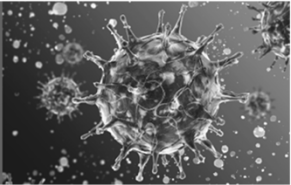


# QP1 – Question Preview: Day 1

Moderator: Henry Masur, MD

**IDBR**  
**INFECTIOUS DISEASE BOARD REVIEW**  
AUGUST 17-21, 2024



**Daily Question Preview: Day 1**  
Moderator: Henry Masur, MD

7/1/2024

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

**1.1** Which of the following will not grow on sheep blood, chocolate and/or MacConkey agar?

- A) *Granulicatella adiacens*
- B) *Bordetella pertussis*
- C) *Brucella melitensis*
- D) *Vibrio cholerae*
- E) *Abiotrophia defectiva*

1 of 2

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

**1.2** You are asked to see a 43-year-old woman to advise on management of a positive blood culture.

Gram stain of her blood culture bottle shows Gram-negative bacilli.

A rapid PCR panel performed on the positive blood culture bottle contents detects *Klebsiella pneumoniae* and *bla<sub>KPC</sub>*.

1 of 3

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

**1.2** The *bla<sub>KPC</sub>* gene product would be expected to confer resistance to which of the following?

- A) Cefepime
- B) Plazomicin
- C) Colistin
- D) Ceftazidime/avibactam

2 of 3

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

**1.3** A 47-year-old male with known HIV, poorly compliant with ARV, last CD4 20/mcl, presents with low grade fever and headache. Blood culture is growing a yeast, not yet identified.

Starting micafungin would be a poor choice if the isolate is which of the following:

- A) *Candida parapsilosis*
- B) *Cryptococcus gattii*
- C) *Candida auris*
- D) *Candida krusei*
- E) *Candida glabrata*

1 of 2

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

**1.4** A 37 yo female with diabetes mellitus is admitted for ketoacidosis, fever and sinus pain. Biopsy of a necrotic area of the middle turbinate shows wide, branching nonseptate hyphae. Serum creatinine is 2.5 mg/dl.

Which of the following would be most appropriate?

- A) Voriconazole
- B) Anidulafungin
- C) Fluconazole
- D) Liposomal amphotericin B
- E) Itraconazole

1 of 2

# QP1 – Question Preview: Day 1

Moderator: Henry Masur, MD

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

**1.5** An 18 year old high school student develops chills, fever, cough, myalgia in January. She is prescribed azithromycin, rest and NSAIDs. Fever and cough continue and she becomes progressively dyspneic and weak. On admission T39, P 150, RR 24-30, BP 120/50. She has crackles throughout both bases and a gallop. Influenza PCR positive  
WBC =9000/mm<sup>3</sup> (60% polys, 30% bands)  
Creatinine 1.9  
BNP and troponin markedly elevated  
CXR shows diffuse bilateral infiltrates and cardiomegaly  
Requires V-A ECMO

1 of 3

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

**1.5** What is the most likely cause of this influenza complication?

A) Pneumococcal pneumonia  
B) Staph aureus pneumonia with purulent pericarditis  
C) Influenza cardiomyopathy  
D) MIS-C due to recent SARS-CoV-2 infection  
E) Viral pericarditis with effusion

2 of 3

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

**1.6** A 32 year old nurse is 34 weeks pregnant during influenza season. She develops influenza symptoms and is seen at an instacare where a rapid test is positive and she is given azithromycin.  
72 hours after the onset she presents to the ED with fever, tachypnea, hypoxemia and decreased urine output.  
CXR shows bilateral hazy infiltrates. She is hospitalized.

1 of 3

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

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

A) She should get supportive care only since she has had symptoms for >48 hours  
B) Oseltamivir is relatively contraindicated in pregnancy  
C) Zanamivir is clearly preferred because of low systemic absorption  
D) Oseltamivir should be started as soon as possible

2 of 3

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

**1.7** 54 year old man with 4 weeks of cough, low grade fevers, & left-sided chest pain.  
Received a liver transplant 11 months ago, complicated by rejection, requiring high dose steroids 4 months ago.  
He receives TMP/SMX three times a week.  
On exam, he is stable, chronically-ill appearing, febrile (101.1°F), has clear lungs and benign abdomen.

1 of 5

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

**1.7** Labs reveal a normal white blood cell count, slight anemia, & normal creatinine.  
Chest radiograph reveals hazy opacity in left lower lung zone.  
Chest CT reveals nodular air-space consolidation in the left lower lobe with central cavitation (image).  
Gram stain of bronchoalveolar lavage fluid reveals beaded gram positive filamentous organisms (image).

2 of 5

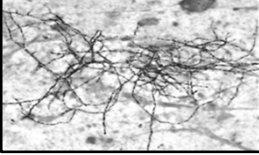
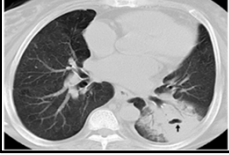
# QP1 – Question Preview: Day 1

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PREVIEW QUESTION **INFECTIOUS DISEASE BOARD REVIEW 2024**

1.7

Chest CTBAL



CT image from J. Bargehr, et al. *Clinical Radiology*, 2013-05-01, Volume 68, Issue 5, Pages e266-e271.  
Gram stain image from Murray, et al. *Medical Microbiology*, 7E, 2013 Saunders, Elsevier.

3 of 5

PREVIEW QUESTION **INFECTIOUS DISEASE BOARD REVIEW 2024**

1.7 What is the most likely cause of this patient's pneumonia?

- A) *Cryptococcus neoformans*
- B) *Histoplasma capsulatum*
- C) *Actinomyces israelii*
- D) *Nocardia farcinica*
- E) *Aspergillus fumigatus*

4 of 5

PREVIEW QUESTION **INFECTIOUS DISEASE BOARD REVIEW 2024**

1.8 A 62 yr old sheep rancher from Northern Australia referred hospitalized for refractory pneumonia that failed to respond completely to multiple, prolonged courses of antibiotics over 3 months, leaving him with continued low-grade fever, productive cough & asthenia.

Gram negative rods noted in moderate abundance on sputum Gram stain & in sputum culture. Identification by automated system failed & isolate sent to referral lab.

1 of 3

PREVIEW QUESTION **INFECTIOUS DISEASE BOARD REVIEW 2024**

1.8 Which of the following would have been a likely source of this infection?

- A) Hospital nebulizer while hospitalized in Australia (nosocomial superinfection)
- B) Water or soil from his ranch
- C) Coughing worker on his ranch
- D) Sick sheep on his ranch

2 of 3

PREVIEW QUESTION **INFECTIOUS DISEASE BOARD REVIEW 2024**

1.9 25 yr male presented in July with painful right inguinal mass of one week's duration. He is otherwise well. Married. Monogamous. No hx penile or skin lesion.

Fishing last week in Northern Virginia creek, hiked through wooded area. Picked ticks off legs & neck. Has kitten & dog.

1 of 4

PREVIEW QUESTION **INFECTIOUS DISEASE BOARD REVIEW 2024**

1.9 Exam: T37°C, 5 cm tender red mass in right midinguinal area, fixed to skin. Genitalia normal.

Aspiration of soft center: 5 cc yellow pus. Gm stain neg. cephalixin 250 mg qid.

One week later: mass unchanged. Culture neg. Syphilis FTA & HIV neg.

2 of 4

# QP1 – Question Preview: Day 1

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## PREVIEW QUESTION

INFECTIOUS DISEASE BOARD REVIEW 2024

1.9 Most likely dx:

- A) *Bartonella henselae*
- B) *Treponema pallidum*
- C) *Haemophilus ducreyi*
- D) *Francisella tularensis*
- E) *Klebsiella (Calymmatobacterium) granulomatis*

3 of 4

## PREVIEW QUESTION

INFECTIOUS DISEASE BOARD REVIEW 2024

1.10 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. 1<sup>st</sup> 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.

1 of 3

## PREVIEW QUESTION

INFECTIOUS DISEASE BOARD REVIEW 2024

1.10 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

2 of 3

## PREVIEW QUESTION

INFECTIOUS DISEASE BOARD REVIEW 2024

1.11 42 year old homeless male approaches a group of ID fellows attending ID Week in San Diego.

One fellow noticed jaundice and suggested he seek medical testing.

With what diagnosis was the fellow most concerned?

- A) HAV
- B) HBV
- C) Delta
- D) HCV
- E) HEV

1 of 2

## PREVIEW QUESTION

INFECTIOUS DISEASE BOARD REVIEW 2024

1.12 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.



1 of 3

## PREVIEW QUESTION

INFECTIOUS DISEASE BOARD REVIEW 2024

1.12 The most likely dx is:

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

2 of 3

# QP1 – Question Preview: Day 1

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## PREVIEW QUESTION

INFECTIOUS DISEASE BOARD REVIEW 2024

**1.13** 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.

1 of 3

## PREVIEW QUESTION

INFECTIOUS DISEASE BOARD REVIEW 2024

**1.13** What do you recommend?

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

2 of 3

## PREVIEW QUESTION

INFECTIOUS DISEASE BOARD REVIEW 2024

**1.14** A 25-year-old woman complains of 6 weeks of symptoms consistent with dyspepsia unrelieved by current use of antacids & an OTC PPI.

The best approach to the diagnosis of *H. pylori* infection in this patient is:

- A) Immediate Hp serology
- B) Immediate Hp stool antigen EIA
- C) Endoscopy with rapid urease test (RUT)
- D) Immediate <sup>13</sup>C Urea Breath Test
- E) D/C PPI for 2 weeks then Hp stool antigen EIA

1 of 2

## PREVIEW QUESTION

INFECTIOUS DISEASE BOARD REVIEW 2024

**1.15** 67 year old woman develops diarrhea while hospitalized for community acquired pneumonia.

She is afebrile, WBC count is 12,000/ml, creatinine is 1.2 mg/dl (baseline 1.0 mg/dl) and she is experiencing 12 small loose stools daily with abdominal cramping.

Stool PCR is positive for *C. difficile* toxin B.

1 of 3

## PREVIEW QUESTION

INFECTIOUS DISEASE BOARD REVIEW 2024

**1.15** Which of the following therapies is recommended?

- A) Metronidazole 500 mg po TID x 10 days
- B) Vancomycin 500 mg PO qid x 10 days
- C) Fidaxomicin 200 mg PO BID x 10 days
- D) Bezlotoxumab + vancomycin x 10 days
- E) Fidaxomicin 200 mg PO BID + metronidazole 500 mg PO TID x 10 days

2 of 3