

## **Lilley: Pharmacology and the Nursing Process, 6th Edition**

### **Test Bank**

### **Chapter 03: Life Span Considerations**

#### **MULTIPLE CHOICE**

1. Drug transfer to the fetus is more likely during the last trimester of pregnancy for which reason?
  - A. Decreased fetal surface area
  - B. Increased placental surface area
  - C. Enhanced placental blood flow
  - D. Increased amount of protein-bound drug in maternal circulation

ANS: C

Drug transfer to the fetus is more likely during the last trimester as a result of enhanced placental blood flow. The other options are not correct. Increased fetal surface area, not decreased, is a factor that affects drug transfer to the fetus. The placenta's surface area does not increase during this time. Drug transfer is increased because of an increased amount of free drug, not protein-bound drug, in the mother's circulation.

DIF: COGNITIVE LEVEL: Understanding (Comprehension) REF: Page 37

TOP: NURSING PROCESS: General

MSC: NCLEX: Health Promotion and Maintenance

2. The nurse is monitoring a 22-year-old patient who is in the 26th week of pregnancy and has developed gestational diabetes and pneumonia. She is given medications that pose a possible fetal risk, but the potential benefits may warrant the use of the medications in her situation. The nurse recognizes that these medications are in which U.S. Food and Drug Administration (FDA) pregnancy safety category?
  - A. Category B
  - B. Category C
  - C. Category D
  - D. Category X

ANS: C

Pregnancy category D fits the description given. Category B indicates no risk to animal fetus; information for humans is not available. Category C indicates adverse effects reported in animal fetus; information for humans is not available. Category X consists of drugs that should not be used in pregnant women because of reports of fetal abnormalities and positive evidence of fetal risk in humans.

DIF: COGNITIVE LEVEL: Applying (Application)

REF: Page 37

TOP: NURSING PROCESS: Assessment

MSC: NCLEX: Safe and Effective Care Environment: Safety and Infection Control

3. When discussing dosage calculation for pediatric patients with a clinical pharmacist, the nurse notes that which type of dosage calculation is used most commonly in pediatric calculations?
- A. West nomogram
  - B. Clark rule
  - C. Height-to-weight ratio
  - D. Mg/kg formula

ANS: D

The mg/kg formula is the most common method of calculating doses for pediatric patients. The other options are available methods but are not the most commonly used. Height-to-weight ratio is not used.

DIF: COGNITIVE LEVEL: Remembering (Knowledge) REF: Page 39

TOP: NURSING PROCESS: Implementation

MSC: NCLEX: Health Promotion and Maintenance

4. The nurse is assessing a newly admitted 83-year-old patient and determines that the patient is experiencing polypharmacy. Which statement most accurately illustrates polypharmacy?
- A. The patient has lower risk for drug interactions.
  - B. The patient takes one medication for an illness several times a day.
  - C. The patient risks problems only if over-the-counter medications are also taken.
  - D. The patient takes multiple medications for several different illnesses.

ANS: D

Polypharmacy usually occurs when a patient has several illnesses and takes medications for each of them, possibly prescribed by different specialists who may be unaware of other treatments the patient is undergoing. The other options are not correct.

Polypharmacy would cause a higher risk for drug interactions. Polypharmacy means the patient is taking several different medications, not just one. Polypharmacy can include prescription drugs, over-the-counter medications, and herbal products.

DIF: COGNITIVE LEVEL: Understanding (Comprehension) REF: Page 41

TOP: NURSING PROCESS: Assessment

MSC: NCLEX: Physiological Integrity: Pharmacological Therapies

5. The nurse is aware that confusion, forgetfulness, and increased risk for falls are common responses of an elderly patient who is taking which type of drug?
- A. Laxatives
  - B. Anticoagulants
  - C. Sedatives
  - D. Diuretics

ANS: C

Sedatives and hypnotics often cause confusion, daytime sedation, ataxia, lethargy, forgetfulness, and increased risk for falls in the elderly. Laxatives, anticoagulants, and diuretics may cause adverse effects in the elderly, but not the ones specified in the question.

DIF: COGNITIVE LEVEL: Remembering (Knowledge)

REF: Page 43

TOP: NURSING PROCESS: Implementation

MSC: NCLEX: Health Promotion and Maintenance

6. For accurate medication administration to pediatric patients, the nurse must take into account which criteria?
- A. Weight and organ maturity
  - B. Renal output and weight
  - C. Weight, body temperature, and age
  - D. Height and age

ANS: A

To administer medications to pediatric patients accurately, one must take into account the body surface area (including weight and height), age, and organ maturity. The other options are not correct; renal output and body temperature are not considerations, and height and age alone are not sufficient.

DIF: COGNITIVE LEVEL: Understanding (Comprehension)

REF: Page 38

TOP: NURSING PROCESS: Implementation

MSC: NCLEX: Health Promotion and Maintenance

7. It is not uncommon for an elderly patient to experience a reduction in the stomach's ability to produce hydrochloric acid. This change may result in which effect?
- A. Delayed gastric emptying
  - B. An increase in gastric acidity
  - C. Decreased intestinal absorption of medications
  - D. Altered absorption of weakly acidic drugs such as aspirin

ANS: D

Reduction in the stomach's ability to produce hydrochloric acid is an aging-related change that results in a decrease in gastric acidity and may alter the absorption of weakly acidic drugs, such as aspirin. The other options are not results of reduced hydrochloric acid production.

DIF: COGNITIVE LEVEL: Applying (Application)

REF: Page 42

TOP: NURSING PROCESS: Assessment

MSC: NCLEX: Health Promotion and Maintenance

8. The nurse is administering drugs to neonates and should consider which factor that may contribute to drug toxicity?
- A. The lungs are immature.

- B. The kidneys are small.
- C. The liver is not fully developed.
- D. Excretion of the drug occurs quickly.

ANS: C

A neonate's liver is not fully developed and cannot detoxify many drugs. The other options are not correct. The lungs and kidneys do not play major roles in drug metabolism. Renal excretion of the drug is slow, not fast, because of organ immaturity.

DIF: COGNITIVE LEVEL: Understanding (Comprehension) REF: Page 38

TOP: NURSING PROCESS: Planning

MSC: NCLEX: Health Promotion and Maintenance

9. An 83-year-old woman has been given a thiazide diuretic to treat mild heart failure. She and her daughter should be told to watch for which problems?
- A. Constipation and anorexia
  - B. Fatigue and dehydration
  - C. Daytime sedation and lethargy
  - D. Edema, nausea, and blurred vision

ANS: B

Electrolyte imbalance, fatigue, and dehydration are common complications when thiazide diuretics are given to elderly patients. The other options do not describe complications that occur when these drugs are given to the elderly.

DIF: COGNITIVE LEVEL: Understanding (Comprehension) REF: Page 43

TOP: NURSING PROCESS: Planning

MSC: NCLEX: Physiological Integrity: Pharmacological Therapies

10. An elderly patient with a new diagnosis of hypertension will be receiving a new prescription for an antihypertensive drug. The nurse expects which type of dosing to occur with this drug therapy?
- A. Drug therapy will be based on the patient's weight.
  - B. Drug therapy will be based on the patient's age.
  - C. The patient will receive the maximum dose that is expected to reduce the blood pressure.
  - D. The patient will receive the lowest possible dose at first, and then the dose will be adjusted as needed.

ANS: D

As a general rule, dosing for the elderly should follow the admonition, "Start low and go slow," which means to start with the lowest possible dose (often less than an average adult dose) and increase the dose slowly, based on patient response.

DIF: COGNITIVE LEVEL: Understanding (Comprehension) REF: Page 41

TOP: NURSING PROCESS: Planning

MSC: NCLEX: Physiological Integrity: Pharmacological Therapies

11. The nurse is trying to give a liquid medication to a 2  $\frac{1}{2}$ -year-old child and notes that the medication has a strong taste. Which technique is the best way for the nurse to give the medication to this child?
- A. Give the medication with spoonfuls of sherbet.
  - B. Add the medication to the child's bottle.
  - C. Tell the child you have candy for him.
  - D. Add the medication to a cup of milk.

ANS: A

Sherbet or another nonessential food disguises the taste of the medication. The other options are not correct. If the child does not drink the entire contents of the bottle, medication is wasted and the full dose is not administered. Using the word *candy* with drugs may lead to the child thinking that drugs are actually candy. If medication is mixed with a cup of milk, the child may not drink the entire cup of milk, and the distasteful drug may cause the child to refuse milk in the future.

DIF: COGNITIVE LEVEL: Applying (Application)

REF: Page 46

TOP: NURSING PROCESS: Implementation

MSC: NCLEX: Physiological Integrity: Pharmacological Therapies

### MULTIPLE RESPONSE

1. Which statements are true regarding pediatric patients and pharmacokinetics? *Select all that apply.*
- A. The levels of microsomal enzymes are decreased.
  - B. Perfusion to the kidneys may be decreased and may result in reduced renal function
  - C. First-pass elimination is increased because of higher portal circulation.
  - D. First-pass elimination is reduced because of the immaturity of the liver.
  - E. Total body water content is much less than in adults.
  - F. Gastric emptying is slowed because of slow or irregular peristalsis.
  - G. Gastric emptying is more rapid because of increased peristaltic activity.

ANS: A, B, D, F

In children, first-pass elimination by the liver is reduced because of the immaturity of the liver, and microsomal enzymes are decreased. In addition, gastric emptying is reduced because of slow or irregular peristalsis. Perfusion to the kidneys may be decreased, resulting in reduced renal function. The other options are not correct. In addition, remember that total body water content is greater in children than in adults.

DIF: COGNITIVE LEVEL: Applying (Application)

REF: Page 38

TOP: NURSING PROCESS: Assessment

MSC: NCLEX: Health Promotion and Maintenance

2. Which statements are true regarding the elderly and pharmacokinetics? *Select all that apply.*
- A. The levels of microsomal enzymes are decreased.
  - B. Fat content is increased because of decreased lean body mass.

- C. Fat content is decreased because of increased lean body mass.
- D. The number of intact nephrons is increased.
- E. The number of intact nephrons is decreased.
- F. Gastric pH is less acidic.
- G. Gastric pH is more acidic.

ANS: A, B, E, F

In the elderly, levels of microsomal enzymes are decreased because the aging liver is less able to produce them; fat content is increased because of decreased lean body mass; the number of intact nephrons is decreased as the result of aging; and gastric pH is less acidic because of a gradual reduction of the production of hydrochloric acid. The other options are incorrect statements.

DIF: COGNITIVE LEVEL: Applying (Application)

REF: Page 42

TOP: NURSING PROCESS: Assessment

MSC: NCLEX: Health Promotion and Maintenance

## OTHER

1. A newborn infant needs a dose of acetaminophen. The order reads, "Give acetaminophen, infant oral solution, 10 mg/kg/dose, every 4 hours as needed." The infant weighs 7.8 pounds. How many milligrams will this infant receive per dose? *Round to the nearest tenth.*

ANS:

35 mg

Convert pounds to kilograms: 7.8 pounds = 3.5 kg (rounded to the nearest tenth)

$3.5 \text{ kg} \times 10 \text{ mg/kg/dose} = 35 \text{ mg/dose}$

DIF: COGNITIVE LEVEL: Applying (Application)

REF: Page 39

TOP: NURSING PROCESS: Implementation

MSC: NCLEX: Physiological Integrity: Pharmacological and Parenteral Therapies