

- 1. What factor affects a drug's ability to cross the blood-brain barrier?
  - a. Molecular weight
  - b. Protein binding
  - c. Renal dysfunction
  - d. Age
- 2. Which patient factor influences immunocompetence?
  - a. Healthy diet
  - b. Advanced age
  - c. Physical exercise
  - d. Allergies
- 3. What is a risk factor for multidrug-resistant organisms?
  - a. Recent hospitalization exceeding 5 days
  - b. Lack of immunosuppressive diseases
  - c. No prior antimicrobial therapy
  - d. Low frequency of resistance in the community
- 4. What does concentration-dependent killing refer to in rational dosing?
  - a. Time of administration
  - b. Drug's molecular weight
  - c. Drug concentration in tissues
  - d. Immunocompetence



- 5. What is the postantibiotic effect related to in rational dosing?
  - a. Persistent suppression of microbial growth
  - b. Drug metabolism
  - c. Patient's age
  - d. Cost of therapy
- 6. What is the characteristic of narrow-spectrum antibiotics?
  - a. Effective against many types of bacteria
  - b. Target specific microorganisms
  - c. Modified to be effective against gram-negative bacteria
  - d. Act on both gram-positive and gram-negative bacteria
- 7. What is the advantage of drug combinations in antimicrobial therapy?
  - a. Interference in the mode of action
  - b. Synergism, making the combination more effective
  - c. Selection pressure for resistance
  - d. Narrowing the spectrum of activity
- 8. What is the primary purpose of prophylactic use of antibiotics?
  - a. Treatment of existing infections
  - b. Prevention of infections
  - c. Enhancing drug synergism
  - d. Inducing superinfections





- 9. Which complication of antibiotic therapy ranges from mild skin rash to life-threatening anaphylaxis?
  - a. Direct toxicity
  - b. Hypersensitivity
  - c. Superinfections
  - d. Urticaria
- 10. Which type of antibiotics mainly causes superinfections with opportunistic organisms?
  - a. Narrow-spectrum antibiotics
  - b. Broad-spectrum antibiotics
  - c. Extended-spectrum antibiotics
  - d. Lipid-soluble antibiotics





## Answers

- 1. a. Molecular weight
- 2. b. Advanced age
- 3. a. Recent hospitalization exceeding 5 days
- 4. c. Drug concentration in tissues
- 5. a. Persistent suppression of microbial growth
- 6. b. Target specific microorganisms
- 7. b. Synergism, making the combination more effective
- 8. b. Prevention of infections
- 9. b. Hypersensitivity
- 10. b. Broad-spectrum antibiotics