

## Chapter 79, Self-Assessment Questions

1. The preferred treatment option for an initial UTI episode in a 22-year-old female patient with normal renal function is:
  - A. Trimethoprim-sulfamethoxazole
  - B. Cefuroxime
  - C. Nitrofurantoin
  - D. Amoxicillin
  - E. Ciprofloxacin
  
2. Which of the following treatments options may be used in patients with uncomplicated cystitis as a single-dose therapy:
  - A. Ciprofloxacin
  - B. Amoxicillin/clavulanate
  - C. Gentamicin
  - D. Fosfomycin
  - E. Methenamine
  
3. The preferred antibiotic regimen in a male patient with pyelonephritis and concomitant urosepsis due to *Pseudomonas aeruginosa* is:
  - A. Ertapenem
  - B. Amoxicillin-clavulanic acid
  - C. Fosfomycin
  - D. Piperacillin-tazobactam

E. Gentamicin

4. The preferred regimen for patients requiring a single-dose intravenous antibiotic as supplemental therapy for treatment of pyelonephritis due to fluoroquinolone resistant *E. coli* is:
- A. Trimethoprim-sulfamethoxazole
  - B. Ceftriaxone
  - C. Ampicillin/sulbactam
  - D. Ceftazidime
  - E. Ciprofloxacin
5. Which of the following fluoroquinolone antibiotics should *not* be used for UTIs due to its limited urinary excretion?
- A. Moxifloxacin
  - B. Ofloxacin
  - C. Levofloxacin
  - D. Ciprofloxacin
  - E. Norfloxacin
6. Decreases in a patient's glomerular filtration rate can significantly decrease urine concentrations of all of the following antibiotics *except*:
- A. Gentamicin
  - B. Levofloxacin

- C. Minocycline
- D. Nitrofurantoin
- E. Trimethoprim-sulfamethoxazole

7. A 29-year-old woman who is 20 weeks pregnant has a routine clean-catch urine growth *E. coli* at a scheduled visit. The following are treatment options for this patient *except*:
- a. Amoxicillin-clavulanate
  - b. Cephalexin
  - c. Ciprofloxacin
  - d. Trimethoprim/sulfamethoxazole
  - e. Nitrofurantoin
8. A 26-year-old man with a fever of 39.8°C and flank pain who had a renal transplant 6 months ago and is still on high doses of immunosuppressive therapy. Blood cultures are no growth at 48 hours, but *Klebsiella pneumoniae* ( $> 200$  CFU/mL [ $200 \times 10^3$  CFU/L]) is isolated from his clean-catch urine sample. The patient has a recent history of a long hospital and intensive care unit stay. His creatinine clearance is currently estimated to be 50 mL/min (0.83 mL/s), and his hepatic function is normal. Based on his medical history, which of the following is the *most* appropriate empiric antimicrobial therapy?
- A. Cefazolin
  - B. Cefepime
  - C. Ciprofloxacin
  - D. Doripenem
  - E. No treatment is recommended at this time

9. The urine identification and susceptibility results from the previous patient return *Klebsiella pneumoniae* that is sensitive to all of the antibiotics listed in question 8. Which of the following antibiotics is *most* appropriate for this patient's complicated UTI as outpatient treatment?
- A. Cefazolin
  - B. Cefepime
  - C. Ciprofloxacin
  - D. Doripenem
  - E. No treatment is recommended at this time
10. Methenamine hippurate and methenamine mandelate are effective options for preventing recurrent UTIs due to its mechanism of action of:
- A. Acidifying the urine
  - B. Conversion to the antimicrobial formaldehyde
  - C. Preventing microbial attachment
  - D. Increasing renal clearance of pathogens
  - E. Recolonization of normal flora
11. The appropriate treatment for an asymptomatic 65-year-old man with an indwelling catheter, moderate renal impairment, and bacteriuria with pan-susceptible *Enterobacter cloacae* is:
- A. Trimethoprim-sulfamethoxazole
  - B. Ciprofloxacin
  - C. Ampicillin-sulbactam

- D. Cefepime
  - E. Hold antibiotics and remove the catheter if possible
12. A 60-year-old woman with a urinary catheter develops symptoms of a UTI that include fever, flank pain, elevated white blood count. The patient cannot have the catheter removed, but he is started on ciprofloxacin. The catheter be replaced:
- A. Immediately
  - B. When the initial catheter is 1 week old
  - C. When the initial catheter is 2 weeks old
  - D. When the initial catheter is 4 weeks old
  - E. The catheter should not be replaced as this increasing the risk of reinfection
13. For patients requiring continuous prophylaxis due to recurrent lower tract UTIs, the recommended duration for a prophylaxis course is:
- A. 2 weeks
  - B. 1 month
  - C. 3 months
  - D. 6 months
  - E. 1 year
14. Nitrofurantoin or fosfomycin are currently recommended over ciprofloxacin as first-line empiric agents for treatment of uncomplicated cystitis because these two agents possess:
- A. Limited scope of activity directed toward common uropathogens

- B. Increased adherence potential
- C. Greater activity against *E. coli*
- D. Lower probability for resistance emergence in *E. coli*
- E. No differences have been shown between fluoroquinolone, nitrofurantoin, and fosfomycin treatment regimens

15. A 5-year-old girl with no significant past medical history presents to the pediatrician due to increased urinary incontinence and general complaints of back pain.

Recommend the *most* appropriate empiric antibiotic regimen.

- A. Doxycycline
- B. Ertapenem
- C. Norfloxacin
- D. Amoxicillin-clavulanic acid
- E. Tobramycin

**Answers**

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