

## Chapter 69, Self-Assessment Questions

1. Findings consistent with an infection include:
  - A. Fever
  - B. Elevated WBC count
  - C. Elevated procalcitonin
  - D. Left shift
  - E. All of the above
  
2. \_\_\_\_\_ refers to development of resistance occurring in a patient's nontargeted flora that can cause secondary infections.
  - A. Collateral damage
  - B. Nonadherence
  - C. De-escalation
  - D. Pharmacodynamics
  - E. Source control
  
3. Which one of the following is *true* regarding the initial empiric selection of antimicrobial agents?
  - A. Empirical selection of antimicrobial therapy should be related to severity of illness.
  - B. Given several antimicrobial choices, the antimicrobial most associated with collateral damage is preferred.
  - C. In most cases, double coverage is synergistic, prevents the emergence of resistance, improves outcomes, and is superior to monotherapy.
  - D. Antimicrobial cost should be the primary factor when deciding on empiric therapy
  - E. Consideration of previous antimicrobial exposure is not necessary when choosing empiric therapy.
  
4. All but which one of the following factors is important to consider when selecting an antibiotic dosing regimen?
  - A. Source-specific location of infection
  - B. Minimum inhibitory concentration (MIC) of the likely pathogens
  - C. Route of administration
  - D. Antimicrobial agent cost
  - E. Metabolism and elimination of the antimicrobial
  
5. Causes of antimicrobial failure include:
  - A. Inadequate diagnosis
  - B. Development of a new infection with a resistant organism
  - C. Poor source control
  - D. Nonadherence
  - E. All of the above
  
6. Which statement regarding a Gram stain is not correct?

- A. Performed to identify if bacteria are present
  - B. If bacteria are present, they will be stained by Gram stain
  - C. Gram stain can determine morphological characteristics of bacteria
  - D. Presence of WBCs indicates inflammation
  - E. Gram stain can evaluate if a specimen is poorly collected or contaminated
7. \_\_\_\_\_ describes the relationship between drug exposure and pharmacologic effect of antibacterial activity or human toxicology.
- A. Pharmacokinetics
  - B. Concentration-dependent activity
  - C. Pharmacodynamics
  - D. Minimum inhibitory concentration (MIC)
  - E. Drug distribution
8. Which of the following statements is *true* regarding normal flora?
- A. An endogenous infection arises from one's own normal flora.
  - B. Normally sterile sites include the cerebrospinal fluid, blood, and urine.
  - C. The large intestine contains more anaerobes than aerobes.
  - D. Normal flora of the skin includes streptococcal species.
  - E. All of the above
9. Which of the following statements regarding a patient history is *false*?
- A. Previous antimicrobial use may predispose a patient to resistant pathogens.
  - B. The history should focus on making the diagnosis.
  - C. Recent health care utilization is a determinant in selecting antimicrobial therapy.
  - D. dConcomitant medications may interact with the selected antimicrobial agent.
  - E. All of the above are true.
10. Virulence refers to:
- A. Bacteria that cause disease as well as colonizing flora.
  - B. The presence of bacteria that are not causing disease.
  - C. The presence of bacteria that are causing disease.
  - D. The pathogenicity or disease severity produced by an organism.
  - E. Antimicrobial therapy targeting bacterial colonization may lead to the emergence of resistant bacteria.
11. A left shift refers to:
- A. An increase in immature neutrophils or bands.
  - B. Leukopenia that may occur secondary to certain medications.
  - C. An elevated WBC count.
  - D. An elevated CRP.
  - E. The WBC count and differential.
12. Which of the following factors may influence selection of the antimicrobial agent, dose, and monitoring?
- A. Concomitant medications

- B. Renal/hepatic function
  - C. Pregnancy
  - D. Drug allergies
  - E. All of the above
13. Which statement regarding the minimum inhibitory concentration (MIC) is *true*?
- A. MIC is the highest concentration of antimicrobial that inhibits visible bacterial growth.
  - B. It accurately predicts the in vivo outcome.
  - C. MIC, along with the breakpoint, determines whether the organism is susceptible, intermediate, or resistant to a specific antimicrobial agent.
  - D. Breakpoint is the concentration of the antimicrobial that can be achieved in the urine after a standard dose of that agent.
  - E. If the MIC is below the breakpoint, the organism is considered resistant to that agent.
14. Host factors that should be considered when selecting an antimicrobial regimen include:
- A. Concomitant medications
  - B. Drug allergies
  - C. Age
  - D. Anatomical location of infection
  - E. All of the above
15. Which one of the following monitoring parameters is *not* routinely performed?
- A. Temperature
  - B. Reculture of specimens
  - C. Renal function
  - D. WBC count with differential
  - E. Follow-up on culture and susceptibility reports

## Answers

1. E
2. A
3. A
4. D
5. E
6. B
7. C
8. E
9. E
10. D
11. A
12. E
13. C
14. E
15. B