

## PEDIATRICS QUIZ

1.

1. Acne
2. Hirsutism
3. Mood swings
4. Osteoporosis
6. Adrenal suppression

**RATIONALE:** Adverse effects of corticosteroids include acne, hirsutism, mood swings, osteoporosis, and adrenal suppression. Steroid use in children and adolescents may cause delayed growth, not growth spurts.

2. 1. Babinski's

**RATIONALE:**

The nurse should be able to elicit the Babinski's reflex because it may be present the entire first year of life.

The startle reflex actually disappears around 4 months of age; the Moro's reflex, by 3 or 4 months of age; and the dance reflex, after the third or fourth week.

3. 2. Complaints of a stiff neck

**RATIONALE:** The nurse should discuss complaints of a stiff neck because fever and a stiff neck indicate possible meningitis. Burning or pain with urination, fever that disappears for 24 hours then returns, and a history of febrile seizures should be addressed by the physician but can wait until office hours.

4. 2. "Long-term steroid therapy may interfere with a child's growth."

**RATIONALE:** Steroids suppress release of adrenocorticotrophic hormone from the pituitary gland, stopping production of endogenous hormones by the adrenal cortex. Because prolonged adrenal suppression may cause growth retardation in a child, the duration and dosage of steroid therapy must be kept to a minimum. Steroids also may cause central nervous system effects, such as euphoria, insomnia, and mood swings. Although steroids increase the appetite, this effect isn't the reason for

limiting their use in children. Steroids are present in the body, so hypersensitivity isn't a problem, and they're likely to cause euphoria, not depression.

#### 5. 1. Deliver five back blows.

**RATIONALE:** If rescue breathing is unsuccessful in a child younger than age 1, the nurse should deliver five back blows, followed by five chest thrusts, to try to expel the object from the obstructed airway. The nurse shouldn't perform chest compressions because the infant has a pulse and because chest compressions are ineffective without a patent airway for ventilation. The nurse shouldn't use abdominal thrusts for a child younger than age 1 because they can injure the abdominal organs.

#### 6. 2. Metabolic alkalosis

**RATIONALE:** In a client with bulimia nervosa, metabolic alkalosis may occur secondary to hydrogen loss caused by frequent, self-induced vomiting. Typically, the blood glucose level is within normal limits, making hypoglycemia unlikely. In bulimia nervosa, hypokalemia is more common than hyperkalemia and typically results from potassium loss related to frequent vomiting.

#### 7. 4. Maintaining a consistent, structured environment

**RATIONALE:** The nurse caring for an infant with inorganic failure to thrive should strive to maintain a consistent, structured environment because it reinforces a caring feeding environment. Encouraging the infant to hold a bottle would reinforce an uncaring feeding environment. The infant should receive social stimulation rather than be confined to bed rest. The number of caregivers should be minimized to promote consistency of care.

#### 8. 3. Rice cereal

**RATIONALE:** The nurse should instruct her to introduce rice cereal first because it's easy to digest and is associated with few allergies. Next, the infant can receive pureed fruits, such as bananas, applesauce, and pears, followed by pureed vegetables, egg yolks, cheese, yogurt and, finally, meat. Egg whites shouldn't be given until age 9 months because they may trigger a food allergy.

9. 1. The parent verbalizes the need to stay away from persons with known infections.

RATIONALE: Preventing infections through proper hand washing and staying away from persons with known infections is an important measure in preventing sickle cell crises. Dietary restrictions aren't significant in preventing these crises. The client should maintain adequate hydration, not restrict fluid intake, and should avoid strenuous activity such as aerobics.

10. 1. "I'll give the antibiotics for the full 10-day course of treatment."

RATIONALE: The mother demonstrates understanding of antibiotic therapy by stating she'll give the full 10-day course of treatment. Antibiotics must be given for the full course of therapy, even if the child feels well. Otherwise, the infection won't be eradicated. Antibiotics should be taken at ordered intervals to maintain blood levels and not as needed for pain. A reexamination at the end of the course of antibiotics is necessary to confirm that the infection is resolved.

11. 4. Increased interest in play

RATIONALE: A behavioral change is one of the most valuable clues to pain. A child who's pain-free likes to play. In contrast, a child in pain is less likely to play or to consume food or fluids. An increased heart rate may indicate increased pain. Decreased urine output may signify dehydration.

12. 1. 50 mg

RATIONALE: The dose is 5 mg/kg and the child weighs 10 kg. To determine the dose, the nurse would calculate:  $5 \text{ mg}/1 \text{ kg} \times 10 \text{ kg} = 50 \text{ mg}$  per dose.

13. 1. Caring for the same child from admission to discharge

RATIONALE: Primary care nursing requires that the primary nurse care for the same child (to whom she's assigned) during her scheduled shift. The associate nurse is assigned to the child care assignment when the primary nurse has a day off or during the evening and night shifts. Caring for different children each shift doesn't promote continuity of care. Taking vital signs for every child on the floor is an example of team nursing, in which each member of the team is assigned one

specific task for each child. The charge nurse may be directly involved in child care.

#### 14. 1. Knee-to-chest

RATIONALE: TOF involves four defects: pulmonary stenosis, right ventricular hypertrophy, ventricular-septal defect (VSD), and dextroposition of the aorta with overriding of the VSD. Pulmonary stenosis decreases pulmonary blood flow and right-to-left shunting via the VSD, causing desaturated blood to circulate. The nurse should place the child in the knee-to-chest position because this position reduces venous return from the legs and increases systemic vascular resistance, maximizing pulmonary blood flow and improving oxygenation status. Fowler's, Trendelenburg's, and the prone positions don't improve oxygenation.

#### 15. 3. Kidneys

RATIONALE: The kidneys are most responsible for drug excretion in children. Less commonly, some drugs may be excreted via the lungs or liver. Drugs are never excreted by the heart in children or adults.

#### 16. 2 teaspoons

RATIONALE: To perform this dosage calculation, the nurse should first convert the child's weight from pounds to kilograms:

$$44 \text{ lb} \div 2.2 \text{ lb/kg} = 20 \text{ kg}$$

Then she should calculate the total daily dose for the child:

$$20 \text{ kg} \times 0.2 \text{ mg/kg/day} = 4 \text{ mg}$$

Next, the nurse should calculate the amount to be given at each dose:

$$4 \text{ mg} \div 4 \text{ doses} = 1 \text{ mg/dose}$$

The available elixir contains 0.5 mg of drug per 5 ml (which is equal to 1 teaspoon).

Therefore, to give 1 mg of the drug, the nurse should administer 2 teaspoons (10 ml) to the child for each dose.

#### 17. 2. monitoring the blood glucose level closely.

RATIONALE: Most TPN solutions contain a high glucose content, placing the client at risk for hyperglycemia. Therefore, the most important nursing action is to monitor the child's blood glucose level closely. A child receiving TPN isn't likely to

require vital sign assessment every 30 minutes or elevation of the head of the bed. A daily bath isn't a priority.

18. 3. Elevate the affected arm and apply ice to the injury site.

RATIONALE: Severe joint pain in a child with hemophilia indicates bleeding; therefore, the nurse should first elevate the affected extremity and apply ice to the injury site to promote vasoconstriction. ROM exercises may worsen discomfort and bleeding. Massage and warm compresses also may increase bleeding. The nurse should notify the physician only after taking measures to stop the bleeding.

19. 4. Iron-rich formula alone

RATIONALE: The American Academy of Pediatrics recommends iron-rich formula for 5-month-old infants and cautions against giving infants solid food — even baby food — until age 6 months. The Academy doesn't recommend whole milk before age 12 months or skim milk before age 2 years.

20. 2. Elevating the neonate's head and giving nothing by mouth

RATIONALE: Because of the risk of aspiration, a neonate with a known or suspected tracheoesophageal fistula should be kept with the head elevated at all times and should receive nothing by mouth (NPO). The nurse should suction the neonate regularly to maintain a patent airway and prevent pooling of secretions. Elevating the neonate's head after feedings or giving glucose water are inappropriate because the neonate must remain on NPO status.

21. 3. Industry versus inferiority

RATIONALE: In middle childhood, the 6- to 12-year-old child is mastering the task of industry versus inferiority. The trust versus mistrust task is in infancy (birth to 1 year). In early childhood, the 1- to 3-year-old child is in the stage of initiative versus guilt. Identity versus role confusion occurs during adolescence.

22. 1. may not disclose information regarding the child's condition.

RATIONALE: According to Health Insurance Portability and Accountability Act standards, a nurse can't provide information regarding a child's care unless the

child's parent or guardian authorizes her to do so. It wouldn't be appropriate for the nurse to contact an attorney at this time. Although not legally wrong, it wouldn't be appropriate for the nurse to make a statement about her feelings about the situation.

23. 4. ask open-ended questions about the parents' concerns.

**RATIONALE:** Asking open-ended questions about the parents' concerns will help the nurse understand why they're asking for information. Advance directives are rarely prepared for healthy infants. The parents' request for information may indicate distress, and the nurse should obtain more details before giving them information. Although suggesting the parents talk to their attorney or to the physician and providing the parents with a brochure about advance directives are appropriate actions, the nurse must obtain additional information before implementing these choices.

24. 4. "We try to be united and consistent in our approach to discipline."

**RATIONALE:** To deal with misbehavior most successfully, parents should be firm and consistent when taking appropriate disciplinary action. Usually, parents should begin setting limits and implementing discipline, such as using time-outs for inappropriate behavior, around age 1, or when the child begins to crawl and explore the environment. Rigidly enforcing rules wouldn't allow the development of autonomy and could lead to self-doubt. The parent should never be encouraged to withdraw attention or affection as a result of the child's behavior, or any other reason.

25. 2. Ortolani's sign.

**RATIONALE:** In a child with a congenital hip dislocation, assessment typically reveals Ortolani's sign, asymmetrical thigh and gluteal folds, limited hip abduction, femoral shortening, and Trendelenburg's sign.

26.

4. Select appropriate injection site with the child.
3. Clean site with an alcohol pad; loosen needle cover.
1. Pinch the skin around the injection site

6. Uncover needle; insert at 45- to 90- degree angle.
2. Release the skin and give the injection.
5. Cover the site with an alcohol pad.

**RATIONALE:** To give a subcutaneous injection of insulin to a child, the nurse should first select an appropriate injection site, being sure to discuss the selection with the child to ensure that injection sites are rotated. She should then clean the injection site with an alcohol pad and loosen the needle cover. The next step is to pinch the skin around the site. She should then uncover the needle and insert the needle at a 45- to 90-degree angle, release the skin, and give the injection. When finished, the nurse should cover the injection site with an alcohol pad and avoid rubbing the site.

27. 4. "The special medicine will feel warm when it's put in the tubing."

**RATIONALE:** To prepare a 4-year-old child without increasing anxiety, the nurse should provide concrete information in small amounts about nonthreatening aspects of the procedure. Therefore, saying the special medicine will feel warm is most appropriate. Saying that it won't hurt may prevent the child from trusting the nurse in the future. Explaining the time needed for the procedure wouldn't provide sufficient information. Stating that the child will need to sleep isn't true and could provoke anxiety.

28. 2. 1 to 3 years old (a toddler).

**RATIONALE:** Toddlers show fear of separation from their parents, the dark, loud or sudden noises, injury, strangers, certain persons, certain situations, animals, large objects or machines, and change in environment. Infants show fear of strangers, the sudden appearance of unexpected and looming objects (including people), animals, and heights. School-age children show fear of supernatural beings, injury, storms, the dark, staying alone, separation from parents, things seen on television and in the movies, injury, tests and failure in school, consequences related to unattractive physical appearance, and death. Adolescents show fear of inept social performance, social isolation, sexuality, drugs, war, divorce, crowds, gossip, public speaking, plane and car crashes, and death.

### 29. 3. Tetracycline

**RATIONALE:** Tetracycline should be avoided in children younger than age 8 because it may cause enamel hypoplasia and permanent yellowish gray to brownish tooth discoloration. Penicillin, erythromycin, and amoxicillin don't discolor the teeth.

### 30. 2. An 11-month-old infant receiving chemotherapy through a central venous catheter

**RATIONALE:** The nurse should assess the 11-month-old infant with a central venous catheter first. This child takes priority because he has an invasive line and is receiving chemotherapy, which may cause toxic effects. Next, the nurse should assess the 5-month-old infant with an I.V. infusion and then the 14-year-old postoperative child. Because he's the most stable, the nurse can assess the 8-year-old child in traction last.

### 31. 4. "It must be difficult for you when your child is ill and hospitalized."

**RATIONALE:** Expressing concern is the most appropriate response because it acknowledges the parents' feelings. False reassurance, such as telling parents not to worry, isn't helpful because it doesn't acknowledge their feelings. Encouraging parents to look at how ill other children are also isn't helpful because the focus of the parents is on their own child. Asking what the concern is merely reinforces the parents' concern without addressing it.

32.

1. Minor symptoms can be treated with acetaminophen (Tylenol).
3. Call the office if the toddler develops a temperature above 103° F (39.4° C), seizures, or difficulty breathing.
4. Soreness at the immunization site and mild fever are common.

**RATIONALE:** The nurse should tell the parents that minor symptoms, such as soreness at the immunization site and mild fever, can be treated with acetaminophen or ibuprofen. Aspirin should be avoided in children because of its association with Reye's syndrome. The parents should notify the clinic if serious complications (such as a temperature above 103° F, seizures, or difficulty



breathing) occur. Minor discomforts, such as soreness and mild fever, are common after immunizations. Immunizing the child decreases the health risks associated with contracting certain diseases; it doesn't prevent the toddler from acquiring them. Although the child may prefer to rest after immunizations, it isn't necessary to restrict his activity.

33. 1. to talk with her daughter about what she should do if a stranger talks to her.

RATIONALE: Preschoolers can begin to take a role in their own safety. They must be taught what a stranger is and what to do if a stranger approaches them. Living in a safe town doesn't eliminate the need to warn a child about talking to strangers. Although it's appropriate for the mother to talk with her daughter about strangers and have the daughter tell her if a stranger approaches her, the child needs to be aware of what to do at the time that the situation occurs, not only afterward. Contacting social services isn't appropriate because the nurse is capable of answering the mother's questions.

34. 3. Administer oxygen at a rate of 4 L/minute using a nonhumidified nasal cannula.

RATIONALE: Oxygen should be humidified to assure that irritation of the mucosa doesn't occur. This adolescent's platelet level is decreased, so she's at risk for bleeding. The nose is a vascular region that can bleed easily if the mucosa is dried by the oxygen. Therefore, the nurse should revise the care plan to reflect use of humidified oxygen. A sign to remind others to avoid needle sticks and to not give anything via the rectum, the presence of two peripheral I.V.s, and the use of a tympanic temperature device are all aspects of care that would decrease the adolescent's risk of bleeding.

35. 1. Immunoglobulin E

RATIONALE: The nurse would expect elevated immunoglobulin (Ig) E levels because IgE is predominantly found in saliva and tears as well as intestinal and bronchial secretions and, therefore, may be found in allergic disorders. IgD's physiologic function is unknown and constitutes only 1% of the total number of circulating immunoglobulins. IgG is elevated in the presence of viral and bacterial

infections. IgM is the first antibody activated after an antigen enters the body, and is especially effective against gram-negative organisms.

### 36. 1. Appendicitis

**RATIONALE:** Right lower quadrant pain, rebound tenderness, nausea, vomiting, a positive psoas sign, and a low-grade fever are findings consistent with acute appendicitis. Pancreatitis, cholecystitis, and constipation may mimic appendicitis; however, the pain of pancreatitis is usually localized in the left upper quadrant. Cholecystitis is associated with right upper quadrant pain. Constipation wouldn't cause a fever.

37. 3. Coordinate the multidisciplinary services and providing information about them.

**RATIONALE:** Coordinating the multidisciplinary services and providing information about them demonstrate collaboration because the nurse will be explaining the functions of social service, case management, and so forth. Providing parents with information about financial assistance programs is the responsibility of social services, not a nursing role. Informing the family of the diagnosis and recently discovered findings is a physician's responsibility as is referring and consulting with other specialties.

38. 3. 1.08 ml

**RATIONALE:** Because the infant weighs 17 lb (7.7 kg), the safe dosage range is 385 to 578 mg daily. The ordered dosage, 540 mg daily, is safe. To calculate the amount to administer, the nurse may use the following fraction method:

$$500 \text{ mg} / 2 \text{ ml} = 270 \text{ mg} / X \text{ ml}$$

$$500X = 270 \times 2$$

$$500X = 540$$

$$X = 540 / 500$$

$$X = 1.08 \text{ ml}$$

39. 3. "My child's abdomen seems bigger, and his diapers are much tighter."

**RATIONALE:** The most common presenting sign of a Wilms' tumor is abdominal swelling or an abdominal mass. Therefore, the mother's observation that her

child's abdomen seems bigger suggests a Wilms' tumor. A rapid increase in length (height) isn't associated with this type of tumor. Although lethargy may accompany a Wilms' tumor, abdominal swelling is a more specific sign. Children with a Wilms' tumor usually have a decreased, not increased, appetite.

#### 40. 2. Somatrem (Protropin)

**RATIONALE:** Somatrem is used to treat linear growth failure stemming from hormonal deficiency. Corticotropin zinc hydroxide is used to treat adrenal insufficiency and a variety of other conditions; desmopressin acetate and vasopressin are used to treat diabetes insipidus.

#### 41. 3. Respiratory acidosis

**RATIONALE:** A pH less than 7.35 and a PaCO<sub>2</sub> greater than 45 mm Hg indicate respiratory acidosis. Status asthmaticus is a medical emergency that's characterized by respiratory distress. Persistent hypoventilation leads to the accumulation of carbon dioxide, resulting in respiratory acidosis.

#### 42. 2. Make sure all medications are kept in containers with childproof safety caps.

**RATIONALE:** Making sure all medications are kept in containers with childproof safety caps is the most appropriate guideline because poisoning accidents are common in toddlers owing to the toddler's curiosity and his increasing mobility and ability to climb. When riding in a car, a toddler should be strapped into a car seat, not a seat belt. A seat belt is an appropriate guideline for a school-age child. Never leaving a child alone on a bed is an appropriate guideline for parents of infants. Toddlers already have the ability to climb on and off of beds and other furniture by themselves. Note, however, that toddlers should never be left unattended on high surfaces, such as an examining table in a physician's office. Teaching the rules of the road for bicycle safety is an appropriate safety measure for a school-age child. Toddlers shouldn't be allowed in the road unsupervised.

#### 43. 1. Cleaning the suture line carefully with a sterile solution after every feeding

**RATIONALE:** To avoid an infection that could adversely affect the cosmetic outcome of the repair, the suture line must be cleaned very gently with a sterile solution after each feeding. Laying an infant on his abdomen after a cleft lip repair

isn't appropriate because doing so will put pressure on the suture line, causing damage. The infant can be positioned on his side to drain saliva without affecting the suture line. Crying puts tension on the suture line and should be avoided by anticipating the baby's needs, such as holding and cuddling him. Hard objects such as pacifiers should be kept away from the suture line because they can cause damage.

44. 1. Tragus, mastoid process, and helix

**RATIONALE:** Before inserting the otoscope, the nurse should palpate the child's external ear, especially the tragus and mastoid process, and should pull the helix backward to determine the presence of pain or tenderness. The umbo, incus, and malleus (parts of the middle ear) and the cochlea (part of the inner ear) aren't palpable.

45. 4. behavioral patterns are passed from one generation to the next.

**RATIONALE:** The nurse should keep in mind that a family's behavioral patterns and values are passed from one generation to the next. Cultural background commonly plays a major role in determining a family's health practices. Physical characteristics don't indicate a child's culture. Although heritage plays a role in culture, it doesn't dictate a group's shared values, and its effect on culture is weaker than that of behavioral patterns.

46.

2. A 6-month-old infant can usually roll from prone to supine and supine to prone positions.

3. A teething ring is appropriate for a 6-month-old infant.

6. Lack of visual coordination usually resolves by age 6 months.

**RATIONALE:** Gross motor skills of the 6-month-old infant include rolling from front to back and back to front. Teething usually begins around age 6 months; therefore, a teething ring is appropriate. Visual coordination is usually resolved by age 6 months. At age 6 months, fine motor skills include purposeful grasps. Stranger anxiety normally peaks at 8 months of age. The 6-month-old infant also should have good head control and no longer display head lag when pulled up to a sitting position.

47. 4. Held in the bottle-feeding position

RATIONALE: The nurse should hold an infant in the bottle-feeding position when administering an oral medication by placing the child's inner arm behind the back, supporting the head in the crook of the elbow, and holding the child's free hand with the hand of the supporting arm. A 4-month-old infant can't sit unsupported in a high chair. Administering medication to an infant lying flat could cause choking and aspiration. Holding the infant in the lap may cause the medication to spill.

48. 3. provide oral and I.V. fluids.

RATIONALE: Initial nursing interventions for the child in a sickle cell crisis include providing hydration and oxygenation to prevent more sickling. Pain relief is also a concern. However, painful joints are treated with analgesics and warm packs because cold packs may increase sickling. Antibiotics will be given to treat a sickle cell crisis if it's thought to be bacterial but only after hydration and oxygenation have been addressed. Daily supplements of folic acid will help counteract anemia but they aren't a priority during sickle cell crisis.

49. 0.2 milliliters

RATIONALE: The nurse should calculate the volume to be given using this

equation:  $2 \text{ mg}/X \text{ ml} = 10 \text{ mg}/1 \text{ ml}$

$10X = 2$

$X = 0.2 \text{ ml}$

50. 3. Having the child take a deep breath and blow it out until told to stop

RATIONALE: Having the child take a deep breath and blow it out is a form of distraction and will help the child cope better with the procedure. A child may prefer to keep his eyes open, not shut, during a procedure so he can see what is going on and can anticipate what is going to happen. Letting a child yell during a procedure is a form of helpful distraction. In addition, holding the breath isn't beneficial and could have adverse effects (such as feeling dizzy or faint). The nurse should prepare a child for a procedure by using nonpain descriptors and not suggesting pain. For example, the nurse might say, "Sometimes this feels like pushing or sticking, and sometimes it doesn't bother children at all."