

# 41 - Daily Question Preview: Day 4

Moderator: Roy Gulick, MD



**INFECTIOUS DISEASE BOARD REVIEW**  
TWENTY TWENTY-ONE  
**ID BR 2021**

**Daily Question Preview: Day 4**

Moderator: Roy Gulick, MD

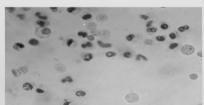


**PREVIEW QUESTION**

**4.1**

A 35-year old woman develops diarrhea, cramps and is passing bloody stools with fever while snorkeling with her family in Cozumel, Mexico

  
Grossly bloody stool

  
Many leukocytes of stool microscopically indicate diffuse colonic inflammation



**PREVIEW QUESTION**

**4.1** What is the preferred treatment for this patient with dysenteric traveler's diarrhea?

A) Azithromycin 1,000 mg  
B) Ciprofloxacin 500 mg twice daily X 3 days  
C) Levofloxacin 500 mg  
D) Rifaximin 200 mg three times/d for 3 days  
E) Oral fluids only



**PREVIEW QUESTION**

**4.2** Three non-family members begin vomiting 2 hours after eating at a local Italian restaurant. What is the likely cause?

A) Shigella spp. from restaurant  
B) Staphylococcal enterotoxin from restaurant  
C) Clostridium perfringens enterotoxin from restaurant  
D) Norovirus from restaurant  
E) Forget the restaurant



**PREVIEW QUESTION**

**4.3** A foodborne outbreak occurred among 100 school children and teachers after a special luncheon.

Median incubation period - 28 hours  
Vomiting seen in 70%  
Diarrhea in 50%  
Objective Fever in 30%  
Recovery occurred in 12-60 hours



**PREVIEW QUESTION**

**4.3** What is the likely cause of the outbreak?

A) Norovirus  
B) Shigella sonnei  
C) Enterotoxin from *Staphylococcus aureus*  
D) Clostridium perfringens  
E) *Bacillus cereus*

# 41 - Daily Question Preview: Day 4

Moderator: Roy Gulick, MD

 PREVIEW QUESTION

**4.4** A 49-year-old woman from Guinea-Bissau has a reactive HIV-1/2 ELISA and a HIV Genius positive for HIV-2 and negative for HIV-1. CD4 cell count is 350 cells/ $\mu$ l.

 PREVIEW QUESTION

**4.4** Which of the following is correct?

- A) HIV-2 is less pathogenic than HIV-1 so she only needs therapy with one antiretroviral drug
- B) She should not be treated with protease inhibitors because HIV-2 is naturally resistant to PIs.
- C) She should not be treated with NNRTI therapy because HIV-2 is naturally resistant to NNRTIs.
- D) Use of routine HIV-1 viral load assays is useful in patient management

 PREVIEW QUESTION

**4.5** Low Dose Pathogens Commonly Cause Diarrhea Outbreaks in Day Care Center. Which of the following doesn't fit?

- A) Shigella
- B) Cryptosporidium
- C) Giardia
- D) Campylobacter jejuni
- E) Norovirus

 PREVIEW QUESTION

**4.6** A 26-year-old otherwise healthy gay white man has his first HIV test as part of a new health plan.

The fourth generation test is antibody reactive and antigen non-reactive.

A supplemental third generation HIV-1/2 ELISA is non-reactive, and an HIV RNA test does not detect HIV RNA.

 PREVIEW QUESTION

**4.6** The most likely explanation for these results is

- A) This person HIV-infected and is an elite controller
- B) This person is HIV-infected but is in the window period for HIV infection
- C) This person is infected with an HIV variant that is not detected by the supplemental test
- D) This person is not HIV-infected

 PREVIEW QUESTION

**4.7** A 65-year-old American male has had unprotected sex with men for many years.

The HIV-1/2 ELISA is reactive and supplemental testing is positive for HIV-1.

Viral RNA level is <50 copies/ml and CD4 count is 700 cells/ $\mu$ l.

He has never been on antiretroviral therapy and has no history of travel outside the US.

# 41 - Daily Question Preview: Day 4

Moderator: Roy Gulick, MD

 PREVIEW QUESTION

**4.7** Which of the following is most likely:

- A) The patient is in the window period of HIV-1 infection.
- B) The patient is chronically infected with HIV-1 and has a viral load too low to be detected because he is a long term non progressor.
- C) The patient is not infected with HIV-1 or -2, all tests are false positive.
- D) The patient is infected with non-B subtype of HIV-1

 PREVIEW QUESTION

**4.8** A 43-year-old HIV+ man has CD4 900-1200 and HIV RNA consistently <200 copies over the last 11 years. Do you recommend starting ART?

- A) Yes, all current guidelines recommend starting.
- B) No, he's a long-term non-progressor and doesn't need ART.
- C) No, he should wait until his viral load level is confirmed >200 copies/ml.
- D) No, he should wait until CD4 is confirmed <500 cells/uL.

 PREVIEW QUESTION

**4.9** You have been monitoring a 36-year-old HIV+ man with 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) raltegravir + darunavir (boosted)
- B) tenofovir alafenamide/emtricitabine/rilpivirine
- C) abacavir/lamivudine + efavirenz
- D) lamivudine/dolutegravir
- E) tenofovir alafenamide/emtricitabine/bictegravir

 PREVIEW QUESTION

**4.10** 28-year-old HIV+ man 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 98 cps/ml and CD4 352.

 PREVIEW QUESTION

**4.10** 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

 PREVIEW QUESTION

**4.11** 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.

# 41 - Daily Question Preview: Day 4

Moderator: Roy Gulick, MD

**PREVIEW QUESTION**

**4.11** 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.

**PREVIEW QUESTION**

**4.12** A 34-year-old HIV-negative nurse sustains a needlestick from an HIV-positive patient who has not taken ART for 2 years.

Which of these post-exposure (PEP) regimens do you recommend?

- A) tenofovir (TDF)/emtricitabine
- B) tenofovir (TDF)/emtricitabine + integrase inhibitor
- C) tenofovir (TAF)/emtricitabine + integrase inhibitor
- D) tenofovir (TDF)/emtricitabine + protease inhibitor

**PREVIEW QUESTION**

**4.13** 23-year-old HIV-negative man with an HIV+ partner on ART with HIV RNA suppressed below detection asks about starting pre-exposure prophylaxis (PrEP).

In addition to safer sex counseling, which of these do you recommend?

- A) Nothing – PrEP is not indicated.
- B) PrEP with tenofovir (TDF)/emtricitabine daily.
- C) PrEP with tenofovir (TAF)/emtricitabine “on demand”.
- D) PrEP with bictegravir/tenofovir (TAF)/emtricitabine daily.

**PREVIEW QUESTION**

**4.14** A 38-year-old woman with AML is admitted with fever. She underwent induction chemotherapy 2 weeks prior, complicated by neutropenic fever. Following marrow recovery, she was d/c to home.

The day of admit she developed fever without localizing symptoms. CBC showed a white blood cell count of 12,250 with 20% bands.

Exam: T 101.4; P 98, Otherwise unremarkable. Blood cultures were sent, and she was started on broad spectrum empiric antibiotics.

**PREVIEW QUESTION**

**4.14**

HD 2: Fever persists, with interval development of raised, red-purple, tender, non-pruritic papules and nodules on her face, neck and the dorsum of her hands.



**PREVIEW QUESTION**

**4.14**

HD 3: Fever persists; some of the papules develop a plaque-like appearance

HD 4: Skin biopsy: dense perivascular infiltrates of neutrophils without evidence of vasculitis; stains for organisms negative.



# 41 - Daily Question Preview: Day 4

Moderator: Roy Gulick, MD

## PREVIEW QUESTION

**4.14** Which is the most likely diagnosis?

- A) Ecthyma gangrenosum
- B) Pyoderma gangrenosum
- C) DRESS
- D) Leukemic infiltrates
- E) Sweet syndrome

## PREVIEW QUESTION

**4.15** 38-year-old male physician, previously healthy, with periodic travel to South Africa for medical research work.

Reports a positive TST six years ago, and admits poor adherence with a course of isoniazid preventive therapy at that time.

Now with 5 weeks of fever, chills, night sweats, 10-lb wt loss, productive cough. CXR shows RUL cavitary lesion. Sputum GeneXpert MTB/RIF test result is "MTB detected" and "Rifampin resistance not detected" (culture results pending).

HIV test is negative, liver chemistries are normal.

## PREVIEW QUESTION

**4.15** 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

## PREVIEW QUESTION

**4.16** 24-year-old from Zambia, in U.S. for community college, recently tested HIV-positive with CD4 400, not yet on ART.

He has a prominent anterior cervical lymph node but is otherwise well-appearing with normal BMI, normal liver and renal chemistries, and mild anemia.

Lymph node biopsy grows M. tuberculosis in culture.

## PREVIEW QUESTION

**4.16** What is the best course of action with respect to the timing of TB therapy and HIV therapy?

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

## PREVIEW QUESTION

**4.17** 24-year-old U.S. born male whose wife (with whom he lives) was recently diagnosed with smear-positive pulmonary TB.

During a contact investigation, the 24-year-old male had a strongly positive IGRA assay, and is referred to you.

He has no other known TB contact, and reports a negative TST years ago.

# 41 - Daily Question Preview: Day 4

Moderator: Roy Gulick, MD

## PREVIEW QUESTION

**4.17** What is the most appropriate next course of action?

- A) Start preventive therapy immediately using daily isoniazid
- B) Start preventive therapy immediately using weekly isoniazid plus rifapentine
- C) Repeat the IGRA assay
- D) Start INH/RIF/PZA/EMB immediately for active TB
- E) Obtain medical history, perform TB symptom review and CXR

## PREVIEW QUESTION

**4.18** 25-year-old black woman presents with fatigue.

- History of IV Heroin use; intermittently takes TDF/FTC PreP
- Exam no edema
- Work up in ER shows creatinine 8.4 BUN 79; mild anemia; mild acidemia
- In ER 10 weeks earlier; normal renal function
- U/A high grade proteinuria
- US of kidneys: Normal to increase size; no obstruction
- Rapid HIV test positive

## PREVIEW QUESTION

**4.18** Which of the following is the most likely cause of her renal failure?

- A) Volume depletion / ATN
- B) Heroin Associated Nephropathy
- C) HIVAN
- D) Membranous glomerulonephritis
- E) Tenofovir Toxicity (PrEP)