

## Antimicrobial Pharmacology – Questions

1. A 24-year-old woman is admitted with dysuria, fever, chills, flank pain, and abdominal tenderness. The urinalysis shows pyuria and bacilli.
  - a. Common uropathogens in this patient include:
  - b. Appropriate empiric antibiotic therapy may include:
  
2. A 19-year-old male presents to clinic complaining of irritation during urination and a discharge in the morning.
  - a. The most likely causes of this infection include:
  - b. Antibiotic choices for treatment include:
  
3. A 73-year-old man with a 40-pack-year history of smoking presents with cough, shortness of breath, and increased sputum production. No infiltrate is found on his CXR.
  - a. Common bacterial respiratory pathogens include:
  - b. Empiric antibiotic therapy may include:
  
4. A 52-year-old male with Type 2 diabetes has an infected toe ulcer.
  - a. Common pathogens associated with diabetic toe ulcers include:
  - b. Appropriate antibiotic treatment may include:
  
5. An 81-year-old female with abdominal pain, fever, nausea, and distress is admitted to the hospital with a diagnosis of peritonitis.
  - a. Common pathogens associated with an IA infection include:
  - b. Empiric treatment of an IA infection may include:
  
6. A 20-year-old male with neck stiffness, fever, headache, and lethargy presents to the ED.
  - a. Common causes of bacterial meningitis in this patient include:
  - b. Appropriate antibiotic treatment may include:

## Antimicrobial Pharmacology – Answers

1. Common uropathogens include: *E. coli*, *K. pneumoniae*, *P. mirabilis*.

Appropriate antibiotic therapy includes: fluoroquinolones, third generation cephalosporins, and aminoglycosides.

2. Likely causes include: *Gonorrhea*, *Chlamydia*, and *Ureaplasma*.

Antibiotic choices include: tetracyclines, macrolides, and fluoroquinolones.

3. Common bacterial pathogens include: *S. pneumoniae*, *H. influenzae*, and *M. catarrhalis*.

Empiric antibiotic therapy may include: Third generation cephalosporins, fluoroquinolones, macrolides, penicillins plus beta-lactamase inhibitors, and tetracyclines.

4. Common pathogens include: *S. aureus*, *Streptococci*, *gram-negative bacilli*, and *anaerobes*.

Empiric treatments may include: Penicillin plus beta-lactamase inhibitor, second generation cephalosporins, fluoroquinolones (with or without metronidazole), aminoglycosides plus clindamycin.

5. Common pathogens include GNR (*E. coli*, *Klebsiella*, *Enterobacter*), *Enterococci*, and anaerobes.

Empiric treatments may include a fluoroquinolone plus metronidazole, a penicillin plus a beta-lactamase inhibitor, aminoglycosides plus ampicillin plus clindamycin, and carbapenems.

6. Common bacterial pathogens are *N. meningitidis* and *S. pneumoniae*.

Empiric treatments may include a penicillin, a third generation cephalosporin, or vancomycin.