

14 - Daily Question Review 2

John Bennett, MD (Moderator)

2020 INFECTIOUS DISEASE BOARD REVIEW

Daily Question Preview 2

Moderator: John Bennett, MD

2020 INFECTIOUS DISEASE BOARD REVIEW **PREVIEW QUESTION**

1.1

A 35-year-old woman presents with a painless ulcer on her vulva and one on her soft palate following unprotected vaginal and receptive oral sex 3 weeks earlier. She has no other symptoms.

Examination reveals the two ulcers with heaped-up borders and a clean base.

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1.1

Which of the following diagnostic tests is inappropriate to obtain?

- A) Serum RPR
- B) Serum VDRL
- C) Serum treponemal EIA
- D) Darkfield microscopy on a specimen obtained from the oral ulcer
- E) Darkfield microscopy on a specimen obtained from the vulvar ulcer

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1.2

A pregnant HIV+ woman (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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1.2

Which of the following antibiotics is most appropriate?

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

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1.3

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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1.3 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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1.4

A 22-year-old woman presents complaining of a vaginal discharge.

Her examination is remarkable for a gray homogenous discharge. A vaginal swab is obtained which reveals a pH>6.0, motile trichomonads, and the presence of 3 Amsel's criteria.

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1.5 Which of the following is the most appropriate antimicrobial regimen for her and her partner?

	Patient	Partner
A	Metronidazole 2g X1	None
B	Metronidazole 2g X1	Metronidazole 2g X1
C	Metronidazole 1 week	None
D	Metronidazole 1 week	Metronidazole 2g X1
E	Metronidazole 1 week	Metronidazole 1 week

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1.6

A 36-year-old man is on a hiking trip in northern California and is bitten on his lower leg by a skunk.

Upon presentation, he is afebrile and has several puncture wounds on his right lower extremity.

You irrigate with wounds with soap and povidone iodine, and administer a tetanus booster.

He has never been vaccinated against rabies.

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1.6

In addition to administration of rabies vaccine, what is the most appropriate management?

- A) Rabies immune globulin at the bite sites
- B) Rabies immune globulin in the deltoid muscle
- C) Rabies immune globulin in the buttocks
- D) Rabies immune globulin intraperitoneally
- E) Nothing further is indicated

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1.7

A 22-year-old woman with no significant past medical or psychiatric history develops headache and low-grade fever followed by confusion and hallucinations.

On presentation, she is afebrile and disoriented; she has evidence of abnormal movements of her mouth and face.

CSF analysis reveals a WBC count of 20/mm³, with normal glucose and protein.

Brain MRI is normal.

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1.7 EEG reveals diffuse slowing

CSF Gram stain and cultures, and PCR for HSV are negative

A diagnosis of autoimmune encephalitis is considered and appropriate studies sent

CSF returns positive for antibodies to the NR1 subunit of the N-methyl-D-aspartate receptor

Corticosteroids and IV immune globulin are initiated

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1.7 Which of the following studies should now be performed?

A) CT scan of the chest

B) CT scan of the abdomen

C) Carotid ultrasound

D) Renal ultrasound

E) Transvaginal ultrasound

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1.8 A 22-year-old man with h/o egg allergy and no prior influenza vaccine presents for routine visit. He states he has had hives after eating eggs. No h/o anaphylaxis.

Which of the following is recommended?

A) Defer vaccination and refer to an allergist for testing

B) Vaccinate with any inactivated influenza vaccine without monitoring

C) Vaccinate and monitor for 30 minutes after receiving any inactivated influenza vaccine

D) Vaccinate with only live attenuated influenza vaccine

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1.9 A 24-year-old healthy male presents for routine clinic visit. He is not on any medications. He smokes cigarettes. He is sexually active with both men and women and uses condoms consistently.

Which of the following is correct regarding HPV vaccine?

A) He should receive 2 doses of HPV-9 spaced 6 months apart

B) He should receive 3 doses of HPV-9 at 0, 1, and 6 months

C) He does not need HPV vaccine as he is already sexually active

D) HPV vaccination is only recommended in males through age 21

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1.10 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

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1.11 A 42-year-old female has malaise and RUQ pain; she just returned from 6 month stay 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; TB 3.2 mg/dl; WBC 3.2k nl differential.

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1.11 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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1.12 24-year-old 33 wks gestation with nausea and vomiting and RUQ pain.

Taking acetaminophen 1gm q 4-6; has dog and bird; recent visit to mom in NC.

T 37.2; BP 158/110; 2/6 SEM; RUQ tender; no rash. Plt 103K; Hct 26; WBC 6.6 10%L; PMN 82%; G 85; creat 0.6; ALT 225; AST 559; TB 1.4; CRP 15.8; PT WNL; fibrinogen NL.

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1.12 What is the best diagnosis?

- A) HELLP
- B) Acute fatty liver of pregnancy
- C) HAV infection
- D) HSV infection
- E) HEV

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1.13 A 44-year-old, anti-HCV and HCV RNA positive man feels bad after a recent alcohol binge.



He has a chronic rash on arms that is worse and elevated ALT and AST.

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1.13 The most likely dx is:

- A) Cirrhosis due to HCV and alcohol
- B) Vibrio vulnificus
- C) Porphyria cutanea tarda
- D) Essential mixed cryoglobulinemia
- E) Yersinia infection

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1.14 A 60-year-old man with chronic kidney disease immigrated from Brazil to the US and underwent a cadaveric renal transplant.

Prior to transplant, he had episodes of recurrent epigastric pain. At the time, his WBC was 6,500/mm³ with 15% eosinophils.

After transplant, he received immunosuppressive therapy

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1.14 Presented 1 month later with headache, meningismus and altered mental status, and a temperature of T 39oC

Lumbar puncture had WBC 2500/mm3 (98% neutrophils), glucose 20 mg/dL, and protein 450 mg/dL

Placed on empiric antimicrobial therapy with vancomycin, ampicillin, and ceftriaxone
Cultures of blood and CSF grew Escherichia coli

INFECTIOUS DISEASE BOARD REVIEW **PREVIEW QUESTION**

1.15 Which of the following diagnostic tests would most likely establish the pathogenesis of E. coli meningitis in this patient?

- A) MRI of the head and sinuses
- B) Right upper quadrant ultrasound
- C) Serial stool examinations
- D) Cisternography
- E) Colonoscopy

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1.16 A 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)

On exam, T 99.8oF 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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1.16 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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1.17 A 24-year-old female who presented with pain and swelling on the right side of her jaw that had been progressing over the last several weeks.

She was unable to open her mouth. She denied fever or headache, and had no past hospitalizations or illnesses. The patient had not been to the dentist within 10 years.

T 99.8oF, P 88, RR 14, BP 110/80

Exam revealed swelling and erythema along her right mandible

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1.17



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1.17



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

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1.17

Which of the following empiric antimicrobial regimens should be initiated?

- A) Ceftriaxone + metronidazole
- B) Vancomycin + cefepime
- C) Trimethoprim-sulfamethoxazole
- D) Voriconazole
- E) Liposomal amphotericin B

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1.18

A 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 101.5o F, and left periorbital edema and chemosis

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

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1.18



INFECTIONIOUS DISEASE BOARD REVIEW PREVIEW QUESTION

1.18

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