus vaccine.

- 
- d. Monitor for seizure activity.

ANS: C

The child on high doses of steroids should not receive live virus vaccines because of immunosuppression. Limiting activity and home schooling are not routine for a child receiving high doses of steroids. The child receiving steroids is at risk for hypokalemia and needs potassium in the diet. Children on steroids are not typically at risk for seizures.

13. The nurse observes a red rash that spreads across the child's cheeks and nose. This assessment finding is characteristic of which of the following conditions?

- 
- a. Systemic lupus erythematosus (SLE)
- 
- b. Rheumatic fever
- 
- c. Kawasaki disease
- 
- d. Anaphylactic reaction

ANS: A

A red, flat, or raised malar butterfly rash over the cheeks and bridge of the nose is a clinical manifestation of SLE. A major manifestation of rheumatic fever is erythema marginatum, which appears as red skin lesions spread peripherally over the trunk. An erythematous rash, induration of the hands and feet, and erythema of the palms and soles are manifestations of Kawasaki disease. Initial symptoms of anaphylaxis include severe itching and rapid development of erythema.

14. What is the major nursing concern for a child having an anaphylactic reaction?

- 
- a. Identifying the offending allergen
- 
- b. Ineffective breathing pattern
- 
- c. Increased cardiac output
- 
- d. Positioning to facilitate comfort

ANS: B

Laryngospasms resulting in ineffective breathing patterns are a life-threatening manifestation of anaphylaxis. The primary action is to assess airway patency, respiratory rate and effort, level of consciousness, oxygen saturation, and urine output. Determining the cause of an anaphylactic reaction is important to implement the appropriate treatment, but the primary concern is the airway. During anaphylaxis, the cardiac output is decreased. During the acute period of anaphylaxis, the nurse's primary concern is the child's breathing. Positioning for comfort is not a primary concern during a crisis.

15. What is the drug of choice the nurse would administer in the acute treatment of anaphylaxis?

- 
- a. Diphenhydramine (Benadryl)
- 
- b. Cimetidine (Tagamet)
- 
- c. Epinephrine (Adrenaline)
- 
- d. Albuterol (Ventolin)

ANS: C

Epinephrine is the first drug of choice in the immediate treatment of anaphylaxis. Treatment must be initiated immediately because it may only be a matter of minutes before shock occurs. Although diphenhydramine and a histamine inhibitor such as cimetidine may be indicated,

epinephrine is the first drug of choice in the immediate treatment of anaphylaxis. Albuterol is not usually indicated for the treatment of anaphylaxis.

**MULTIPLE RESPONSE**

1. Which home care instructions should the nurse provide to the parents of a child with acquired immunodeficiency syndrome (AIDS)? Select all that apply.

- a. Give supplemental vitamins as prescribed.
- b. Avoid yearly influenza vaccination.
- c. Administer trimethoprim-sulfamethoxazole (Bactrim) as prescribed.
- d. Notify the physician if child develops a cough or congestion.
- e. Missed doses of antiretroviral medication do not need to be recorded.

ANS: A, C, D

The parents should be taught that supplemental vitamins will be prescribed to aid in nutritional status. Bactrim is administered to prevent the opportunistic infection of *Pneumocystis pneumonia*. The physician should be notified if the child with AIDS develops a cough and congestion. The yearly influenza vaccination is recommended and any missed doses of antiretroviral medication need to be recorded and reported.

**OTHER**

1. A child is having an anaphylactic response. Place in order the interventions a nurse should perform beginning with the initial (highest priority) intervention and ending with the lowest priority intervention. Use the following format for your answers: A, B, C, D

- a. Administer steroids and antihistamines as prescribed.
- b. Ensure an adequate airway.
- c. Administer epinephrine as prescribed.
- d. Administer oxygen.
- e. Determine the cause of the reaction.

ANS:

B, C, D, A, E

The airway should be stabilized first and then the epinephrine administered. Oxygen would be given next and the steroids and antihistamines given after the airway, epinephrine, and oxygen are initiated. Determining the cause of the reaction should be done last.

Chapter 31: Alterations in Endocrine Function

**Question 1**

**Type:** MCSA

A school-age client diagnosed with diabetes insipidus (DI) is admitted to the pediatric unit. Which laboratory value does the nurse anticipate for this client based on the diagnosis?

- 1. Hyperglycemia
- 2. Hypernatremia
- 3. Hypercalcemia
- 4. Hypoglycemia

**Correct Answer:** 2

**Rationale 1:** In all forms of diabetes insipidus, serum sodium can increase to pathologic levels, so hyponatremia can occur and should be treated. The glucose level is not affected, so hypoglycemia or hyperglycemia is not caused by the diabetes insipidus. Hypercalcemia (high calcium) does not occur with this endocrine disorder.

**Rationale 2:** In all forms of diabetes insipidus, serum sodium can increase to pathologic levels, so hyponatremia can occur and should be treated. The glucose level is not affected, so hypoglycemia or hyperglycemia is not caused by the diabetes insipidus. Hypercalcemia (high calcium) does not occur with this endocrine disorder.

**Rationale 3:** In all forms of diabetes insipidus, serum sodium can increase to pathologic levels, so hyponatremia can occur and should be treated. The glucose level is not affected, so hypoglycemia or hyperglycemia is not caused by the diabetes insipidus. Hypercalcemia (high calcium) does not occur with this endocrine disorder.

**Rationale 4:** In all forms of diabetes insipidus, serum sodium can increase to pathologic levels, so hyponatremia can occur and should be treated. The glucose level is not affected, so hypoglycemia or hyperglycemia is not caused by the diabetes insipidus. Hypercalcemia (high calcium) does not occur with this endocrine disorder.

**Global Rationale:** In all forms of diabetes insipidus, serum sodium can increase to pathologic levels, so hyponatremia can occur and should be treated. The glucose level is not affected, so hypoglycemia or hyperglycemia is not caused by the diabetes insipidus. Hypercalcemia (high calcium) does not occur with this endocrine disorder.

**Cognitive Level:** Analyzing

**Client Need:** Physiological Integrity

**Client Need Sub:** Physiological Adaptation

**Nursing/Integrated Concepts:** Nursing Process: Assessment

**Learning Outcome:** LO 30.3 Summarize signs and symptoms that may indicate a disorder of the endocrine system.

## **Question 2**

**Type:** MCSA

A nurse is conducting a daily weight on a pediatric client diagnosed with diabetes insipidus and notes the child has lost two pounds in 24 hours. Which action by the nurse is the most appropriate?

1. Continue to monitor the child.
2. Notify the healthcare provider regarding the weight loss.
3. Chart the weight and report the loss to the next shift.
4. Do nothing more than chart the weight, as this would be a normal finding.

**Correct Answer:** 2

**Rationale 1:** With diabetes insipidus, the child may have severe fluid-volume deficit. A weight loss of two pounds indicates a loss of one liter of fluid, so the healthcare provider should be notified and fluids replaced either orally or intravenously. This is a significant loss in a 24-hour period, so continuing to monitor, charting the weight and reporting to the next shift, and doing nothing would prolong treatment.

**Rationale 2:** With diabetes insipidus, the child may have severe fluid-volume deficit. A weight loss of two pounds indicates a loss of one liter of fluid, so the healthcare provider should be notified and fluids replaced either orally or intravenously. This is a significant loss in a 24-hour

period, so continuing to monitor, charting the weight and reporting to the next shift, and doing nothing would prolong treatment.

**Rationale 3:** With diabetes insipidus, the child may have severe fluid-volume deficit. A weight loss of two pounds indicates a loss of one liter of fluid, so the healthcare provider should be notified and fluids replaced either orally or intravenously. This is a significant loss in a 24-hour period, so continuing to monitor, charting the weight and reporting to the next shift, and doing nothing would prolong treatment.

**Rationale 4:** With diabetes insipidus, the child may have severe fluid-volume deficit. A weight loss of two pounds indicates a loss of one liter of fluid, so the healthcare provider should be notified and fluids replaced either orally or intravenously. This is a significant loss in a 24-hour period, so continuing to monitor, charting the weight and reporting to the next shift, and doing nothing would prolong treatment.

**Global Rationale:** With diabetes insipidus, the child may have severe fluid-volume deficit. A weight loss of two pounds indicates a loss of one liter of fluid, so the healthcare provider should be notified and fluids replaced either orally or intravenously. This is a significant loss in a 24-hour period, so continuing to monitor, charting the weight and reporting to the next shift, and doing nothing would prolong treatment.

**Cognitive Level:** Applying

**Client Need:** Safe Effective Care Environment

**Client Need Sub:** Management of Care

**Nursing/Integrated Concepts:** Nursing Process: Assessment

**Learning Outcome:** LO 30.5 Prioritize nursing care for each type of acquired metabolic disorder.

### **Question 3**

**Type:** MCMA

The nurse is caring for a pediatric client diagnosed with syndrome of inappropriate antidiuretic hormone (SIADH) disorder. Which interventions should the nurse implement for this child?

**Standard Text:** Select all that apply.

1. Encouragement of fluids
2. Strict intake and output
3. Administration of ordered diuretics
4. Specific gravity of urine
5. Weight only on admission but not daily

**Correct Answer:** 2,3,4

**Rationale 1:** SIADH results from an excessive amount of serum antidiuretic hormone, causing water intoxication and hyponatremia. Intake and output should be monitored strictly. Diuretics such as furosemide (Lasix) are administered to eliminate excess body fluid, and urine specific gravity is monitored. Fluids are restricted to prevent further hemodilution. Daily weights should be obtained to monitor fluid balance.

**Rationale 2:** SIADH results from an excessive amount of serum antidiuretic hormone, causing water intoxication and hyponatremia. Intake and output should be monitored strictly. Diuretics such as furosemide (Lasix) are administered to eliminate excess body fluid, and urine specific gravity is monitored. Fluids are restricted to prevent further hemodilution. Daily weights should be obtained to monitor fluid balance.

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**Rationale 4:** SIADH results from an excessive amount of serum antidiuretic hormone, causing water intoxication and hyponatremia. Intake and output should be monitored strictly. Diuretics such as furosemide (Lasix) are administered to eliminate excess body fluid, and urine specific gravity is monitored. Fluids are restricted to prevent further hemodilution. Daily weights should be obtained to monitor fluid balance.

**Rationale 5:** SIADH results from an excessive amount of serum antidiuretic hormone, causing water intoxication and hyponatremia. Intake and output should be monitored strictly. Diuretics such as furosemide (Lasix) are administered to eliminate excess body fluid, and urine specific gravity is monitored. Fluids are restricted to prevent further hemodilution. Daily weights should be obtained to monitor fluid balance.

**Global Rationale:** SIADH results from an excessive amount of serum antidiuretic hormone, causing water intoxication and hyponatremia. Intake and output should be monitored strictly. Diuretics such as furosemide (Lasix) are administered to eliminate excess body fluid, and urine specific gravity is monitored. Fluids are restricted to prevent further hemodilution. Daily weights should be obtained to monitor fluid balance.

**Cognitive Level:** Applying

**Client Need:** Physiological Integrity

**Client Need Sub:** Physiological Adaptation

**Nursing/Integrated Concepts:** Nursing Process: Implementation

**Learning Outcome:** LO 30.5 Prioritize nursing care for each type of acquired metabolic disorder.

#### **Question 4**

**Type:** MCSA

An adolescent client diagnosed with Graves disease is admitted to the hospital. Which clinical manifestations would the nurse expect on assessment?

1. Weight gain, hirsutism, and muscle weakness
2. Dehydration, metabolic acidosis, and hypertension
3. Tachycardia, fatigue, and heat intolerance
4. Hyperglycemia, ketonuria, and glucosuria

**Correct Answer:** 3

**Rationale 1:** Graves disease occurs when thyroid hormone levels are increased, resulting in excessive levels of circulating thyroid hormones. Clinical manifestations include tachycardia, fatigue, and heat intolerance. Weight gain, hirsutism, and muscle weakness are signs of Cushing syndrome. Dehydration, metabolic acidosis, and hypertension are signs of congenital adrenal hyperplasia. Hyperglycemia, ketonuria, and glucosuria are signs of diabetes.

**Rationale 2:** Graves disease occurs when thyroid hormone levels are increased, resulting in excessive levels of circulating thyroid hormones. Clinical manifestations include tachycardia, fatigue, and heat intolerance. Weight gain, hirsutism, and muscle weakness are signs of Cushing syndrome. Dehydration, metabolic acidosis, and hypertension are signs of congenital adrenal hyperplasia. Hyperglycemia, ketonuria, and glucosuria are signs of diabetes.

**Rationale 3:** Graves disease occurs when thyroid hormone levels are increased, resulting in excessive levels of circulating thyroid hormones. Clinical manifestations include tachycardia, fatigue, and heat intolerance. Weight gain, hirsutism, and muscle weakness are signs of Cushing syndrome. Dehydration, metabolic acidosis, and hypertension are signs of congenital adrenal hyperplasia. Hyperglycemia, ketonuria, and glucosuria are signs of diabetes.

**Rationale 4:** Graves disease occurs when thyroid hormone levels are increased, resulting in excessive levels of circulating thyroid hormones. Clinical manifestations include tachycardia, fatigue, and heat intolerance. Weight gain, hirsutism, and muscle weakness are signs of Cushing syndrome. Dehydration, metabolic acidosis, and hypertension are signs of congenital adrenal hyperplasia. Hyperglycemia, ketonuria, and glucosuria are signs of diabetes.

**Global Rationale:** Graves disease occurs when thyroid hormone levels are increased, resulting in excessive levels of circulating thyroid hormones. Clinical manifestations include tachycardia, fatigue, and heat intolerance. Weight gain, hirsutism, and muscle weakness are signs of Cushing syndrome. Dehydration, metabolic acidosis, and hypertension are signs of congenital adrenal hyperplasia. Hyperglycemia, ketonuria, and glucosuria are signs of diabetes.

**Cognitive Level:** Applying

**Client Need:** Physiological Integrity

**Client Need Sub:** Physiological Adaptation

**Nursing/Integrated Concepts:** Nursing Process: Assessment

**Learning Outcome:** LO 30.3 Summarize signs and symptoms that may indicate a disorder of the endocrine system.

### **Question 5**

**Type:** MCSA

A nurse is planning care for a pediatric client diagnosed with adrenal insufficiency (Addison disease). Which nursing diagnosis is the priority for this client?

1. Risk for Deficient Fluid Volume
2. Risk for Injury Secondary to Hypertension
3. Acute Pain
4. Imbalanced Nutrition: More than Body Requirements

**Correct Answer:** 1

**Rationale 1:** Adrenal insufficiency can cause fluid deficit. The goal of care is to maintain fluid and electrolyte balance while normal levels of corticosteroids and mineral corticoids are established. Therefore, Acute Pain and Imbalanced Nutrition: More than Body Requirements are not priority nursing diagnoses. A symptom of adrenal insufficiency is hypotension, not hypertension.

**Rationale 2:** Adrenal insufficiency can cause fluid deficit. The goal of care is to maintain fluid and electrolyte balance while normal levels of corticosteroids and mineral corticoids are established. Therefore, Acute Pain and Imbalanced Nutrition: More than Body Requirements are not priority nursing diagnoses. A symptom of adrenal insufficiency is hypotension, not hypertension.

**Rationale 3:** Adrenal insufficiency can cause fluid deficit. The goal of care is to maintain fluid and electrolyte balance while normal levels of corticosteroids and mineral corticoids are established. Therefore, Acute Pain and Imbalanced Nutrition: More than Body Requirements are not priority nursing diagnoses. A symptom of adrenal insufficiency is hypotension, not hypertension.

**Rationale 4:** Adrenal insufficiency can cause fluid deficit. The goal of care is to maintain fluid and electrolyte balance while normal levels of corticosteroids and mineral corticoids are established. Therefore, Acute Pain and Imbalanced Nutrition: More than Body Requirements are not priority nursing diagnoses. A symptom of adrenal insufficiency is hypotension, not hypertension.

**Global Rationale:** Adrenal insufficiency can cause fluid deficit. The goal of care is to maintain fluid and electrolyte balance while normal levels of corticosteroids and mineral corticoids are established. Therefore, Acute Pain and Imbalanced Nutrition: More than Body Requirements are not priority nursing diagnoses. A symptom of adrenal insufficiency is hypotension, not hypertension.

**Cognitive Level:** Analyzing

**Client Need:** Physiological Integrity

**Client Need Sub:** Reduction of Risk Potential

**Nursing/Integrated Concepts:** Nursing Process: Planning

**Learning Outcome:** LO 30.5 Prioritize nursing care for each type of acquired metabolic disorder.

### **Question 6**

**Type:** MCSA

A pediatric client is admitted to the hospital unconscious. The client has a history of type 1 diabetes, and according to the client's mother, has been to two birthday parties in the last few days and has resisted taking the prescribed insulin. At school the client had two more pieces of birthday cake and some ice cream at a class birthday party. What is the likely reason for this client's unconscious state?

1. Metabolic alkalosis
2. Metabolic ketoacidosis
3. Insulin shock
4. Insulin reaction

**Correct Answer:** 2

**Rationale 1:** Metabolic acidosis or ketoacidosis could have occurred because of the excessive intake of sugar with no additional insulin. The body burns fat and protein stores for energy when no insulin is available to metabolize glucose. Altered consciousness occurs as symptoms progress. Metabolic alkalosis, insulin shock, or insulin reaction would not be happening in this case.

**Rationale 2:** Metabolic acidosis or ketoacidosis could have occurred because of the excessive intake of sugar with no additional insulin. The body burns fat and protein stores for energy when no insulin is available to metabolize glucose. Altered consciousness occurs as symptoms progress. Metabolic alkalosis, insulin shock, or insulin reaction would not be happening in this case.

**Rationale 3:** Metabolic acidosis or ketoacidosis could have occurred because of the excessive intake of sugar with no additional insulin. The body burns fat and protein stores for energy when no insulin is available to metabolize glucose. Altered consciousness occurs as symptoms progress. Metabolic alkalosis, insulin shock, or insulin reaction would not be happening in this case.

**Rationale 4:** Metabolic acidosis or ketoacidosis could have occurred because of the excessive intake of sugar with no additional insulin. The body burns fat and protein stores for energy when



no insulin is available to metabolize glucose. Altered consciousness occurs as symptoms progress. Metabolic alkalosis, insulin shock, or insulin reaction would not be happening in this case.

**Global Rationale:** Metabolic acidosis or ketoacidosis could have occurred because of the excessive intake of sugar with no additional insulin. The body burns fat and protein stores for energy when no insulin is available to metabolize glucose. Altered consciousness occurs as symptoms progress. Metabolic alkalosis, insulin shock, or insulin reaction would not be happening in this case.

**Cognitive Level:** Analyzing

**Client Need:** Physiological Integrity

**Client Need Sub:** Physiological Adaptation

**Nursing/Integrated Concepts:** Nursing Process: Assessment

**Learning Outcome:** LO 30.7 Distinguish between the nursing care of the child with type 1 and type 2 diabetes.

**Question 7**

**Type:** MCSA

A pediatric client is diagnosed with type 1 diabetes. The nurse teaches the client the difference between insulin shock and diabetic hyperglycemia. The nurse evaluates that the client understands the teaching when the client states which characteristics of diabetic hyperglycemia?

1. Tremors and lethargy
2. Hunger and hypertension
3. Thirst and flushed skin
4. Shakiness and pallor

**Correct Answer:** 3

**Rationale 1:** Thirst and flushed skin are characteristic of diabetic hyperglycemia. Tremors, lethargy, hunger, shakiness, and pallor are characteristic of hypoglycemia. Hypertension is not a sign associated with hyperglycemia or hypoglycemia.

**Rationale 2:** Thirst and flushed skin are characteristic of diabetic hyperglycemia. Tremors, lethargy, hunger, shakiness, and pallor are characteristic of hypoglycemia. Hypertension is not a sign associated with hyperglycemia or hypoglycemia.

**Rationale 3:** Thirst and flushed skin are characteristic of diabetic hyperglycemia. Tremors, lethargy, hunger, shakiness, and pallor are characteristic of hypoglycemia. Hypertension is not a sign associated with hyperglycemia or hypoglycemia.

**Rationale 4:** Thirst and flushed skin are characteristic of diabetic hyperglycemia. Tremors, lethargy, hunger, shakiness, and pallor are characteristic of hypoglycemia. Hypertension is not a sign associated with hyperglycemia or hypoglycemia.

**Global Rationale:** Thirst and flushed skin are characteristic of diabetic hyperglycemia. Tremors, lethargy, hunger, shakiness, and pallor are characteristic of hypoglycemia. Hypertension is not a sign associated with hyperglycemia or hypoglycemia.

**Cognitive Level:** Analyzing

**Client Need:** Physiological Integrity

**Client Need Sub:** Physiological Adaptation

**Nursing/Integrated Concepts:** Nursing Process: Assessment

**Learning Outcome:** LO 30.7 Distinguish between the nursing care of the child with type 1 and type 2 diabetes.

### Question 8

Type: MCSA

The nurse is providing education to a pediatric client diagnosed with diabetes. The client will be playing soccer over the summer. Which change in the clients management will the nurse explore during this education session?

1. Increased food intake
2. Decreased food intake
3. Increased need for insulin
4. Decreased risk of insulin reaction

**Correct Answer:** 1

**Rationale 1:** Increased physical activity requires adequate caloric intake to prevent hypoglycemia, so food intake should be increased. Increased activity would not require decreased food intake, and it would not result in a decreased risk of insulin reaction. Exercise causes the insulin to be used more efficiently, so increased insulin would not be needed.

**Rationale 2:** Increased physical activity requires adequate caloric intake to prevent hypoglycemia, so food intake should be increased. Increased activity would not require decreased food intake, and it would not result in a decreased risk of insulin reaction. Exercise causes the insulin to be used more efficiently, so increased insulin would not be needed.

**Rationale 3:** Increased physical activity requires adequate caloric intake to prevent hypoglycemia, so food intake should be increased. Increased activity would not require decreased food intake, and it would not result in a decreased risk of insulin reaction. Exercise causes the insulin to be used more efficiently, so increased insulin would not be needed.

**Rationale 4:** Increased physical activity requires adequate caloric intake to prevent hypoglycemia, so food intake should be increased. Increased activity would not require decreased food intake, and it would not result in a decreased risk of insulin reaction. Exercise causes the insulin to be used more efficiently, so increased insulin would not be needed.

**Global Rationale:** Increased physical activity requires adequate caloric intake to prevent hypoglycemia, so food intake should be increased. Increased activity would not require decreased food intake, and it would not result in a decreased risk of insulin reaction. Exercise causes the insulin to be used more efficiently, so increased insulin would not be needed.

**Cognitive Level:** Applying

**Client Need:** Physiological Integrity

**Client Need Sub:** Reduction of Risk Potential

**Nursing/Integrated Concepts:** Nursing Process: Implementation

**Learning Outcome:** LO 30.7 Distinguish between the nursing care of the child with type 1 and type 2 diabetes.

### Question 9

Type: MCSA

The nurse is teaching the parent of a type 1 diabetic preschool-age client about management of the disease. Which teaching point is appropriate for the nurse to include in this session?

1. Allowing the client to administer all the insulin injections
2. Allowing the client to choose which finger to stick for glucose testing
3. Allowing the client to draw up the insulin dose
4. Allowing the client to test blood glucose

**Correct Answer: 2**

**Rationale 1:** The preschool-age clients need for autonomy and control can be met by allowing the client to pick which finger to stick for glucose testing. Administering the insulin, drawing up the dose, and testing blood glucose should not be done by the client until he or she is middle-school age or older.

**Rationale 2:** The preschool-age clients need for autonomy and control can be met by allowing the client to pick which finger to stick for glucose testing. Administering the insulin, drawing up the dose, and testing blood glucose should not be done by the client until he or she is middle-school age or older.

**Rationale 3:** The preschool-age clients need for autonomy and control can be met by allowing the client to pick which finger to stick for glucose testing. Administering the insulin, drawing up the dose, and testing blood glucose should not be done by the client until he or she is middle-school age or older.

**Rationale 4:** The preschool-age clients need for autonomy and control can be met by allowing the client to pick which finger to stick for glucose testing. Administering the insulin, drawing up the dose, and testing blood glucose should not be done by the client until he or she is middle-school age or older.

**Global Rationale:** The preschool-age clients need for autonomy and control can be met by allowing the client to pick which finger to stick for glucose testing. Administering the insulin, drawing up the dose, and testing blood glucose should not be done by the client until he or she is middle-school age or older.

**Cognitive Level:** Applying

**Client Need:** Health Promotion and Maintenance

**Client Need Sub:**

**Nursing/Integrated Concepts:** Nursing Process: Implementation

**Learning Outcome:** LO 30.7 Distinguish between the nursing care of the child with type 1 and type 2 diabetes.

**Question 10**

**Type:** MCSA

A pediatric client is seen in the clinic with a possible diagnosis of type 2 diabetes. The mother asks what the healthcare provider uses to make the diagnosis. The nurse explains that type 2 diabetes is suspected if the child has obesity, acanthosis nigricans, and two non-fasting blood-glucose levels above which level?

1. 120

2. 80

3. 200

4. 50

**Correct Answer: 3**

**Rationale 1:** Blood-glucose levels at or above 200 mg/dL without fasting is diagnostic of type 2 diabetes.

**Rationale 2:** Blood-glucose levels at or above 200 mg/dL without fasting is diagnostic of type 2 diabetes.

**Rationale 3:** Blood-glucose levels at or above 200 mg/dL without fasting is diagnostic of type 2 diabetes.

**Rationale 4:** Blood-glucose levels at or above 200 mg/dL without fasting is diagnostic of type 2 diabetes.

**Global Rationale:** Blood-glucose levels at or above 200 mg/dL without fasting is diagnostic of type 2 diabetes.

**Cognitive Level:** Analyzing

**Client Need:** Physiological Integrity

**Client Need Sub:** Physiological Adaptation

**Nursing/Integrated Concepts:** Nursing Process: Assessment

**Learning Outcome:** LO 30.3 Summarize signs and symptoms that may indicate a disorder of the endocrine system.

**Question 11**

**Type:** MCSA

A pediatric client diagnosed with Turner syndrome tells the nurse, I feel different from my peers. Which response by the nurse is the most appropriate?

1. Tell me more about the feelings you are experiencing.
2. These feelings are not unusual and should pass soon.
3. You'll start to grow soon, so don't worry.
4. You seem to be upset about your disease.

**Correct Answer:** 1

**Rationale 1:** The lack of growth and sexual development associated with Turner syndrome presents problems with psychosocial development. Self-image, self-consciousness, and self-esteem are affected by the girl's perception of her body and how she differs from peers. The nurse should encourage more expression of the girl's feelings. Responding that the feelings will pass, that she'll start to grow, or that she is upset about the disease would not be therapeutic.

**Rationale 2:** The lack of growth and sexual development associated with Turner syndrome presents problems with psychosocial development. Self-image, self-consciousness, and self-esteem are affected by the girl's perception of her body and how she differs from peers. The nurse should encourage more expression of the girl's feelings. Responding that the feelings will pass, that she'll start to grow, or that she is upset about the disease would not be therapeutic.

**Rationale 3:** The lack of growth and sexual development associated with Turner syndrome presents problems with psychosocial development. Self-image, self-consciousness, and self-esteem are affected by the girl's perception of her body and how she differs from peers. The nurse should encourage more expression of the girl's feelings. Responding that the feelings will pass, that she'll start to grow, or that she is upset about the disease would not be therapeutic.

**Rationale 4:** The lack of growth and sexual development associated with Turner syndrome presents problems with psychosocial development. Self-image, self-consciousness, and self-esteem are affected by the girl's perception of her body and how she differs from peers. The nurse should encourage more expression of the girl's feelings. Responding that the feelings will pass, that she'll start to grow, or that she is upset about the disease would not be therapeutic.

**Global Rationale:** The lack of growth and sexual development associated with Turner syndrome presents problems with psychosocial development. Self-image, self-consciousness, and self-esteem are affected by the girl's perception of her body and how she differs from peers. The nurse should encourage more expression of the girl's feelings. Responding that the feelings will pass, that she'll start to grow, or that she is upset about the disease would not be therapeutic.

**Cognitive Level:** Applying

**Client Need:** Psychosocial Integrity

**Client Need Sub:**

**Nursing/Integrated Concepts:** Nursing Process: Planning

**Learning Outcome:** LO 30.8 Plan care for the child with an inherited metabolic disorder.

**Question 12**

**Type:** MCSA

A parent of a newborn asks the nurse why a heel stick is being done on the baby to test for phenylketonuria (PKU). Which response by the nurse is the most appropriate?

1. This screening is required and detection can be done before symptoms develop.
2. The infant has high-risk characteristics.
3. Because the infant was born by cesarean, this test is necessary.
4. Because the infant was born by vaginal delivery, this test is recommended.

**Correct Answer:** 1

**Rationale 1:** Screening for phenylketonuria is required by law in every state. It is not done according to high-risk characteristics or type of delivery.

**Rationale 2:** Screening for phenylketonuria is required by law in every state. It is not done according to high-risk characteristics or type of delivery.

**Rationale 3:** Screening for phenylketonuria is required by law in every state. It is not done according to high-risk characteristics or type of delivery.

**Rationale 4:** Screening for phenylketonuria is required by law in every state. It is not done according to high-risk characteristics or type of delivery.

**Global Rationale:** Screening for phenylketonuria is required by law in every state. It is not done according to high-risk characteristics or type of delivery.

**Cognitive Level:** Applying

**Client Need:** Health Promotion and Maintenance

**Client Need Sub:**

**Nursing/Integrated Concepts:** Nursing Process: Assessment

**Learning Outcome:** LO 30.3 Summarize signs and symptoms that may indicate a disorder of the endocrine system.

**Question 13**

**Type:** MCSA

The nurse is administering a dose of rapid-acting insulin at 0800 to an insulin-dependent pediatric client. Based on when the insulin peaks, when will the client be at greatest risk for a hypoglycemic episode?

1. At about noon
2. Between bedtime and breakfast the next morning
3. Between lunch and dinner
4. Around 0930

**Correct Answer:** 4

**Rationale 1:** Rapid-acting insulin peaks 30-90 minutes after administration. An injection given at 0800 would peak around 0930.

**Rationale 2:** Rapid-acting insulin peaks 30-90 minutes after administration. An injection given at 0800 would peak around 0930.

**Rationale 3:** Rapid-acting insulin peaks 3090 minutes after administration. An injection given at 0800 would peak around 0930.

**Rationale 4:** Rapid-acting insulin peaks 3090 minutes after administration. An injection given at 0800 would peak around 0930.

**Global Rationale:** Rapid-acting insulin peaks 3090 minutes after administration. An injection given at 0800 would peak around 0930.

**Cognitive Level:** Applying

**Client Need:** Physiological Integrity

**Client Need Sub:** Pharmacological and Parenteral Therapies

**Nursing/Integrated Concepts:** Nursing Process: Planning

**Learning Outcome:** LO 30.7 Distinguish between the nursing care of the child with type 1 and type 2 diabetes.

**Question 14**

**Type:** MCMA

Which teaching tips should be included when instructing parents on hydrocortisone administration?

**Standard Text:** Select all that apply.

1. Maintain prescribed administration times.
2. Never discontinue medication abruptly.
3. Injections might be necessary when unable to take by mouth.
4. Lower doses are needed during illness.
5. Keep an emergency kit with the child at all times.

**Correct Answer:** 1,2,3,5

**Rationale 1:** Maintaining prescribed administration times is important, as they follow the normal body release of cortisol. Abruptly discontinuing a steroid is not recommended. Giving injections when unable to take by mouth and during emergencies is important to maintain cortisol levels. Higher, not lower, doses are needed during illness.

**Rationale 2:** Maintaining prescribed administration times is important, as they follow the normal body release of cortisol. Abruptly discontinuing a steroid is not recommended. Giving injections when unable to take by mouth and during emergencies is important to maintain cortisol levels. Higher, not lower, doses are needed during illness.

**Rationale 3:** Maintaining prescribed administration times is important, as they follow the normal body release of cortisol. Abruptly discontinuing a steroid is not recommended. Giving injections when unable to take by mouth and during emergencies is important to maintain cortisol levels. Higher, not lower, doses are needed during illness.

**Rationale 4:** Maintaining prescribed administration times is important, as they follow the normal body release of cortisol. Abruptly discontinuing a steroid is not recommended. Giving injections when unable to take by mouth and during emergencies is important to maintain cortisol levels. Higher, not lower, doses are needed during illness.

**Rationale 5:** Maintaining prescribed administration times is important, as they follow the normal body release of cortisol. Abruptly discontinuing a steroid is not recommended. Giving injections when unable to take by mouth and during emergencies is important to maintain cortisol levels. Higher, not lower, doses are needed during illness.

**Global Rationale:** Maintaining prescribed administration times is important, as they follow the normal body release of cortisol. Abruptly discontinuing a steroid is not recommended. Giving

injections when unable to take by mouth and during emergencies is important to maintain cortisol levels. Higher, not lower, doses are needed during illness.

**Cognitive Level:** Applying

**Client Need:** Physiological Integrity

**Client Need Sub:** Pharmacological and Parenteral Therapies

**Nursing/Integrated Concepts:** Nursing Process: Planning

**Learning Outcome:** LO 30.6 Develop a family education plan for the child who needs lifelong cortisol replacement.

### Question 15

**Type:** MCSA

The nurse is planning care for a pediatric client diagnosed with adrenal hyperplasia. Which nursing diagnosis is most appropriate for this client?

1. Impaired Social Interaction Related to Unnatural Facial Features
2. Nutrition: Less than Body Requirements due to Nausea and Vomiting
3. Depression Related to Inability to Take in Oral Fluids
4. Risk for Deficient Fluid Volume Related to Failure of Regulatory Mechanisms

**Correct Answer:** 4

**Rationale 1:** Adrenal hyperplasia alters the regulatory mechanisms, creating a fluid volume deficit. There is no major nutritional deficit, social interaction, or depression related directly to the diagnosis of adrenal hyperplasia.

**Rationale 2:** Adrenal hyperplasia alters the regulatory mechanisms, creating a fluid volume deficit. There is no major nutritional deficit, social interaction, or depression related directly to the diagnosis of adrenal hyperplasia.

**Rationale 3:** Adrenal hyperplasia alters the regulatory mechanisms, creating a fluid volume deficit. There is no major nutritional deficit, social interaction, or depression related directly to the diagnosis of adrenal hyperplasia.

**Rationale 4:** Adrenal hyperplasia alters the regulatory mechanisms, creating a fluid volume deficit. There is no major nutritional deficit, social interaction, or depression related directly to the diagnosis of adrenal hyperplasia.

**Global Rationale:** Adrenal hyperplasia alters the regulatory mechanisms, creating a fluid volume deficit. There is no major nutritional deficit, social interaction, or depression related directly to the diagnosis of adrenal hyperplasia.

**Cognitive Level:** Applying

**Client Need:** Physiological Integrity

**Client Need Sub:** Physiological Adaptation

**Nursing/Integrated Concepts:** Nursing Process: Planning

**Learning Outcome:** LO 30.8 Plan care for the child with an inherited metabolic disorder.

### Question 16

**Type:** MCMA

The nurse is planning care for pediatric clients who have diagnoses that impact the endocrine system. Which changes occurring during the school-age and adolescence have a direct impact on the endocrine system?

**Standard Text:** Select all that apply.

1. Puberty

2. Adrenarche
3. Menarche
4. Sexual exploration
5. Risk-taking behavior

**Correct Answer:** 1,2,3

**Rationale 1:** Puberty, adrenarche, and menarche are all changes that occur during the school age and adolescence that have a direct impact on the endocrine system. Sexual exploration and risk-taking behaviors do not have a direct impact on the endocrine system.

**Rationale 2:** Puberty, adrenarche, and menarche are all changes that occur during the school age and adolescence that have a direct impact on the endocrine system. Sexual exploration and risk-taking behaviors do not have a direct impact on the endocrine system.

**Rationale 3:** Puberty, adrenarche, and menarche are all changes that occur during the school age and adolescence that have a direct impact on the endocrine system. Sexual exploration and risk-taking behaviors do not have a direct impact on the endocrine system.

**Rationale 4:** Puberty, adrenarche, and menarche are all changes that occur during the school age and adolescence that have a direct impact on the endocrine system. Sexual exploration and risk-taking behaviors do not have a direct impact on the endocrine system.

**Rationale 5:** Puberty, adrenarche, and menarche are all changes that occur during the school age and adolescence that have a direct impact on the endocrine system. Sexual exploration and risk-taking behaviors do not have a direct impact on the endocrine system.

**Global Rationale:** Puberty, adrenarche, and menarche are all changes that occur during the school age and adolescence that have a direct impact on the endocrine system. Sexual exploration and risk-taking behaviors do not have a direct impact on the endocrine system.

**Cognitive Level:** Applying

**Client Need:** Physiological Integrity

**Client Need Sub:** Physiological Adaptation

**Nursing/Integrated Concepts:** Nursing Process: Planning

**Learning Outcome:** LO 30.1 Describe the anatomy and physiology of the endocrine system and pediatric differences.

**Question 17**

**Type:** MCMA

The nurse educator is teaching a group of nursing students about the endocrine system. Which statements are appropriate for the educator to include in the teaching session?

**Standard Text:** Select all that apply.

1. Gonadotropin-releasing hormone stimulates the anterior pituitary to produce LH and FSH.
2. Growth hormone regulates linear bone growth and growth of all tissues.
3. Antidiuretic hormone regulates urine concentration by the kidneys.
4. Thyroid hormone regulates serum calcium levels and phosphorus excretion.
5. Parathyroid hormone regulates metabolism of cells and body heat production.

**Correct Answer:** 1,2,3

**Rationale 1:** All statements are correct except the statements regarding the thyroid hormone and the parathyroid hormone. The thyroid hormone regulates metabolism of the cells and body heat production, not the parathyroid hormone. The parathyroid hormone regulates serum calcium levels and phosphorus excretion.



**Rationale 2:** All statements are correct except the statements regarding the thyroid hormone and the parathyroid hormone. The thyroid hormone regulates metabolism of the cells and body heat production, not the parathyroid hormone. The parathyroid hormone regulates serum calcium levels and phosphorus excretion.

**Rationale 3:** All statements are correct except the statements regarding the thyroid hormone and the parathyroid hormone. The thyroid hormone regulates metabolism of the cells and body heat production, not the parathyroid hormone. The parathyroid hormone regulates serum calcium levels and phosphorus excretion.

**Rationale 4:** All statements are correct except the statements regarding the thyroid hormone and the parathyroid hormone. The thyroid hormone regulates metabolism of the cells and body heat production, not the parathyroid hormone. The parathyroid hormone regulates serum calcium levels and phosphorus excretion.

**Rationale 5:** All statements are correct except the statements regarding the thyroid hormone and the parathyroid hormone. The thyroid hormone regulates metabolism of the cells and body heat production, not the parathyroid hormone. The parathyroid hormone regulates serum calcium levels and phosphorus excretion.

**Global Rationale:** All statements are correct except the statements regarding the thyroid hormone and the parathyroid hormone. The thyroid hormone regulates metabolism of the cells and body heat production, not the parathyroid hormone. The parathyroid hormone regulates serum calcium levels and phosphorus excretion.

**Cognitive Level:** Analyzing

**Client Need:** Physiological Integrity

**Client Need Sub:** Physiological Adaptation

**Nursing/Integrated Concepts:** Nursing Process: Implementation

**Learning Outcome:** LO 30.2 Identify the function of important hormones of the endocrine system.

**Question 18**

**Type:** MCMA

The nurse is providing education to a group of student nurses regarding disorders of the endocrine system that can cause short stature. Which disorders will the nurse include in the educational session?

**Standard Text:** Select all that apply.

1. Hypothyroidism
2. Turner syndrome
3. Type 1 diabetes mellitus
4. Diabetes insipidus
5. Cushing syndrome

**Correct Answer:** 1,2,5

**Rationale 1:** There are many disorders of the endocrine system that can cause short stature including hypothyroidism, Turner syndrome, and Cushing syndrome. Type 1 diabetes mellitus and diabetes insipidus are not endocrine disorders that cause short stature.

**Rationale 2:** There are many disorders of the endocrine system that can cause short stature including hypothyroidism, Turner syndrome, and Cushing syndrome. Type 1 diabetes mellitus and diabetes insipidus are not endocrine disorders that cause short stature.

**Rationale 3:** There are many disorders of the endocrine system that can cause short stature including hypothyroidism, Turner syndrome, and Cushing syndrome. Type 1 diabetes mellitus and diabetes insipidus are not endocrine disorders that cause short stature.

**Rationale 4:** There are many disorders of the endocrine system that can cause short stature including hypothyroidism, Turner syndrome, and Cushing syndrome. Type 1 diabetes mellitus and diabetes insipidus are not endocrine disorders that cause short stature.

**Rationale 5:** There are many disorders of the endocrine system that can cause short stature including hypothyroidism, Turner syndrome, and Cushing syndrome. Type 1 diabetes mellitus and diabetes insipidus are not endocrine disorders that cause short stature.

**Global Rationale:** There are many disorders of the endocrine system that can cause short stature including hypothyroidism, Turner syndrome, and Cushing syndrome. Type 1 diabetes mellitus and diabetes insipidus are not endocrine disorders that cause short stature.

## Chapter 32: Genetic Disorders

### MULTIPLE CHOICE

1. A parent whose child has been diagnosed with a cognitive deficit should be counseled that intellectual impairment:

- a. is usually due to a genetic defect.
- b. may be caused by a variety of factors.
- c. is rarely due to first-trimester events.
- d. is usually caused by parental intellectual impairment.

ANS: B

There is a multitude of causes for intellectual impairment. In nearly half of the cases, a specific cause has not been identified. Only 5% of children with intellectual impairment are affected by a genetic defect. One-third of children with intellectual impairment are affected by first-trimester events. Intellectual impairment can be transmitted to a child only if the parent has a genetic disorder.

2. A parent asks the nurse why a developmental assessment is being conducted for a child during a routine well-child visit. The nurse answers based on the knowledge that routine developmental assessments during well-child visits are:

- a. not necessary unless the parents request them.
- b. the best method for early detection of cognitive disorders.
- c. frightening to parents and children and should be avoided.
- d. valuable in measuring intelligence in children.

ANS: B

Early detection of cognitive disorders can be facilitated through assessment of development at each well-child examination. Developmental assessment is a component of all well-child

examinations. Developmental assessments are not frightening when the parent and child are educated about the purpose of the assessment and are not intended to measure intelligence.

3. The father of a child recently diagnosed with developmental delay is very rude and hostile toward the nurses. This father was cooperative during the child's evaluation a month ago. What is the best explanation for this change in parental behavior?

- a. The father is exhibiting symptoms of a psychiatric illness.
- b. The father may be abusing the child.
- c. The father is resentful of the time he is missing from work for this appointment.
- d. The father is in the anger stage of the grief process.

ANS: D

After a child is diagnosed with a developmental delay, the family may feel grief. The grief process begins with a stage of disbelief and denial and then progresses to anger. It is not possible to determine that a parent is exhibiting symptoms of a psychiatric illness on the basis of a single situation. The scenario does not give any information to suggest child abuse. Although the father may have difficulty balancing his work schedule with medical appointments for his child, a more likely explanation for his behavior change is that he is grieving the loss of a normal child.

4. An appropriate nursing diagnosis for a child with a cognitive dysfunction who has a limited ability to anticipate danger is:

- a. Impaired social interaction.
- b. Deficient knowledge.
- c. Risk for injury.
- d. Ineffective coping.

ANS: C

The nurse needs to know that limited cognitive abilities to anticipate danger lead to risk for injury. Impaired social interaction is indeed a concern for the child with a cognitive disorder but does not address the limited ability to anticipate danger. Because of the child's cognitive deficit, knowledge will not be retained and will not decrease the risk for injury. Ineffective individual coping does not address the limited ability to anticipate danger.

5. Anticipatory guidance for the family of a preadolescent with a cognitive dysfunction should include information about:

- a. institutional placement.
- b. sexual development.
- c. sterilization.
- d. clothing.

ANS: B

Preadolescents who have a cognitive dysfunction may have normal sexual development without the emotional and cognitive abilities to deal with it. It is important to assist the family and child through this developmental stage. Preadolescence does require the child to be institutionalized. Sterilization is not an appropriate intervention when a child has a cognitive dysfunction. By the time a child reaches preadolescence, the family should have received counseling on age-appropriate clothing.

6. The mother of a 9-year-old child with Down syndrome discusses the child's language abilities. The nurse is not surprised to learn which information about the child's language development?

- a. Can take turns during conversation
- b. Has good grammar
- c. Can speak a foreign language
- d. Has difficulty in carrying on a conversation

ANS: A

Social language involves maintaining a conversation on a specific topic and taking turns during the conversation. Children with Down syndrome generally have good social language. The language development of children with Down syndrome involves difficulty with grammar but strength in social usage. It would not be expected for children with Down syndrome to be characterized as typically knowing a foreign language. Children with Down syndrome have a general strength in social language such as greeting others and carrying on a conversation in a give-and-take manner and have social skills that exceed expected skills on the basis of intellectual capacity.

7. The infant with Down syndrome is closely monitored during the first year of life for which condition?

- a. Thyroid complications
- b. Orthopedic malformations
- c. Dental malformation
- d. Cardiac abnormalities

ANS: D

The high incidence of cardiac defects in children with Down syndrome makes assessment for signs and symptoms of these defects important during the first year. Infants with Down syndrome are not known to have thyroid complications. Orthopedic malformations may be present, but special attention is given to assessment for cardiac and gastrointestinal abnormalities. Dental malformations are not a major concern compared with the life-threatening complications of cardiac defects.

8. Which action is contraindicated when a child with Down syndrome is hospitalized?

- a. Determine the child's vocabulary for specific body functions.
- b. Assess the child's hearing and visual capabilities.
- c. Encourage parents to leave the child alone.
- d. Have meals served at the child's usual meal times.

ANS: C

The child with Down syndrome needs routine schedules and consistency. Having familiar people present, especially parents, helps to decrease the child's anxiety. To communicate effectively with the child, it is important to know the child's particular vocabulary for specific body functions. Children with Down syndrome have a high incidence of hearing loss and vision problems and should have hearing and vision assessed whenever they are in a healthcare facility. Routine schedules and consistency are important to children.

9. A nurse is giving a parent information about autism. Which statement made by the parent indicates understanding of the teaching?

- a. Autism is characterized by periods of remission and exacerbation.
- b. The onset of autism usually occurs before 2 1/2 years of age.
- c. Children with autism have imitation and gesturing skills.
- d. Autism can be treated effectively with medication.

ANS: B

The onset of autism usually occurs before 30 months of age. Autism does not have periods of remissions and exacerbations. Autistic children lack imitative skills. Medications are of limited use in children with autism.

10. Which should the nurse keep in mind when planning to communicate with a child who is autistic?

- a. The child has normal verbal communication.
- b. Expect the child to use sign language.
- c. The child may exhibit monotone speech and echolalia.
- d. The child is not listening if she is not looking at the nurse.

ANS: C

Children with autism have abnormalities in the production of speech such as a monotone voice or echolalia and inappropriate volume, pitch, rate, rhythm, or intonation. The child has impaired verbal communication and abnormalities in the production of speech. Some autistic children may use sign language, but it is not assumed. Children with autism often are reluctant to initiate direct eye contact.

OBJ: Nursing Process Step: Planning MSC: Psychosocial Integrity

11. What is the best intervention when a child with autism is hospitalized?

- a. Limit the individuals who enter the child's room.
- b. Perform all of the child's activities of daily living for her.
- c. Make sure the nurses know this child may be violent.
- d. Assign the strongest nurse to control the child.

ANS: A

The child with autism is often unable to tolerate the slightest change in routine. Limiting who enters the child's room to those knowledgeable about the child's routine will facilitate the child's adaptation to the hospital environment. The most important nursing consideration when planning care for a child with autism is to assign the child to a nurse who is familiar with the child's routine and to follow that routine. The child should be encouraged to perform toileting and self-care activities as she normally would if she were not in the hospital. There is no indication that the child will be violent. Limiting the number of individuals in contact with the child and maintaining a routine will decrease any chance of violence. Strength should not be a consideration in assignments.

12. Intense stress and isolation as a result of caring for a child with developmental disabilities often lead parents to:

- a. heightened parental achievement.
- b. overuse of the healthcare system.

- c. overindulgence and obesity.
- d. child abuse.

ANS: D

Child abuse and developmental disabilities are often associated. Stress and isolation may hinder parents from reaching their potential. Parents may feel isolated from support and healthcare services. They report that professionals have limited understanding of their children's needs. Although overindulgence and obesity may occur, the best answer is child abuse.

13. A child with Asperger syndrome has also been diagnosed with depression. The nurse understands that two or more disorders in an individual is termed:

- a. comorbidity.
- b. congenital syndrome.
- c. mental retardation.
- d. developmental impairment.

ANS: A

Comorbidity by definition means more than one disorder in an individual. Congenital syndrome means the disorder originated before birth. Mental retardation refers to subaverage intellectual functioning. Developmental impairment refers to functional level.

14. Self-injury, fecal smearing, and severe temper tantrums in a preschool child are symptoms of:

- a. mild intellectual impairment.
- b. severe intellectual impairment.
- c. psychosocial deprivation.
- d. separation anxiety.

ANS: B

Self-injury, fecal smearing, and severe temper tantrums in a preschool child are symptoms of severe intellectual impairment. Mild intellectual impairment is characterized by social isolation or depression. Psychosocial deprivation may be a cause of intellectual impairment. The symptoms listed are characteristic of severe intellectual impairment. Symptoms of separation anxiety include protest, despair, and detachment.

15. Throughout their life span, cognitively impaired children are less capable of managing environmental challenges and are at risk for which problem?

- a. Nutritional deficits
- b. Visual impairments
- c. Physical injuries
- d. Psychiatric problems

ANS: C

Safety is a challenge for cognitively impaired children. Decreased capability to manage environmental challenges may lead to physical injuries. Nutritional deficits are related more to dietary habits and the caregivers' understanding of nutrition. Visual impairments are unrelated to cognitive impairment. Psychiatric problems may coexist with cognitive impairment but are not environmental challenges.

16. The parents of a child born at 36 weeks of gestation who had respiratory problems requiring 3 days of oxygen therapy are concerned that the infant may have an intellectual impairment. The best nursing statement to the parents is which of the following?

- a. A diagnosis of intellectual impairment is not made until the child enters school and experiences academic failure.
- b. Routine assessment of development during pediatric visits is the best method of early detection.
- c. The baby is not at risk for an intellectual impairment.
- d. Tests for intellectual impairments are not reliable for children younger than 3 years.

ANS: B

Routine assessment of development from birth is the best method for early detection of problems. Intellectual impairment may be detected before school age. The baby may be at risk for an intellectual impairment as a result of poor oxygenation. The Denver Developmental Screening test may be unreliable for children younger than 3 years, but other assessment tools are available. Several neuropsychological tests are available.

17. Parents of a child with fragile X syndrome ask the nurse about genetic transmission of this syndrome. In response, the nurse correctly explains that fragile X syndrome is:

- a. most commonly seen in girls.
- b. acquired after birth.
- c. usually transmitted by the male carrier.
- d. usually transmitted by the female carrier.

ANS: D

The gene causing fragile X syndrome is transmitted by the mother. Fragile X syndrome is most common in males, is congenital, and is not transmitted by a male carrier.

18. The best setting for daytime care for a 5-year-old autistic child whose mother works is:

- a. private day care.
- b. public school.
- c. his own home with a sitter.
- d. a specialized program that facilitates interaction by use of behavioral methods.

ANS: D

Autistic children can benefit from specialized educational programs that address their special needs. Day care programs generally do not have resources to meet the needs of severely impaired children. To best meet the needs of an autistic child, the public school may refer the child to a specialized program. A sitter might not have the skills to interact with an autistic child.

19. Parents have learned that their 6-year-old child is autistic. The nurse may help the parents to cope by explaining that the child will:

- a. have abnormal ways of interacting with other children and adults.
- b. outgrow the condition by early adulthood.
- c. have average social skills.
- d. probably have age-appropriate language skills.

ANS: A

Abnormal interaction with people is one of the several characteristics of autism. No evidence supports the belief that autism is outgrown. Autistic children have abnormal ways of relating to people (social skills). Speech and language skills are usually delayed in autistic children.

20. An autistic child is hospitalized with asthma. The nurse should plan care so that the:

- a. parents expectations are met.
- b. child's routine habits and preferences are maintained.
- c. child is supported through the autistic crisis.
- d. parents need not be at the hospital.

ANS: B

Children with autism are often unable to tolerate even slight changes in routine. Focus of care is on the child's needs rather than on the parents' desires. Autism is a life-long condition. The presence of the parents is almost always required when an autistic child is hospitalized.

### **MULTIPLE RESPONSE**

1. Which of the following treatment guidelines would be contraindicated when counseling the family of an infant with fragile X syndrome? Select all that apply.

- a. Advise genetic testing for family members.
- b. Delay speech therapy until the child is 2 years of age.
- c. Educate the family that their child will probably have normal intelligence.
- d. Refer the family to an early intervention program.

ANS: B, C

Speech therapy should be started in the first year of life and continued on an ongoing basis.

Waiting until the child is 2 years old would not be appropriate. Children with fragile X syndrome have a high incidence of intellectual, language, and social dysfunctions. It is the most common inherited cause of mental retardation. Because fragile X syndrome is an X-linked recessive disorder, genetic testing is appropriate. Early intervention programs assess the child and develop a plan of intervention; this is appropriate.

2. A nurse is assessing a newborn for facial feature characteristics associated with fetal alcohol syndrome. Which characteristics should the nurse expect to assess? Select all that apply.

- a. Short palpebral fissures
- b. Smooth philtrum
- c. Low set ears
- d. Inner epicanthal folds
- e. Thin upper lip

ANS: A, B, E

Infants with fetal alcohol syndrome may have characteristic facial features, including short palpebral fissures, a smooth philtrum (the vertical groove in the median portion of the upper lip), and a thin upper lip. Low set ears and inner epicanthal folds are associated with Down syndrome.

3. A nurse should plan to implement which interventions for a child admitted with inorganic failure to thrive? Select all that apply.

- a. Observation of parent-child interactions



- 
- b. Assignment of different nurses to care for the child from day to day
  - c. Use of 28 calorie per ounce concentrated formulas
  - d. Administration of daily multivitamin supplements
  - e. Role-modeling appropriate adultchild interactions
- 

ANS: A, D, E

The nurse should plan to assess parentchild interactions when a child is admitted for nonorganic failure to thrive. The observations should include how the child is held and fed, how eye contact is initiated and maintained, and the facial expressions of both the child and the caregiver during interactions. Role modeling and teaching appropriate adultchild interactions (including holding, touching, and feeding the child) will facilitate appropriate parentchild relationships, enhance parents confidence in caring for their child, and facilitate expression by the parents of realistic expectations based on the childs developmental needs. Daily multivitamin supplements with minerals are often prescribed to ensure that specific nutritional deficiencies do not occur in the course of rapid growth. The nursing staff assigned to care for the child should be consistent. Providing a consistent caregiver from the nursing staff increases trust and provides the child with an adult who anticipates his or her needs and who is able to role model child care to the parent. Caloric enrichment of food is essential, and formula may be concentrated in titrated amounts up to 24 calories per ounce. Greater concentrations can lead to diarrhea and dehydration.

## Chapter 33: Alterations in Cognition and Mental Health

### Question 1

Type: MCSA

A nurse is caring for four pediatric clients in the hospital. Which client should the nurse refer for play therapy?

1. An adolescent with asthma
2. A preschool-age child with a fractured femur
3. A school-age child having an appendectomy
4. An infant with sepsis

**Correct Answer: 2**

**Rationale 1:** Play therapy is often used with preschool and school-age children who are experiencing anxiety, stress, and other specific nonpsychotic mental disorders. In this case, the child who experiences a condition that requires longer hospitalization and recovery, such as a fracture of the femur, should be referred for play therapy. The adolescent with asthma, the school-age child having an appendectomy, and the infant with sepsis do not have as high a need for play therapy as the preschool child with a broken bone.

**Rationale 2:** Play therapy is often used with preschool and school-age children who are experiencing anxiety, stress, and other specific nonpsychotic mental disorders. In this case, the child who experiences a condition that requires longer hospitalization and recovery, such as a fracture of the femur, should be referred for play therapy. The adolescent with asthma, the

school-age child having an appendectomy, and the infant with sepsis do not have as high a need for play therapy as the preschool child with a broken bone.

**Rationale 3:** Play therapy is often used with preschool and school-age children who are experiencing anxiety, stress, and other specific nonpsychotic mental disorders. In this case, the child who experiences a condition that requires longer hospitalization and recovery, such as a fracture of the femur, should be referred for play therapy. The adolescent with asthma, the school-age child having an appendectomy, and the infant with sepsis do not have as high a need for play therapy as the preschool child with a broken bone.

**Rationale 4:** Play therapy is often used with preschool and school-age children who are experiencing anxiety, stress, and other specific nonpsychotic mental disorders. In this case, the child who experiences a condition that requires longer hospitalization and recovery, such as a fracture of the femur, should be referred for play therapy. The adolescent with asthma, the school-age child having an appendectomy, and the infant with sepsis do not have as high a need for play therapy as the preschool child with a broken bone.

**Global Rationale:** Play therapy is often used with preschool and school-age children who are experiencing anxiety, stress, and other specific nonpsychotic mental disorders. In this case, the child who experiences a condition that requires longer hospitalization and recovery, such as a fracture of the femur, should be referred for play therapy. The adolescent with asthma, the school-age child having an appendectomy, and the infant with sepsis do not have as high a need for play therapy as the preschool child with a broken bone.

**Cognitive Level:** Applying

**Client Need:** Psychosocial Integrity

**Client Need Sub:**

**Nursing/Integrated Concepts:** Nursing Process: Implementation

**Learning Outcome:** LO 28.3 Plan for the nursing management of children and adolescents with mental health alterations in the hospital and community settings.

## **Question 2**

**Type:** MCSA

A school-age client diagnosed with autism is admitted to the hospital because of recent vomiting and diarrhea. Which intervention by the nurse is most appropriate upon admission?

1. Take the child on a quick tour of the whole unit.
2. Take the child to the playroom immediately for arts and crafts.
3. Orient the child to the hospital room with minimal distractions.
4. Admit the child to a four-bed unit with small children.

**Correct Answer:** 3

**Rationale 1:** Autistic children interpret and respond to the environment differently from other individuals. The child needs to be oriented to new settings and adjusts best to a quiet, controlled environment. A hospital room with only one other child is best.

**Rationale 2:** Autistic children interpret and respond to the environment differently from other individuals. The child needs to be oriented to new settings and adjusts best to a quiet, controlled environment. A hospital room with only one other child is best.

**Rationale 3:** Autistic children interpret and respond to the environment differently from other individuals. The child needs to be oriented to new settings and adjusts best to a quiet, controlled environment. A hospital room with only one other child is best.

**Rationale 4:** Autistic children interpret and respond to the environment differently from other individuals. The child needs to be oriented to new settings and adjusts best to a quiet, controlled environment. A hospital room with only one other child is best.

**Global Rationale:** Autistic children interpret and respond to the environment differently from other individuals. The child needs to be oriented to new settings and adjusts best to a quiet, controlled environment. A hospital room with only one other child is best.

**Cognitive Level:** Applying

**Client Need:** Psychosocial Integrity

**Client Need Sub:**

**Nursing/Integrated Concepts:** Nursing Process: Planning

**Learning Outcome:** LO 28.5 Use evidence-based practice to plan nursing management for children with cognitive alterations.

**Question 3**

**Type:** MCSA

A nurse is planning preoperative teaching for a school-age client scheduled to have a tonsillectomy. The client has a history of attention deficit hyperactivity disorder (ADHD). Which intervention will the nurse include in the plan of care?

1. Give instructions verbally and use a picture pamphlet, repeating points more than once.
2. Ask other children who have had this procedure to talk to the child.
3. Allow the child to lead the session to gain a sense of control.
4. Play a television show in the background.

**Correct Answer: 1**

**Rationale 1:** A teaching session for a child with ADHD should foster attention. Giving instructions verbally and in written form, repeating points, will improve learning for a child with ADHD. The environment needs to be quiet, with minimal distractions. A child who has difficulty concentrating should not lead the session even though the child needs to feel in control. Talking to other children who have had this procedure may not foster understanding, because this child has ADHD. Distractions such as noise from a television should be minimized.

**Rationale 2:** A teaching session for a child with ADHD should foster attention. Giving instructions verbally and in written form, repeating points, will improve learning for a child with ADHD. The environment needs to be quiet, with minimal distractions. A child who has difficulty concentrating should not lead the session even though the child needs to feel in control. Talking to other children who have had this procedure may not foster understanding, because this child has ADHD. Distractions such as noise from a television should be minimized.

**Rationale 3:** A teaching session for a child with ADHD should foster attention. Giving instructions verbally and in written form, repeating points, will improve learning for a child with ADHD. The environment needs to be quiet, with minimal distractions. A child who has difficulty concentrating should not lead the session even though the child needs to feel in control. Talking to other children who have had this procedure may not foster understanding, because this child has ADHD. Distractions such as noise from a television should be minimized.

**Rationale 4:** A teaching session for a child with ADHD should foster attention. Giving instructions verbally and in written form, repeating points, will improve learning for a child with ADHD. The environment needs to be quiet, with minimal distractions. A child who has difficulty concentrating should not lead the session even though the child needs to feel in control. Talking

to other children who have had this procedure may not foster understanding, because this child has ADHD. Distractions such as noise from a television should be minimized.

**Global Rationale:** A teaching session for a child with ADHD should foster attention. Giving instructions verbally and in written form, repeating points, will improve learning for a child with ADHD. The environment needs to be quiet, with minimal distractions. A child who has difficulty concentrating should not lead the session even though the child needs to feel in control. Talking to other children who have had this procedure may not foster understanding, because this child has ADHD. Distractions such as noise from a television should be minimized.

**Cognitive Level:** Analyzing

**Client Need:** Health Promotion and Maintenance

**Client Need Sub:**

**Nursing/Integrated Concepts:** Nursing Process: Planning

**Learning Outcome:** LO 28.5 Use evidence-based practice to plan nursing management for children with cognitive alterations.

#### **Question 4**

**Type:** MCSA

A school-age client is prescribed Adderall (amphetamine mixed salts) for attention deficit hyperactivity disorder (ADHD). At which time is it most appropriate for the nurse to teach the parents to administer this medication?

1. At bedtime
2. Before lunch
3. With the evening meal
4. Early in the morning

**Correct Answer:** 4

**Rationale 1:** A side effect of Adderall can be insomnia. Administering the medication early in the day can help alleviate the effect of insomnia.

**Rationale 2:** A side effect of Adderall can be insomnia. Administering the medication early in the day can help alleviate the effect of insomnia.

**Rationale 3:** A side effect of Adderall can be insomnia. Administering the medication early in the day can help alleviate the effect of insomnia.

**Rationale 4:** A side effect of Adderall can be insomnia. Administering the medication early in the day can help alleviate the effect of insomnia.

**Global Rationale:** A side effect of Adderall can be insomnia. Administering the medication early in the day can help alleviate the effect of insomnia.

**Cognitive Level:** Applying

**Client Need:** Physiological Integrity

**Client Need Sub:** Pharmacological and Parenteral Therapies

**Nursing/Integrated Concepts:** Nursing Process: Planning

**Learning Outcome:** LO 28.5 Use evidence-based practice to plan nursing management for children with cognitive alterations.

#### **Question 5**

**Type:** MCSA

An adolescent client diagnosed with attention deficit hyperactivity disorder (ADHD) is interested in playing the drums in the school band. Which action by the nurse is the most appropriate?

1. Recommend the child take private lessons and not join the band.
2. Encourage the child to join the band.
3. Consult with the healthcare provider about allowing participation in band activities.
4. Discourage the child from playing in the band.

**Correct Answer: 2**

**Rationale 1:** A child with ADHD may lack connectedness with other children. Participation in a school activity where the rules of working with others can be learned should be encouraged.

**Rationale 2:** A child with ADHD may lack connectedness with other children. Participation in a school activity where the rules of working with others can be learned should be encouraged.

**Rationale 3:** A child with ADHD may lack connectedness with other children. Participation in a school activity where the rules of working with others can be learned should be encouraged.

**Rationale 4:** A child with ADHD may lack connectedness with other children. Participation in a school activity where the rules of working with others can be learned should be encouraged.

**Global Rationale:** A child with ADHD may lack connectedness with other children.

Participation in a school activity where the rules of working with others can be learned should be encouraged.

**Cognitive Level:** Applying

**Client Need:** Health Promotion and Maintenance

**Client Need Sub:**

**Nursing/Integrated Concepts:** Nursing Process: Implementation

**Learning Outcome:** LO 28.5 Use evidence-based practice to plan nursing management for children with cognitive alterations.

#### **Question 6**

**Type:** MCSA

A school-age client is evaluated for depression. Which assessment tool does the nurse anticipate will be used by the psychologist?

1. Denver Developmental Screening tool
2. Revised Childrens Manifest Anxiety Scale
3. Parent Developmental Questionnaire
4. Disruptive Behavior Disorder Scale

**Correct Answer: 2**

**Rationale 1:** The Revised Childrens Manifest Anxiety Scale is a tool used to assess for depression. The Denver Developmental Screening tool and the Parent Developmental Questionnaire are tools used to assess development. The Disruptive Behavior Disorder Scale is used to assess for autism.

**Rationale 2:** The Revised Childrens Manifest Anxiety Scale is a tool used to assess for depression. The Denver Developmental Screening tool and the Parent Developmental Questionnaire are tools used to assess development. The Disruptive Behavior Disorder Scale is used to assess for autism.

**Rationale 3:** The Revised Childrens Manifest Anxiety Scale is a tool used to assess for depression. The Denver Developmental Screening tool and the Parent Developmental Questionnaire are tools used to assess development. The Disruptive Behavior Disorder Scale is used to assess for autism.

**Rationale 4:** The Revised Childrens Manifest Anxiety Scale is a tool used to assess for depression. The Denver Developmental Screening tool and the Parent Developmental

Questionnaire are tools used to assess development. The Disruptive Behavior Disorder Scale is used to assess for autism.

**Global Rationale:** The Revised Childrens Manifest Anxiety Scale is a tool used to assess for depression. The Denver Developmental Screening tool and the Parent Developmental Questionnaire are tools used to assess development. The Disruptive Behavior Disorder Scale is used to assess for autism.

**Cognitive Level:** Analyzing

**Client Need:** Health Promotion and Maintenance

**Client Need Sub:**

**Nursing/Integrated Concepts:** Nursing Process: Assessment

**Learning Outcome:** LO 28.2 Discuss the clinical manifestations of the major mental health alterations of childhood and adolescence.

### Question 7

**Type:** FIB

A nurse is calculating the maximum recommended dose that a school-age client diagnosed with depression can receive for sertraline (Zoloft). The recommended pediatric dose for sertraline (Zoloft) is 1.5 to 3 mg/kg/day. If the child weighs 31 kg, the maximum recommended dose for this child would be \_\_\_\_ mg.

**Standard Text:** Round answer to the nearest whole number.

**Correct Answer:** 93

**Rationale:** The maximum recommended dose for sertraline (Zoloft) is 3 mg/kg/day. If the child weighs 31 kg, it would be  $3 \times 31 = 93$  mg a day.

**Global Rationale:** The maximum recommended dose for sertraline (Zoloft) is 3 mg/kg/day. If the child weighs 31 kg, it would be  $3 \times 31 = 93$  mg a day.

**Cognitive Level:** Applying

**Client Need:** Safe Effective Care Environment

**Client Need Sub:** Safety and Infection Control

**Nursing/Integrated Concepts:** Nursing Process: Implementation

**Learning Outcome:** LO 28.3 Plan for the nursing management of children and adolescents with mental health alterations in the hospital and community settings.

### Question 8

**Type:** MCSA

The nurse is planning care for a school-age client, who is diagnosed with bipolar disorder and is having suicidal ideations. Which nursing diagnosis is the priority for this client?

1. Powerlessness Related to Mood Instability
2. Social Isolation Related to Disorder
3. Risk for Injury Related to Suicidal Ideas
4. Impaired Social Interaction

**Correct Answer:** 3

**Rationale 1:** The priority for a child with bipolar disorder and suicidal ideas is safety. Risk for Injury would be the nursing diagnosis that would address safety for the child. The other diagnoses have a lower priority.

**Rationale 2:** The priority for a child with bipolar disorder and suicidal ideas is safety. Risk for Injury would be the nursing diagnosis that would address safety for the child. The other diagnoses have a lower priority.

**Rationale 3:** The priority for a child with bipolar disorder and suicidal ideas is safety. Risk for Injury would be the nursing diagnosis that would address safety for the child. The other diagnoses have a lower priority.

**Rationale 4:** The priority for a child with bipolar disorder and suicidal ideas is safety. Risk for Injury would be the nursing diagnosis that would address safety for the child. The other diagnoses have a lower priority.

**Global Rationale:** The priority for a child with bipolar disorder and suicidal ideas is safety. Risk for Injury would be the nursing diagnosis that would address safety for the child. The other diagnoses have a lower priority.

**Cognitive Level:** Analyzing

**Client Need:** Safe Effective Care Environment

**Client Need Sub:** Safety and Infection Control

**Nursing/Integrated Concepts:** Nursing Process: Diagnosis

**Learning Outcome:** LO 28.2 Discuss the clinical manifestations of the major mental health alterations of childhood and adolescence.

### **Question 9**

**Type:** MCSA

An adolescent client diagnosed with panic disorder is prescribed paroxetine (Paxil), a selective serotonin reuptake inhibitor (SSRI). The client tells the nurse she often takes diet pills because she is trying to lose weight. Which response by the nurse is the most appropriate?

1. You can continue with the paroxetine (Paxil) and the diet pills.
2. It is important to stop both the paroxetine (Paxil) and the diet pills.
3. Discontinue using the diet pills while taking the paroxetine (Paxil).
4. You should discuss the safety of these two medications pills with a pharmacist.

**Correct Answer:** 3

**Rationale 1:** Serotonin syndrome, the serious and life-threatening side effect of SSRIs, can develop when the drug is taken with diet pills, St. Johns wort, other antidepressants, alcohol, or LSD. In this case, the diet pills should be discontinued in order to avoid serotonin syndrome. The Paxil should not be discontinued, and waiting to discuss the use of diet pills with a pharmacist would not be an appropriate option.

**Rationale 2:** Serotonin syndrome, the serious and life-threatening side effect of SSRIs, can develop when the drug is taken with diet pills, St. Johns wort, other antidepressants, alcohol, or LSD. In this case, the diet pills should be discontinued in order to avoid serotonin syndrome. The Paxil should not be discontinued, and waiting to discuss the use of diet pills with a pharmacist would not be an appropriate option.

**Rationale 3:** Serotonin syndrome, the serious and life-threatening side effect of SSRIs, can develop when the drug is taken with diet pills, St. Johns wort, other antidepressants, alcohol, or LSD. In this case, the diet pills should be discontinued in order to avoid serotonin syndrome. The Paxil should not be discontinued, and waiting to discuss the use of diet pills with a pharmacist would not be an appropriate option.

**Rationale 4:** Serotonin syndrome, the serious and life-threatening side effect of SSRIs, can develop when the drug is taken with diet pills, St. Johns wort, other antidepressants, alcohol, or

LSD. In this case, the diet pills should be discontinued in order to avoid serotonin syndrome. The Paxil should not be discontinued, and waiting to discuss the use of diet pills with a pharmacist would not be an appropriate option.

**Global Rationale:** Serotonin syndrome, the serious and life-threatening side effect of SSRIs, can develop when the drug is taken with diet pills, St. Johns wort, other antidepressants, alcohol, or LSD. In this case, the diet pills should be discontinued in order to avoid serotonin syndrome. The Paxil should not be discontinued, and waiting to discuss the use of diet pills with a pharmacist would not be an appropriate option.

**Cognitive Level:** Applying

**Client Need:** Physiological Integrity

**Client Need Sub:** Pharmacological and Parenteral Therapies

**Nursing/Integrated Concepts:** Nursing Process: Implementation

**Learning Outcome:** LO 28.3 Plan for the nursing management of children and adolescents with mental health alterations in the hospital and community settings.

#### **Question 10**

**Type:** MCSA

The nurse is conducting a health history for a school-age client. The parents of the client tell the nurse that their child has the following behaviors: excessive handwashing, counting objects, and hoarding substances. Based on these assessment findings, which diagnosis does the nurse anticipate for this client?

1. Depression
2. Separation anxiety disorder
3. Obsessive-compulsive disorder
4. Bipolar disorder

**Correct Answer:** 3

**Rationale 1:** Common behaviors of obsessive-compulsive disorder (OCD) are excessive handwashing, counting objects, and hoarding substances. These practices may take up one or more hours each day.

**Rationale 2:** Common behaviors of obsessive-compulsive disorder (OCD) are excessive handwashing, counting objects, and hoarding substances. These practices may take up one or more hours each day.

**Rationale 3:** Common behaviors of obsessive-compulsive disorder (OCD) are excessive handwashing, counting objects, and hoarding substances. These practices may take up one or more hours each day.

**Rationale 4:** Common behaviors of obsessive-compulsive disorder (OCD) are excessive handwashing, counting objects, and hoarding substances. These practices may take up one or more hours each day.

**Global Rationale:** Common behaviors of obsessive-compulsive disorder (OCD) are excessive handwashing, counting objects, and hoarding substances. These practices may take up one or more hours each day.

**Cognitive Level:** Analyzing

**Client Need:** Physiological Integrity

**Client Need Sub:**

**Nursing/Integrated Concepts:** Nursing Process: Assessment



**Learning Outcome:** LO 28.2 Discuss the clinical manifestations of the major mental health alterations of childhood and adolescence.

**Question 11**

**Type:** MCSA

A nurse is concerned about the safety of a suicidal adolescent client and wants to be prepared for the use of physical restraints, if necessary. Which action by the nurse is the most appropriate in this situation?

1. Obtain a healthcare providers order, and follow the institutions policy for use of restraints.
2. Apply the restraints, and then obtain a healthcare providers order later.
3. Apply the restraints if parental permission is obtained.
4. Ask for the childs permission before applying the restraints.

**Correct Answer:** 1

**Rationale 1:** Restraints are used only when ordered by the physician and interdisciplinary team caring for the child. Physical restraint is only a short-term approach to provide immediate safety if necessary. It would not be appropriate to apply the restraints, and then obtain a healthcare providers order. Even if permission is given by the parent and/or child, a healthcare providers order still needs to be obtained.

**Rationale 2:** Restraints are used only when ordered by the physician and interdisciplinary team caring for the child. Physical restraint is only a short-term approach to provide immediate safety if necessary. It would not be appropriate to apply the restraints, and then obtain a healthcare providers order. Even if permission is given by the parent and/or child, a healthcare providers order still needs to be obtained.

**Rationale 3:** Restraints are used only when ordered by the physician and interdisciplinary team caring for the child. Physical restraint is only a short-term approach to provide immediate safety if necessary. It would not be appropriate to apply the restraints, and then obtain a healthcare providers order. Even if permission is given by the parent and/or child, a healthcare providers order still needs to be obtained.

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**Global Rationale:** Restraints are used only when ordered by the physician and interdisciplinary team caring for the child. Physical restraint is only a short-term approach to provide immediate safety if necessary. It would not be appropriate to apply the restraints, and then obtain a healthcare providers order. Even if permission is given by the parent and/or child, a healthcare providers order still needs to be obtained.

**Cognitive Level:** Analyzing

**Client Need:** Safe Effective Care Environment

**Client Need Sub:** Safety and Infection Control

**Nursing/Integrated Concepts:** Nursing Process: Planning

**Learning Outcome:** LO 28.3 Plan for the nursing management of children and adolescents with mental health alterations in the hospital and community settings.

**Question 12**

**Type:** MCMA

A nurse is conducting developmental assessments on several children in the day-care setting. Which child(ren) does the nurse identify as having development delays?

**Standard Text:** Select all that apply.

1. An 18-month-old toddler who is unable to phrase sentences
2. A 5-year-old who is unable to button his shirt
3. A 6-year-old who is unable to sit still for a short story
4. A 2-year-old who is unable to cut with scissors
5. A 2-year-old who cannot recite her phone number

**Correct Answer:** 2,3

**Rationale 1:** A developmental milestone that can indicate learning disability is a kindergarteners being unable to button his shirt. Inability to phrase sentences is considered a delay if not done by 2-1/2 years, inability to sit still for a short story is considered a delay if the child is 3 to 5 years old, and being unable to cut with scissors indicates a delay if not done by kindergarten age. Reciting the phone number is not appropriate for a 2-year-old.

**Rationale 2:** A developmental milestone that can indicate learning disability is a kindergarteners being unable to button his shirt. Inability to phrase sentences is considered a delay if not done by 2-1/2 years, inability to sit still for a short story is considered a delay if the child is 3 to 5 years old, and being unable to cut with scissors indicates a delay if not done by kindergarten age. Reciting the phone number is not appropriate for a 2-year-old.

**Rationale 3:** A developmental milestone that can indicate learning disability is a kindergarteners being unable to button his shirt. Inability to phrase sentences is considered a delay if not done by 2-1/2 years, inability to sit still for a short story is considered a delay if the child is 3 to 5 years old, and being unable to cut with scissors indicates a delay if not done by kindergarten age. Reciting the phone number is not appropriate for a 2-year-old.

**Rationale 4:** A developmental milestone that can indicate learning disability is a kindergarteners being unable to button his shirt. Inability to phrase sentences is considered a delay if not done by 2-1/2 years, inability to sit still for a short story is considered a delay if the child is 3 to 5 years old, and being unable to cut with scissors indicates a delay if not done by kindergarten age. Reciting the phone number is not appropriate for a 2-year-old.

**Rationale 5:** A developmental milestone that can indicate learning disability is a kindergarteners being unable to button his shirt. Inability to phrase sentences is considered a delay if not done by 2-1/2 years, inability to sit still for a short story is considered a delay if the child is 3 to 5 years old, and being unable to cut with scissors indicates a delay if not done by kindergarten age. Reciting the phone number is not appropriate for a 2-year-old.

**Global Rationale:** A developmental milestone that can indicate learning disability is a kindergarteners being unable to button his shirt. Inability to phrase sentences is considered a delay if not done by 2-1/2 years, inability to sit still for a short story is considered a delay if the child is 3 to 5 years old, and being unable to cut with scissors indicates a delay if not done by kindergarten age. Reciting the phone number is not appropriate for a 2-year-old.

**Cognitive Level:** Analyzing

**Client Need:** Health Promotion and Maintenance

**Client Need Sub:**

**Nursing/Integrated Concepts:** Nursing Process: Assessment

**Learning Outcome:** LO 28.1 Define mental health and describe major mental health alterations in childhood.

**Question 13**

**Type:** MCSA

The parents of a client recently diagnosed with Down syndrome relate to the nurse that they feel guilty about causing the condition. Which response by the nurse is the most appropriate?

1. Down syndrome is a condition caused by an extra chromosome; the cause of it is unknown.
2. Down syndrome is a condition that is genetically transmitted from both the father and the mother.
3. Down syndrome is a condition that is carried on the X chromosome, so it came from the mother.
4. Down syndrome is caused by birth trauma, not by genetics.

**Correct Answer:** 1

**Rationale 1:** The therapeutic and accurate response is that Down syndrome is a condition caused by an extra chromosome, but we don't know why it occurs. The other responses are nontherapeutic or inaccurate.

**Rationale 2:** The therapeutic and accurate response is that Down syndrome is a condition caused by an extra chromosome, but we don't know why it occurs. The other responses are nontherapeutic or inaccurate.

**Rationale 3:** The therapeutic and accurate response is that Down syndrome is a condition caused by an extra chromosome, but we don't know why it occurs. The other responses are nontherapeutic or inaccurate.

**Rationale 4:** The therapeutic and accurate response is that Down syndrome is a condition caused by an extra chromosome, but we don't know why it occurs. The other responses are nontherapeutic or inaccurate.

**Global Rationale:** The therapeutic and accurate response is that Down syndrome is a condition caused by an extra chromosome, but we don't know why it occurs. The other responses are nontherapeutic or inaccurate.

**Cognitive Level:** Applying

**Client Need:** Psychosocial Integrity

**Client Need Sub:**

**Nursing/Integrated Concepts:** Nursing Process: Implementation

**Learning Outcome:** LO 28.4 Describe characteristics of common cognitive alterations of childhood.

**Question 14**

**Type:** MCSA

A child with a profound intellectual disability is admitted to the hospital for an appendectomy. Which IQ does the nurse anticipate to see documented when reviewing this child's medical record?

1. Between 50 and 70
2. Below 20
3. Between 35 and 50
4. Between 20 and 35

**Correct Answer:** 2

**Rationale 1:** Profound intellectual disability is described as an intelligence quotient (IQ) below 20. Mild intellectual disability is described as an IQ between 50 and 70, moderate intellectual

disability is an IQ between 35 and 50, and severe intellectual disability is an IQ between 20 and 35.

**Rationale 2:** Profound intellectual disability is described as an intelligence quotient (IQ) below 20. Mild intellectual disability is described as an IQ between 50 and 70, moderate intellectual disability is an IQ between 35 and 50, and severe intellectual disability is an IQ between 20 and 35.

**Rationale 3:** Profound intellectual disability is described as an intelligence quotient (IQ) below 20. Mild intellectual disability is described as an IQ between 50 and 70, moderate intellectual disability is an IQ between 35 and 50, and severe intellectual disability is an IQ between 20 and 35.

**Rationale 4:** Profound intellectual disability is described as an intelligence quotient (IQ) below 20. Mild intellectual disability is described as an IQ between 50 and 70, moderate intellectual disability is an IQ between 35 and 50, and severe intellectual disability is an IQ between 20 and 35.

**Global Rationale:** Profound intellectual disability is described as an intelligence quotient (IQ) below 20. Mild intellectual disability is described as an IQ between 50 and 70, moderate intellectual disability is an IQ between 35 and 50, and severe intellectual disability is an IQ between 20 and 35.

**Cognitive Level:** Analyzing

**Client Need:** Health Promotion and Maintenance

**Client Need Sub:**

**Nursing/Integrated Concepts:** Nursing Process: Assessment

**Learning Outcome:** LO 28.5 Use evidence-based practice to plan nursing management for children with cognitive alterations.

**Question 15**

**Type:** MCSA

The family of a preschool-age client diagnosed with an intellectual disability is expressing difficulty with managing the care needs of the child. Which nursing diagnosis is most appropriate for this situation?

1. Hopelessness Related to Terminal Condition of the Child
2. Compromised Family Coping Related to the Child's Developmental Variations
3. Family Processes That are Dysfunctional Related to a Child with Intellectual Disability
4. Impaired Parenting Related to Poor Parenting Skills

**Correct Answer:** 2

**Rationale 1:** The family is compromised but not dysfunctional. Hopelessness and impaired parenting are not appropriate in the given situation.

**Rationale 2:** The family is compromised but not dysfunctional. Hopelessness and impaired parenting are not appropriate in the given situation.

**Rationale 3:** The family is compromised but not dysfunctional. Hopelessness and impaired parenting are not appropriate in the given situation.

**Rationale 4:** The family is compromised but not dysfunctional. Hopelessness and impaired parenting are not appropriate in the given situation.

**Global Rationale:** The family is compromised but not dysfunctional. Hopelessness and impaired parenting are not appropriate in the given situation.

**Cognitive Level:** Analyzing

**Client Need:** Psychosocial Integrity

**Client Need Sub:**

**Nursing/Integrated Concepts:** Nursing Process: Diagnosis

**Learning Outcome:** LO 28.3 Plan for the nursing management of children and adolescents with mental health alterations in the hospital and community settings.

**Question 16**

**Type:** MCMA

The nurse is planning care for an adolescent client with a newly diagnosed intellectual disability following a traumatic brain injury. Which expected outcomes are appropriate for this client?

**Standard Text:** Select all that apply.

1. The family understands the adolescents diagnosis.
2. The family understands the specific physical and developmental needs of the adolescent.
3. The adolescent develops self-care skills appropriate to his or her developmental level.
4. The adolescents family is able to access the necessary community and educational resources.
5. The familys ability to cope with changing needs of the adolescent.

**Correct Answer:** 1,2,3,4

**Rationale 1:** All statements are appropriate outcomes for the adolescent and the family except the statement regarding the familys ability to cope with the changing needs of the adolescent. This is an evaluation statement.

**Rationale 2:** All statements are appropriate outcomes for the adolescent and the family except the statement regarding the familys ability to cope with the changing needs of the adolescent. This is an evaluation statement.

**Rationale 3:** All statements are appropriate outcomes for the adolescent and the family except the statement regarding the familys ability to cope with the changing needs of the adolescent. This is an evaluation statement.

**Rationale 4:** All statements are appropriate outcomes for the adolescent and the family except the statement regarding the familys ability to cope with the changing needs of the adolescent. This is an evaluation statement.

**Rationale 5:** All statements are appropriate outcomes for the adolescent and the family except the statement regarding the familys ability to cope with the changing needs of the adolescent. This is an evaluation statement.

**Global Rationale:** All statements are appropriate outcomes for the adolescent and the family except the statement regarding the familys ability to cope with the changing needs of the adolescent. This is an evaluation statement.

Chapter 34: Pediatric Emergencies

### **MULTIPLE CHOICE**

1. Which nursing action would facilitate care being provided to a child in an emergency situation?

- a. Encourage the family to remain in the waiting room.
- b. Assist parents in distracting the child during a procedure.
- c. Always reassure the child and family.

- 
- d. Give explanations using professional terminology.

ANS: B

Include parents as partners in the child's treatments. Parents may need direct guidance in concrete terms to help distract the child. Allowing the parents to remain with the child may help calm the child. Telling the truth is the most important thing. False reassurance does not facilitate a trusting relationship. Professional terminology may not be understood. Speak to the child and family in language that they will understand.

2. The father of a child in the emergency department is yelling at the physician and nurses.

Which action would be *contraindicated* in this situation?

- 
- a. Provide a nondefensive response.
- 
- b. Encourage the father to talk about his feelings.
- 
- c. Speak in simple, short sentences.
- 
- d. Tell the father he must wait in the waiting room.

ANS: D

Because a parent who is upset may be aggravated by observers, he should be directed to a quiet area. When dealing with parents who are upset, it is important not to be defensive or attempt to justify anyone's actions. Encouraging the father to talk about his feelings may assist him to acknowledge his emotions and may defuse his angry reaction. People who are upset need to be spoken to with simple words (no longer than five letters) and short sentences (no more than five words).

3. Which would be an appropriate nursing intervention for a 6-month-old infant in the emergency department?

- 
- a. Distract the infant with noise or bright lights.
- 
- b. Avoid warming the infant.
- 
- c. Remove any pacifiers from the baby.
- 
- d. Encourage the parent to hold the infant.

ANS: D

Parents should be encouraged to hold the infant as much as possible while in the emergency department. Having the parent hold the infant may help to calm the child. Distraction with noise or bright lights would be most appropriate for a preschool-age child. In an emergency healthcare facility, it is important to keep infants warm. Infants use pacifiers to comfort themselves; therefore, the pacifier should not be taken away.

4. Which action should the nurse working in the emergency department initiate to decrease fear in a 2-year-old child?

- 
- a. Keep the child physically restrained during nursing care.
- 
- b. Allow the child to hold a favorite toy or blanket.
- 
- c. Direct the parents to remain outside the treatment room.
- 
- d. Let the child decide whether to sit up or lie down for procedures.

ANS: B

Allowing a child to hold a favorite toy or blanket is comforting. It may be necessary to restrain the toddler for some nursing care or procedures. Because toddlers need autonomy and do not

respond well to restrictions, the nurse should remove any restriction or restraint as soon as safety permits. Parents should remain with the child as much as possible to calm and reassure the child. The toddler should not be given the overwhelming choice of deciding which position she prefers.

5. Which nursing action would be most appropriate to assist a preschool-age child in coping with the emergency department experience?

- a. Explain the procedures and give the child some time to prepare.
- b. Remind the child that she is a big girl.
- c. Avoid the use of bandages.
- d. Use positive terms and avoid terms such as shot and cut.

ANS: D

Using positive terms and avoiding words that have frightening connotations assist the child in coping. Preschool-age children should be told about procedures immediately before they are done. Time to prepare only allows time for fantasies and increased anxiety. Children should not be shamed into cooperation. Bandages are important to preschool-aged children. Children in this age group believe that their insides can leak out and that bandages stop this from happening.

6. Which action should the nurse incorporate into a care plan for a 14-year-old child in the emergency department?

- a. Limit the number of choices to be made by the adolescent.
- b. Insist that parents remain with the adolescent.
- c. Provide clear explanations and encourage questions.
- d. Give rewards for cooperation with procedures.

ANS: C

Adolescents are capable of abstract thinking and can understand explanations. They should be offered the opportunity to ask questions and make decisions. Adolescents should have the choice of whether parents remain with them. They are very modest, and this modesty should be respected. Giving rewards such as stickers for cooperation with treatments or procedures is more appropriate for the younger child.

7. The emergency department nurse notices that the mother of a young child is making a lot of phone calls and getting advice from her friends about what she should do. This behavior is an indication of which of the following?

- a. Stress
- b. Healthy coping skills
- c. Attention-getting behaviors
- d. Low self-esteem

ANS: A

Hyperactive behavior such as making a lot of phone calls and enlisting everyone's opinions is a sign of stress. This is not a healthy coping skill and may be an attention-getting behavior or indicative of the mother having low self-esteem, but is more likely an indicator of stress.

8. A preschool child in the emergency department has a respiratory rate of 10 breaths per minute. How should the nurse interpret this finding?

- a. The child is relaxed.

- 
- b. Respiratory failure is likely.
  - c. This child is in respiratory distress.
  - d. The child's condition is improving.
- 

ANS: B

Very slow breathing in an ill child is an ominous sign, indicating respiratory failure.

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