

QP3 – Daily Question Preview: Day 3

Moderator: Richard Whitley, MD



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8/22/2022



PREVIEW QUESTION

3.1 A pregnant patient living with HIV (CD4 260 cells/mm³; HIV RNA <50 copies/ml) on ART presents with a diffuse rash.

On examination, she has a temperature of 38.3°C and a macular rash on her trunk and extremities including her palms.

Serum RPR is reactive at a titer of 1:2048 and FTA-ABS is reactive.

She has a history of severe hives to penicillin but has tolerated cephalosporins.

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3.1 Which of the following antibiotics is most appropriate?

- A) Azithromycin
- B) Benzathine penicillin G
- C) Ceftriaxone
- D) Doxycycline

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PREVIEW QUESTION

3.1 Which of the following antibiotics is most appropriate?

- A) Azithromycin
- B) Benzathine penicillin G ***
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3.2

A 30-year-old man with HIV presents with severe pain on defecation and bloody anal discharge.

He had unprotected anal sex one week ago.

He experiences pain with DRE.

There are no visible anal ulcers but a bloody mucoid anal discharge is noted.

No diagnostic tests are available.

3.2

Which of the following empiric antibiotic regimens is most appropriate?

A) Ceftriaxone 500mg IM + Azithromycin 1g PO X1

B) Ceftriaxone 500mg IM + Doxycycline 100mg PO BID X 7d

C) Ceftriaxone 500mg IM + Azithromycin 1g PO weekly X 3wks

D) Ceftriaxone 500mg IM + Doxycycline 100mg PO BID X 21d

E) Ceftriaxone 500mg IM + Doxycycline 100mg PO BID X 7d + oral valacyclovir

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 - C) Ceftriaxone 500mg IM + Azithromycin 1g PO weekly X 3wks
 - D) Ceftriaxone 500mg IM + Doxycycline 100mg PO BID X 21d ***
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- 3.3** A 32-year-old man presents complaining of a penile discharge.
- Gram's stain of the urethral discharge reveals intracellular Gram-negative diplococci.
- He reports an allergy to penicillins and cephalosporins.

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3.3 Which of the following regimens does the CDC recommend as the most appropriate therapy?

- A) Azithromycin
- B) Azithromycin plus ceftriaxone
- C) Azithromycin plus gentamicin
- D) Ciprofloxacin
- E) Spectinomycin

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3.4 A man with persistent urethritis following doxycycline therapy is tested and found to be positive for *Mycoplasma genitalium*.

Which of the following is the most appropriate therapy?

- A) Azithromycin 1g orally
- B) Azithromycin 500mg orally X1 followed by 250 mg daily on the subsequent 3 days
- C) Doxycycline 100 mg orally twice daily for 14 days
- D) Moxifloxacin 400 mg orally daily for 10 days

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3.5

A 30-year-old heart transplant has received acyclovir for the past 60 days for cutaneous HSV infection. The lesions are now progressive in spite of high-dose intravenous therapy.

The most likely cause for disease progression is a deficiency or alteration of:

- A) Ribonucleotide reductase
- B) Reverse transcriptase
- C) Protease
- D) Thymidine kinase
- E) DNA polymerase

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3.6 An 18-year-old man presents with a history of malaise, low-grade fevers, and new-onset painful genital lesions seen in the picture below.

He had unprotected sexual intercourse with a female partner 2 weeks earlier.

Neither he nor his partner has traveled outside the United States.



3.6 Which of the following diagnostic tests is most likely to yield the specific diagnosis?

- A) Serum RPR
- B) Serum FTA-Abs
- C) Darkfield microscopy
- D) Glycoprotein-G 1 serum antibodies
- E) PCR on lesion swab

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- 3.7** You are asked to see a 35-year-old woman with a history of seizure disorder admitted to the ICU with a fever to 40°C, hypotension, and a maculopapular rash.
- She is being empirically treated with vancomycin and piperacillin-tazobactam. Blood, urine, and sputum cultures (taken prior to antibiotic initiation) are negative.

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3.7 Exam: Tachycardia with otherwise normal vital signs. Diffuse maculopapular rash with facial edema and sparing of the mucosal surfaces.

Labs are notable for elevated AST/ALT and peripheral eosinophilia.

Only home medication is lamotrigine, which was started two weeks prior to admission.

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3.7 Her clinical syndrome is most consistent with:

- A) Sepsis
- B) Stevens–Johnson syndrome (SJS)/toxic epidermal necrolysis (TEN)
- C) DRESS (drug-induced hypersensitivity syndrome)
- D) Erythema Multiforme
- E) Neuroleptic Malignant Syndrome (NMS)

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 - C) DRESS (drug-induced hypersensitivity syndrome) ***
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- 3.8** A 37-year-old man recently diagnosed with HIV presents to clinic for routine care after starting antiretroviral therapy 3 months ago. He has not received pneumococcal vaccination.
- Which of the following is most accurate?
- A) He does not need pneumococcal vaccination as he is under 65
 - B) He needs a PCV13 alone
 - C) He needs a PCV13 followed 1 year later by a PPSV23
 - D) He needs a PCV20 alone

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- D) He needs a PCV20 alone ***

3.9

A 62-year-old woman with a self-reported history of shingles 10 years ago and type II diabetes presents to clinic. She received the live-attenuated zoster vaccine (ZVL) 2 years ago.

What do you recommend regarding the zoster vaccine?

- A) Vaccine not indicated given her history of zoster
- B) Vaccine not indicated as she has received ZVL
- C) Check VZV titer to confirm history. If negative, proceed with vaccination
- D) Recommend recombinant zoster vaccine

3.9

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3.10

42-year-old female has malaise and RUQ pain; she just returned from 2 months working at an IDP camp in north Uganda.

She endorses tick and other 'bug' bites and swam in the Nile. 1st HAV vaccine 2 days before departure. Prior HBV vaccine series.

Exam shows no fever, vitals are normal. RUQ tender. Mild icteric. ALT 1245 IU/ml; Hb 13.4 g/dl; TB 3.2 mg/dl; WBC 3.2k nl differential.

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3.10 Which test result is most likely positive?

- A) Ebola PCR
- B) IgM anti-HEV
- C) IgM anti-HAV
- D) Schistosomiasis “liver” antigen
- E) 16S RNA for Rickettsial organism

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3.11 38-year-old woman presents with a 2-day history of fever, headache and stiff neck; similar episodes have occurred every 3-4 months over several years, with spontaneous abatement after 4-5 days.

She is sexually active only with her husband of 8 years, and has 2 children at home (ages 2 and 5 years).

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3.11 On exam, T 99.8°F and other vital signs are normal; she has evidence of meningismus, but is alert and oriented and with no focal findings.

Laboratory studies are normal.

CSF analysis reveals a WBC of 70/mm³ (100% lymphs), glucose of 60 mg/dL, and protein of 100 mg/dL; Gram stain negative.

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- 3.11** Which of the following is the most likely etiology of this patient's meningitis?
- A) Coxsackie A virus
 - B) Coxsackie B virus
 - C) Human immunodeficiency virus
 - D) Herpes simplex virus type 2
 - E) Human herpesvirus 6

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3.12 A 35-year-old woman presents to the hospital with a 2-day history of fever, chills, headache, and mild confusion. She had head trauma several weeks earlier, associated with clear fluid draining out of her nose.

T 40.5°C, P 140, RR 32, BP 90/60 mmHg.

Obtunded, stiff neck.

WBC 30,000/mm³ (40% bands), platelets 20,000/mm³.

Lumbar puncture revealed an opening pressure of 400 mm H₂O, WBC 2500/mm³ (99% segs), glucose 20 mg/dL, and protein 400 mg/dL

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3.12 Which of the following empiric antimicrobial regimens should be initiated?

A) Ampicillin

B) Ceftriaxone

C) Vancomycin + ampicillin

D) Vancomycin + ceftriaxone

E) Vancomycin + ciprofloxacin

3.12 Which of the following empiric antimicrobial regimens should be initiated?

- A) Ampicillin
- B) Ceftriaxone
- C) Vancomycin + ampicillin
- D) Vancomycin + ceftriaxone ***
- E) Vancomycin + ciprofloxacin

3.13 54-year-old man was anti-HCV pos after elevated ALT noted by primary.

Brief IDU when 20-21; moderate ETOH; otherwise well.

HCV RNA 4 million IU/L; Genotype 1a; ALT 42 IU/ml; AST 65 IU/ml; TB 1.6 mg/dl; Alb 3.9 mg/dl; Hb – 13.4 mg/dl; creatinine 1.2 mg/dl; HBsAg pos; anti-HBc pos.

HIV neg.

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3.13 Which of the following is the next appropriate step:

- A) Treat with oral regimen for 8-12 weeks
- B) Check HCV 1a resistance test
- C) Elastography
- D) Confirm HCV antibody test

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3.14 You are called about 62-year-old Vietnamese scientist who is in oncology suite where he is about to get R-CHOP for Non Hodgkins lymphoma.

Baseline labs: normal AST, ALT, and TBili.

Total HAV detectable; anti-HBc pos; HBsAg neg; anti-HCV neg.

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3.14 What do you recommend?

- A) Hold rituximab
- B) Hold prednisone
- C) Entecavir 0.5 mg
- D) HCV PCR
- E) HBV DNA

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3.15 79-year-old female is transferred from a nursing home for failure to thrive as a result of decreased oral intake. A nasogastric tube is placed via the left nares for enteral hyperalimentation.

One week into her hospital course, the patient develops fever to 101.5°F, and left periorbital edema and chemosis.

CT scan of the head without contrast reveals opacification of the sphenoid sinus.

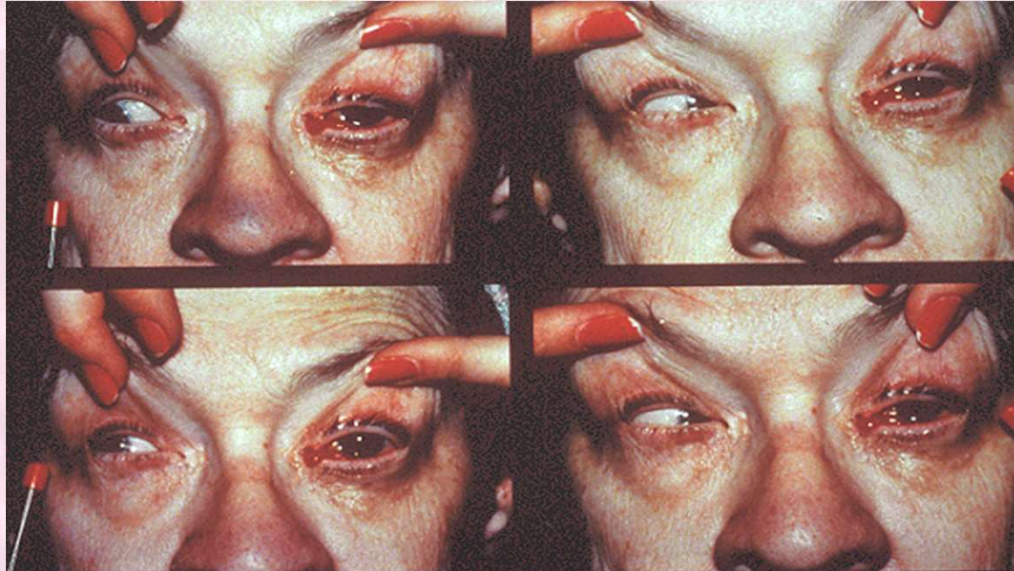
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3.15



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3.15 Which of the following studies should be performed to establish the diagnosis?

- A) CT scan of the head and sinuses with contrast
- B) MR imaging with MR venography
- C) Cerebral angiography
- D) Positron emission tomography of the head
- E) Lumbar puncture

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