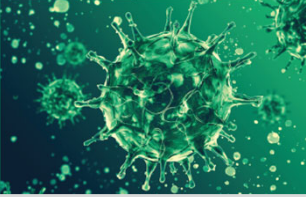


QP3 Question Preview: Day 3

Moderator: Paul Auwaerter, MD

IDBR
INFECTIOUS DISEASE BOARD REVIEW
AUGUST 17-21, 2024



Daily Question Preview: Day 3

Moderator: Paul Auwaerter, MD

8/19/2024

PREVIEW QUESTION **INFECTIOUS DISEASE BOARD REVIEW** **2024**

3.1 A pregnant patient 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.

1 of 3

PREVIEW QUESTION **INFECTIOUS DISEASE BOARD REVIEW** **2024**

3.1 Which of the following antibiotics is most appropriate?

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

2 of 3

PREVIEW QUESTION **INFECTIOUS DISEASE BOARD REVIEW** **2024**

3.1 Which of the following antibiotics is most appropriate?

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

3 of 3

PREVIEW QUESTION **INFECTIOUS DISEASE BOARD REVIEW** **2024**

3.2 Formerly healthy 48M with 3 months of chronic fevers, cough, 25 lb weight loss, night sweats, presented with acute worsening on dyspnea and was found to have a high fever and diffuse lung infiltrates bilaterally. Office worker in Md. No travel. Wife healthy.

Vitals: 39.3C, HR 97, RR 29, BP 97/54, O2: 88% on room air
Crackle all over lung, spleen tip felt.

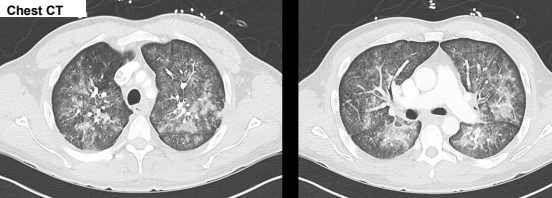
WBC: 5,300, HgB 10.1 Plt 119,000, ALP 218, ALT 43, AST54, lactate 2.5, ferritin 2418, triglycerides 250. HIV neg.

Intubation, pressors, ceftriaxone, voriconazole

1 of 4

PREVIEW QUESTION **INFECTIOUS DISEASE BOARD REVIEW** **2024**

3.2 **Chest CT**



2 of 4

QP3 Question Preview: Day 3

Moderator: Paul Auwaerter, MD

PREVIEW QUESTION 2024 INFECTIOUS DISEASE BOARD REVIEW

3.2 The preferred diagnostic procedure is:

- A) Bronchoscopy
- B) Transthoracic needle lung biopsy
- C) VATS lung biopsy
- D) Serum antigen
- E) Bone marrow

3 of 4

PREVIEW QUESTION 2024 INFECTIOUS DISEASE BOARD REVIEW

3.2 The preferred diagnostic procedure is:

- A) Bronchoscopy
- B) Transthoracic needle lung biopsy
- C) VATS lung biopsy
- D) Serum antigen***
- E) Bone marrow

4 of 4

PREVIEW QUESTION 2024 INFECTIOUS DISEASE BOARD REVIEW

3.3 44 yr previously healthy male accountant in Washington DC presented with the acute onset of confusion that was preceded by three months of headache.

Cranial MRI was normal. Lumbar CSF had an opening pressure of 350mm CSF, WBC 250/cu mm, glucose 22 mg/dl, protein 125 mg/dl and cryptococcal antigen titer 1:512. Liposomal amphotericin B was begun at 5.0 mg/kg IV daily.

On the third day of treatment he complained that the room was too dark and was found to have visual acuity of hand motion only in both eyes.

1 of 3

PREVIEW QUESTION 2024 INFECTIOUS DISEASE BOARD REVIEW

3.3 The most important next step in this patient is which of the following:

- A) Start flucytosine
- B) Start fluconazole
- C) Start acetazolamide (Diamox)
- D) Begin daily lumbar punctures
- E) Start dexamethasone

2 of 3

PREVIEW QUESTION 2024 INFECTIOUS DISEASE BOARD REVIEW

3.3 The most important next step in this patient is which of the following:

- A) Start flucytosine
- B) Start fluconazole
- C) Start acetazolamide (Diamox)
- D) Begin daily lumbar punctures***
- E) Start dexamethasone

3 of 3

PREVIEW QUESTION 2024 INFECTIOUS DISEASE BOARD REVIEW

3.4 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.

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

1 of 2

QP3 Question Preview: Day 3

Moderator: Paul Auwaerter, MD

PREVIEW QUESTION

INFECTIOUS DISEASE BOARD REVIEW 2024

3.4 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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- A) Azithromycin
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- C) Azithromycin plus gentamicin*****
- D) Ciprofloxacin
- E) Spectinomycin

2 of 2

PREVIEW QUESTION

INFECTIOUS DISEASE BOARD REVIEW 2024

3.5 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 (assume today is his last day of doxycycline)?

- 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 7 days

1 of 2

PREVIEW QUESTION

INFECTIOUS DISEASE BOARD REVIEW 2024

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- C) Doxycycline 100 mg orally twice daily for 14 days
- D) Moxifloxacin 400 mg orally daily for 7 days*****

2 of 2

PREVIEW QUESTION

INFECTIOUS DISEASE BOARD REVIEW 2024

3.6 72 year old female with chronic cough, normal CXR, and 1/3 sputums grow MAC.

Which one of the following do you recommend?

- A) CT scan of chest AND Additional sputum AFB cultures
- B) Empiric therapy with azithromycin, ethambutol, and rifampin
- C) Additional sputum AFB cultures
- D) Wait for in vitro susceptibility data and then treat.

1 of 2

PREVIEW QUESTION

INFECTIOUS DISEASE BOARD REVIEW 2024

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- D) Wait for in vitro susceptibility data and then treat.

2 of 2

PREVIEW QUESTION

INFECTIOUS DISEASE BOARD REVIEW 2024

3.7 20 y.o. male complains of fever, night sweats and weight loss. Has generalized lymphadenopathy. HIV antibody positive; CD4 20 cells/ul. Node biopsy: non-caseating granuloma, AFB seen.

Based on the most likely diagnosis, which of the following do you recommend :

- A) Start MAC therapy
- B) Start ART plus MAC prophylaxis
- C) Start MAC therapy and ART
- D) Start ART only

1 of 2

QP3 Question Preview: Day 3

Moderator: Paul Auwaerter, MD

PREVIEW QUESTION

INFECTIOUS DISEASE BOARD REVIEW 2024

3.7 20 y.o. male complains of fever, night sweats and weight loss. Has generalized lymphadenopathy. HIV antibody positive; CD4 20 cells/ul. Node biopsy: non-caseating granuloma, AFB seen.

Based on the most likely diagnosis, which of the following do you recommend :

- A) Start MAC therapy
- B) Start ART plus MAC prophylaxis
- C) Start MAC therapy and ART *****
- D) Start ART only

2 of 2

PREVIEW QUESTION

INFECTIOUS DISEASE BOARD REVIEW 2024

3.8 62M living in an exurb of Phoenix, Arizona presents in early September with a three day history of fever, myalgia, headache and rash.

He works as a lineman for a utility company. He lives with his family in an older adobe home with dogs.

There is a faint maculopapular rash on extremities

1 of 3

PREVIEW QUESTION

INFECTIOUS DISEASE BOARD REVIEW 2024

3.8 Which of the following is the most likely diagnosis?

- A) Human Monocytic Ehrlichiosis (HME)
- B) Human Granulocytic Anaplasmosis (HGA)
- C) Babesiosis
- D) Rocky Mountain Spotted Fever (RMSF)
- E) Tularemia

2 of 3

PREVIEW QUESTION

INFECTIOUS DISEASE BOARD REVIEW 2024

3.8 Which of the following is the most likely diagnosis?

- A) Human Monocytic Ehrlichiosis (HME)
- B) Human Granulocytic Anaplasmosis (HGA)
- C) Babesiosis
- D) Rocky Mountain Spotted Fever (RMSF)*****
- E) Tularemia

3 of 3

PREVIEW QUESTION

INFECTIOUS DISEASE BOARD REVIEW 2024

3.9 31M from Tidewater region of Virginia presents in June with three days of fever and rash.

Exam: unremarkable but T39.2°C, discrete black eschar on leg, scattered maculopapular rash elsewhere.



1 of 3

PREVIEW QUESTION

INFECTIOUS DISEASE BOARD REVIEW 2024

3.9 Which of the following is the most likely etiologic agent?

- A) *Rickettsia rickettsii*
- B) *Ehrlichia chaffeensis*
- C) *Rickettsia parkeri*
- D) *Anaplasma phagocytophilum*
- E) *Rickettsia akari*

2 of 3

QP3 Question Preview: Day 3

Moderator: Paul Auwaerter, MD

PREVIEW QUESTION 2024 INFECTIOUS DISEASE BOARD REVIEW

3.9 Which of the following is the most likely etiologic agent?

- A) *Rickettsia rickettsii*
- B) *Ehrlichia chaffeensis*
- C) *Rickettsia parkeri******
- D) *Anaplasma phagocytophilum*
- E) *Rickettsia akari*

3 of 3

PREVIEW QUESTION 2024 INFECTIOUS DISEASE BOARD REVIEW

3.10 38 y/o healthy physician; periodic travel to South Africa for work.

6 years ago: pos TST; poor adherence with isoniazid preventive therapy.

Now 5 weeks of fever, chills, night sweats, 10-lb wt loss, productive cough.

CXR RUL cavitary lesion.

Sputum Xpert MTB/RIF: "MTB detected" & "Rifampin resistance not detected".

HIV negative, LFTs normal.

1 of 3

PREVIEW QUESTION 2024 INFECTIOUS DISEASE BOARD REVIEW

3.10 What is the best course of action?

- A) Prescribe 9 months of isoniazid for presumed latent TB infection
- B) Do nothing pending culture results
- C) Start TB treatment with rifampin, isoniazid, PZA, ethambutol
- D) Start TB treatment with rifampin, isoniazid, PZA
- E) Start TB treatment with a regimen for multidrug-resistant TB

2 of 3

PREVIEW QUESTION 2024 INFECTIOUS DISEASE BOARD REVIEW

3.10 What is the best course of action?

- A) Prescribe 9 months of isoniazid for presumed latent TB infection
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- C) Start TB treatment with rifampin, isoniazid, PZA, ethambutol*****
- D) Start TB treatment with rifampin, isoniazid, PZA
- E) Start TB treatment with a regimen for multidrug-resistant TB

3 of 3

PREVIEW QUESTION 2024 INFECTIOUS DISEASE BOARD REVIEW

3.11 24 y/o M from Zambia, in U.S. for community college, recently tested HIV-positive, CD4 400, not yet on ART.

Prominent anterior cervical lymph node but well-appearing, normal BMI, normal liver and renal chemistries, mild anemia.

Lymph node biopsy grows *M. tuberculosis* in culture.

1 of 3

PREVIEW QUESTION 2024 INFECTIOUS DISEASE BOARD REVIEW

3.11 Best course of action regarding timing of TB therapy and HIV therapy?

- A) Start ART immediately, defer TB tx
- B) Start TB tx immediately, defer ART until completes 6 months TB tx
- C) Start TB tx immediately, and start ART within about 8 weeks
- D) Start both TB tx AND ART immediately

2 of 3

PREVIEW QUESTION INFECTIOUS DISEASE BOARD REVIEW 2024


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- A) Start ART immediately, defer TB tx
- B) Start TB tx immediately, defer ART until completes 6 months TB tx
- C) Start TB tx immediately, and start ART within about 8 weeks***
- D) Start both TB tx AND ART immediately

3 of 3

PREVIEW QUESTION INFECTIOUS DISEASE BOARD REVIEW 2024

3.12 A 56 y.o. man from southern Missouri
Onset in July:
--Myalgia and malaise
--Rash x 2d at site of tick bite 1 week ago



Exam: T 37.0° C
Annular "bulls-eye" ~6 cm
(same area that engorged tick was removed earlier in the week)

1 of 3

PREVIEW QUESTION INFECTIOUS DISEASE BOARD REVIEW 2024

3.12 Which of the following is the most likely diagnosis?

- A) Lyme disease (*Borrelia burgdorferi* infection)
- B) Human Monocytic Ehrlichiosis (*Ehrlichia chaffeensis*)
- C) *Borrelia mayonii*
- D) Southern tick-associated rash illness (STARI)
- E) *B. lonestari* infection

2 of 3

PREVIEW QUESTION INFECTIOUS DISEASE BOARD REVIEW 2024


3.12 Which of the following is the most likely diagnosis?

- A) Lyme disease (*Borrelia burgdorferi* infection)
- B) Human Monocytic Ehrlichiosis (*Ehrlichia chaffeensis*)
- C) *Borrelia mayonii*
- D) Southern tick-associated rash illness (STARI)***
- E) *B. lonestari* infection

3 of 3

PREVIEW QUESTION INFECTIOUS DISEASE BOARD REVIEW 2024

3.13 July, 18M living in suburban Maryland, with this rash growing to ~12 cm, first noted 4d, ago, asymptomatic.



Landscaper, had tick bite 10d ago. PCP gave cephalexin 2d ago.

1 of 3

PREVIEW QUESTION INFECTIOUS DISEASE BOARD REVIEW 2024

3.13 Which of the following is true:

- A) Lack of response to cephalexin is consistent with erythema migrans
- B) Lack of systemic symptoms makes this unlikely to be Lyme disease
- C) Ordering *B. burgdorferi* standard 2-tier serology will likely confirm Lyme disease
- D) Whole blood *B. burgdorferi* PCR is superior to serology in early infection
- E) Tick should be submitted for detection of *B. burgdorferi* by PCR

2 of 3

QP3 Question Preview: Day 3

Moderator: Paul Auwaerter, MD

PREVIEW QUESTION 2024 INFECTIOUS DISEASE BOARD REVIEW

3.13 Which of the following is true:

- A) Lack of response to cephalexin is consistent with erythema migrans***
- B) Lack of systemic symptoms makes this unlikely to be Lyme disease
- C) Ordering *B. burgdorferi* standard 2-tier serology will likely confirm Lyme disease
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- E) Tick should be submitted for detection of *B. burgdorferi* by PCR

3 of 3

PREVIEW QUESTION 2024 INFECTIOUS DISEASE BOARD REVIEW

3.14 What is the most common healthcare-associated infection?

- A) Central line associated bloodstream infections
- B) Catheter-associated urinary tract infections
- C) Hospital-acquired pneumonia
- D) Surgical site infections
- E) *Clostridioides difficile*

1 of 2

PREVIEW QUESTION 2024 INFECTIOUS DISEASE BOARD REVIEW

3.14 What is the most common healthcare-associated infection?

- A) Central line associated bloodstream infections
- B) Catheter-associated urinary tract infections
- C) Hospital-acquired pneumonia***
- D) Surgical site infections
- E) *Clostridioides difficile*

2 of 2

PREVIEW QUESTION 2024 INFECTIOUS DISEASE BOARD REVIEW

3.15 A 63-year-old man with lymphoma is admitted for chemotherapy.

His course is complicated by new atrial fibrillation and hospital acquired pneumonia (treated with vancomycin, cefepime, levofloxacin).

On hospital day 12 he develops severe diarrhea and is diagnosed with *C. difficile* infection.

1 of 3

PREVIEW QUESTION 2024 INFECTIOUS DISEASE BOARD REVIEW

3.15 Where did the patient most likely acquire this pathogen?

- A) From another patient on his ward (carried by healthcare workers' hands)
- B) From the previous occupant of his bed
- C) From the toilet seat of the shared bathroom in his room
- D) From the food provided by the hospital
- E) From the community (already colonized on admission)

2 of 3

PREVIEW QUESTION 2024 INFECTIOUS DISEASE BOARD REVIEW

3.15 Where did the patient most likely acquire this pathogen?

- A) From another patient on his ward (carried by healthcare workers' hands)
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3 of 3