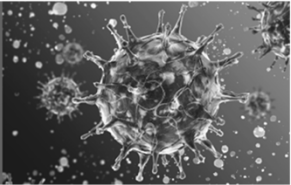


QP4 – Question Preview: Day 4

Moderator: Roy Gulick, MD

IDBR
INFECTIOUS DISEASE BOARD REVIEW
AUGUST 17-21, 2024



Daily Question Preview: Day 4


Moderator: Roy Gulick, MD

7/1/2024

PREVIEW QUESTION **INFECTIOUS DISEASE BOARD REVIEW 2024**

4.1 The patient whose photo is shown is HIV positive (CD4=10 cells/uL, VL=2 mil copies) and has noted these lesions developing on his trunk, face and extremities over the past 8 months.

He has had low grade fevers for several months.



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PREVIEW QUESTION **INFECTIOUS DISEASE BOARD REVIEW 2024**

4.1 For your differential diagnosis, what besides Kaposi sarcoma would be the most likely cause of these lesions and their associated fever?

A) HHV-6
B) CMV
C) Cryptococcus neoformans
D) Bartonella
E) Rhodococcus

2 of 3

PREVIEW QUESTION **INFECTIOUS DISEASE BOARD REVIEW 2024**

4.2 28-year-old man with HIV on TDF/emtricitabine + atazanavir/ritonavir for 2 years with HIV RNA <50 cps/ml and CD4 200s→300s presents for routine follow-up; labs reveal HIV RNA 68 cps/ml and CD4 352.

What do you recommend?

A) Obtain genotype
B) Obtain genotype and phenotype
C) Repeat HIV RNA at next visit
D) Change regimen to TAF/emtricitabine/bictegravir to improve adherence

1 of 2

PREVIEW QUESTION **INFECTIOUS DISEASE BOARD REVIEW 2024**

4.3 You have been monitoring a 36-year-old man with HIV, CD4 ~350, VL 636,000 who is now ready to start ART, but wants the “simplest regimen possible.”

Which of these regimens do you recommend?

A) IM cabotegravir/rilpivirine
B) dolutegravir/rilpivirine
C) tenofovir alafenamide/emtricitabine/rilpivirine
D) dolutegravir/lamivudine
E) tenofovir alafenamide/emtricitabine/bictegravir

1 of 2

PREVIEW QUESTION **INFECTIOUS DISEASE BOARD REVIEW 2024**

4.4

- 34 yo MSM receiving CAB IM q 2 months for pre-exposure prophylaxis for last 6 months
- Asymptomatic
- HIV Ag/Ab test negative
- Routine screening: HIV RNA 6.1 c/ml

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QP4 – Question Preview: Day 4

Moderator: Roy Gulick, MD

PREVIEW QUESTION

INFECTIOUS DISEASE BOARD REVIEW 2024

4.4 Which of the following ARV resistance mutations is most likely in this setting?

- A) S147G
- B) N155H
- C) Y143R
- D) E92Q
- E) K65R

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PREVIEW QUESTION

INFECTIOUS DISEASE BOARD REVIEW 2024

4.5 A 22-year-old man presents with fever, mouth pain, and skin rash. PE reveals 3 small oral ulcers and diffuse macular rash. Labs show WBC 3K, platelets 89K, monospot negative, RPR NR, HIV antibody negative, HIV RNA 1,876,000 cps/ml.

Which statement is correct?

- A) ART should not be offered
- B) ART would decrease his symptoms
- C) ART has long-term virologic benefits in this setting
- D) ART has long-term clinical benefits in this setting

1 of 2

PREVIEW QUESTION

INFECTIOUS DISEASE BOARD REVIEW 2024

4.6 A 52-year-old woman is admitted for progressive SOB, is intubated, undergoes BAL and is found to have PCP. HIV Ab test is positive, CD4 103, HIV RNA 135,000 copies/ml. She is day 4 of IV trimethoprim-sulfa and corticosteroids and still intubated.

When should she start ART?

- A) Immediately
- B) In the next 2 weeks
- C) After completing 21 days of trimethoprim-sulfa
- D) At her first outpatient clinic visit

1 of 2

PREVIEW QUESTION

INFECTIOUS DISEASE BOARD REVIEW 2024

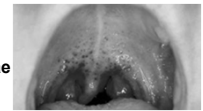
4.7 38yo female with 1 day of sore throat and fever. Childhood history of anaphylaxis to penicillin.

Physical exam:

T=102.3

HEENT-tonsillar erythema & petechiae

Neck-Tender bilateral anterior LAN



Labs:

Rapid strep antigen test negative

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PREVIEW QUESTION

INFECTIOUS DISEASE BOARD REVIEW 2024

4.7 What is the most appropriate antimicrobial treatment?

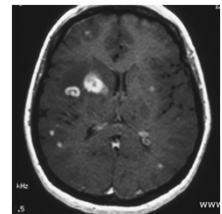
- A) Cephalexin
- B) None
- C) Doxycycline
- D) Clindamycin
- E) Levofloxacin

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PREVIEW QUESTION

INFECTIOUS DISEASE BOARD REVIEW 2024

- 4.8
- 50 yo M with HIV (CD4 40, HIV RNA 600,000 not on antiretroviral therapy) presents with fever, headache
 - Northeast US, no travel; no animal or TB exposures
 - MRI: ring enhancing lesions; no midline shift
 - Serum toxoplasma IgG + CSF: no WBC, normal protein, toxoplasma (tox) PCR pending



1 of 3

QP4 – Question Preview: Day 4

Moderator: Roy Gulick, MD

PREVIEW QUESTION

INFECTIOUS DISEASE BOARD REVIEW 2024

- 4.8** You recommend:
- A) Brain biopsy
 - B) Meningeal biopsy
 - C) Initiate anti-toxo therapy; if no response in 2 weeks, brain biopsy
 - D) Vancomycin, cefepime, metronidazole

2 of 3

PREVIEW QUESTION

INFECTIOUS DISEASE BOARD REVIEW 2024

- 4.9** 50-yo woman with HIV (CD4 20, HIV RNA 500,000) presents with fever and headache. Not on antiretroviral therapy (ART). Diagnosed with cryptococcal meningitis. Started on induction therapy (liposomal amphotericin plus 5FC). When should she be started on ART?
- A) Start ART at the same time as anti-fungal therapy
 - B) About 4 weeks after starting anti-fungal therapy
 - C) 6 months after starting anti-fungal therapy
 - D) After completing a full course of maintenance anti-fungal therapy

1 of 2

PREVIEW QUESTION

INFECTIOUS DISEASE BOARD REVIEW 2024

- 4.10** A 39-year-old woman is admitted for fever for 3 weeks, associated with diffuse arthralgias involving the knees, wrists and ankles.
- A severe sore throat was present during the first week of the illness but has resolved.
- T=104.2°F.
- Tender cervical LAN appreciated.
- Spleen tip is palpable.
- Both knees are swollen & painful.

1 of 4

PREVIEW QUESTION

INFECTIOUS DISEASE BOARD REVIEW 2024

- 4.10** A rash is present on the trunk and extremities, most prominently under the breasts and in the area of her underwear waistband.
- Labs:
- Ferritin 3600 ng/ml (nl 40-200)
 - WBC 32,200 (89% neutrophils)
 - AST and ALT 3x normal
 - ESR and CRP 5x normal
 - ANA and RF negative
- Throat and blood cultures are so far negative
- On afternoon rounds with the attending, the fever has resolved with Tylenol and the rash is no longer present.



2 of 4

PREVIEW QUESTION

INFECTIOUS DISEASE BOARD REVIEW 2024

- 4.10** The most likely diagnosis is?
- A) Lymphoma
 - B) Adult Still's Disease
 - C) Acute Rheumatic Fever
 - D) Cryoglobulinemia
 - E) Kikuchi Disease

3 of 4

PREVIEW QUESTION

INFECTIOUS DISEASE BOARD REVIEW 2024

- 4.11** A 24-year-old man was referred by the ED for evaluation of ulcers of the mouth and penis. He was born in Japan and is in the U.S. to attend graduate school.
- He has a history of recurrent painful oral ulcers for 3-4 years. Four days ago, he developed a painful ulcer on the penile shaft. He takes no medicines and denies sexual contact for the past 5 years.

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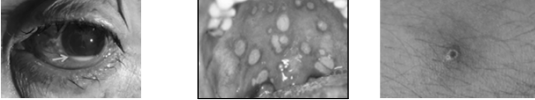
QP4 – Question Preview: Day 4

Moderator: Roy Gulick, MD

PREVIEW QUESTION INFECTIOUS DISEASE BOARD REVIEW 2024

4.11 • Left eye is inflamed and there is a hypopyon.
• Numerous painful ulcers on the oral mucosa.
• There is a 0.5cm ulcer on the penis.

• A 6mm papulo-pustular lesion is present in the right antecubital fossa where they drew blood yesterday in the ED.



2 of 4

PREVIEW QUESTION INFECTIOUS DISEASE BOARD REVIEW 2024

4.11 The most likely diagnosis is?

A. Syphilis
B. Behçet's disease
C. Herpes simplex virus infection
D. Sarcoidosis
E. Cytomegalovirus infection

3 of 4

PREVIEW QUESTION INFECTIOUS DISEASE BOARD REVIEW 2024

4.12 • 55 year old man presents with R hip pain
• H/o COPD requiring steroids frequently
• HIV diagnosed 17 years ago
• On TDF / FTC / EFV for 10 years; originally on IND / AZT / 3TC
• Initial HIV RNA 340,000; CD4 43 cells/ul
• Now HIV RNA < 50 c/ml; CD4 385 cells/ul
• Electrolytes NL; Creat 1.3; Phos 3.5 Ca 8.5
• Mg 2.1, alk phos 130; U/A neg
• R Hip film unremarkable

1 of 3

PREVIEW QUESTION INFECTIOUS DISEASE BOARD REVIEW 2024

4.12 Which of the following is the most likely underlying cause of his hip pain?

A) Osteonecrosis of Femoral Head
B) Fanconi's syndrome
C) Vitamin D deficiency
D) Tenofovir bone disease
E) Hypogonadism

2 of 3

PREVIEW QUESTION INFECTIOUS DISEASE BOARD REVIEW 2024

4.13 • 50-year-old man presents with a several day history of fever, headache, and personality change with progression to confusion
• On exam, temperature is 101°F; he is disoriented and unable to follow commands
• CT scan of the head without contrast is negative
• CSF analysis reveals a WBC of 80/mm³ (95% lymphs), glucose 70 mg/dL (serum 100 mg/dL), protein 120 mg/dL; Gram stain is negative

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PREVIEW QUESTION INFECTIOUS DISEASE BOARD REVIEW 2024

4.13 • Acyclovir is initiated
• MRI with gadolinium reveals enhancement in the left temporal lobe
• Results of initial cerebrospinal fluid (CSF) polymerase chain reaction (PCR) for HSV-1 and HSV-2 return negative
• After 3 days, the patient is now oriented to name and follows simple commands

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QP4 – Question Preview: Day 4

Moderator: Roy Gulick, MD

PREVIEW QUESTION

INFECTIOUS
DISEASE
BOARD REVIEW 2024

4.13 What is the next step in the management of this patient?

- A) Perform a brain biopsy of the left temporal lobe
- B) Obtain new CSF for HSV PCR testing
- C) Send serum for HSV IgG antibodies
- D) Repeat brain MRI
- E) Discontinue acyclovir

3 of 4

PREVIEW QUESTION

INFECTIOUS
DISEASE
BOARD REVIEW 2024

4.14 What's the strongest risk factor for progression of COVID-19 to severe disease?

- A) Older age
- B) Diabetes, heart disease, or other comorbidities
- C) Race/ethnicity
- D) Vaccine status
- E) Being infected with an omicron variant

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PREVIEW QUESTION

INFECTIOUS
DISEASE
BOARD REVIEW 2024

4.15 What's the treatment of choice for COVID-19 with hypoxia?

- A) Nirmatrelvir-ritonavir
- B) Remdesivir
- C) Dexamethasone
- D) A and B
- E) B and C

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