

**Clinical Pearls
Infectious Diseases**

**Pritish K. Tosh, MD
MN ACP
Nov 7, 2014**

[Answers and discussion slides will be posted after the meeting]

Case 1

A 33-year-old male with diffuse large B-cell lymphoma is admitted to the hospital with undifferentiated fever 7 days after chemotherapy with R-CHOP. He has not recently received any antimicrobials.

BP: 125/85, HR: 85 Temp 39.0 O₂ saturation: 98%, SKIN: no erythema, warmth, or tenderness surrounding right chest tunneled central venous catheter, ENT: no evidence of mucositis, LUNGS: Clear

Absolute neutrophil count: undetectable. Chest x-ray is normal, urine and blood cultures are drawn and pending

Which of the following is the best empiric antimicrobial regimen?

- A. IV ertapenem + po azithromycin
- B. IV ceftriaxone
- C. IV cefepime
- D. IV ceftazidime + IV vancomycin
- E. No antimicrobials are needed at this time

Case 2

A 23-year-old woman without any significant medical comorbidities present as an outpatient with dysuria and increased urinary frequency. She has no evidence of systemic illness. She has a documented sulfa allergy (urticarial). Dipstick urine test is positive for leukocytes and nitrites and urine pregnancy test is negative.

Which of the following is a recommended first-line antimicrobial regimen for the treatment of uncomplicated urinary tract this patient?

- A. Trimethoprim-sulfamethoxazole
- B. Ciprofloxacin
- C. Amoxicillin-clavulanic acid
- D. Cefuroxime
- E. Fosfomycin

Case 3

A 45-year-old female without any pre-existing medical conditions presents as an outpatient with 18 hours of fever, cough, and myalgia. She is able to maintain oral intake. Public health authorities have identified that Influenza A is in widespread circulation.

BP: 115/75, HR: 95 Temp 39.3 O₂ saturation: 95%, HEART: Regular, no murmurs LUNGS: Clear

What is the best testing and treatment strategy?

- A. No testing needed, treat empirically with oseltamivir
- B. Test a nasopharyngeal swab for influenza by PCR, treat empirically with oseltamivir regardless of the result
- C. Test a nasopharyngeal swab for influenza by PCR, treat with oseltamivir if positive
- D. Test a nasopharyngeal swab for influenza by PCR, treat with oseltamivir if there is clinical decline
- E. No testing or antiviral treatment is needed at this time.

Case 4

A 24-year-old woman of 16 weeks gestation with her second child presents as an outpatient for advice regarding pertussis vaccination. She had completed her childhood DTaP series and received Tdap vaccination at the time of delivery of her first child three years ago.

Which of the following should you advise?

- A. Tdap vaccination now
- B. Tdap vaccination after 20 weeks gestation
- C. Tdap vaccination shortly after delivery
- D. Tdap vaccination two months after delivery
- E. Routine Td vaccination 10 years after her previous Tdap dose

Case 5

A 55-year-old man developed *Clostridium difficile* infection (CDI) after a course of levofloxacin for bronchitis. Although he responded to a 14 day course of oral metronidazole, he developed recurrent CDI five days after completing this course. He then responded to a 14 day course of oral vancomycin, but then had recurrent disease six days after completing this course. He was then given a two month tapering course of oral vancomycin, but again developed recurrent CDI.

Which of the following treatment modalities is most likely to resolve the patient's recurrent CDI?

- A. Fecal microbiota transplantation
- B. Two month tapering course of oral vancomycin with oral *Saccharomyces cerevisiae*
- C. Two month tapering course of oral vancomycin with weekly IVIG
- D. 14 day course of oral rifaximin
- E. 14 day course of oral fidaxomicin

Case 6

A 55-year-old woman with rheumatoid arthritis is recommended to start adalimumab (Humira) by her rheumatologist. She has no medical allergies and does not have a history of significant adverse events following vaccinations.

Which of the following is recommended for the prevention of complications from pneumococcal disease in this patient?

- A. Vaccination with 23-valent polysaccharide vaccine now.
- B. Vaccination with 13-valent conjugate vaccine now.
- C. Vaccination with 13-valent conjugate vaccine now followed by vaccination with 23-valent polysaccharide vaccine after 8 weeks.
- D. Vaccination with 13-valent conjugate vaccine now followed by vaccination with 23-valent polysaccharide vaccine at age 65 years.
- E. Vaccination with 23-valent polysaccharide vaccine now, repeat in five years.

Case 7

A 23-year-old man presents as an outpatient for three days of urethritis following unprotected sexual contact with a new female partner. He appears well and does not have any signs of systemic illness. Nucleic acid amplification testing of urine is positive for *N. gonorrhoeae* and *C. trachomatis*. He has no known medication allergies. He mentions that he would prefer not to have “a shot” if there are oral options that are likely to be as effective.

What antimicrobial regimen should be recommended?

- A. Ceftriaxone 250 mg IM x1 and azithromycin 1g orally x1
- B. Cefixime 400 mg orally x1 and doxycycline 100 mg orally twice daily x 7 days
- C. Azithromycin 2 g orally x 1
- D. Ciprofloxacin 500 mg orally x1
- E. Levofloxacin 500 mg orally x1 and doxycycline 100 mg orally twice daily x 7 days

Case 8

A 37-year-old man without any significant medical comorbidities presents to the emergency department with an abscess on his right forearm that has slowly been progressing for the last 48 hours. The abscess is warm, erythematous, and tender to palpation. He recalls no antecedent trauma or animal exposures.

He is febrile to 38.8°C and slightly diaphoretic, but otherwise well appearing. Vital signs are otherwise normal.

Incision and drainage is performed with expression of purulent material.

What antimicrobial regimen should be prescribed for the patient?

- A. Oral cephalexin
- B. IV cefazolin
- C. Oral amoxicillin-clavulanate
- D. Oral clindamycin
- E. IV vancomycin