

03 – Daily Question Preview: Day 1

Moderator: Henry Masur, MD



Daily Question Preview: Day 1

Moderator: Henry Masur, MD, FIDSA, MACP




1.1 The image shows *Staphylococcus aureus* grown with an erythromycin disc (left) and a clindamycin disc (right).

Which of the following is the correct interpretation of these results?

- A) Erythromycin susceptibility, inducible clindamycin resistance
- B) Erythromycin resistance, constitutive clindamycin resistance
- C) Erythromycin resistance, inducible clindamycin resistance
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INFECTION DISEASE BOARD REVIEW
THE GREAT NORTHWESTERN
MEMORIAL HOSPITAL
JULY 2021

PREVIEW QUESTION

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INFECTION DISEASE BOARD REVIEW
THE GREAT NORTHWESTERN
MEMORIAL HOSPITAL
JULY 2021



PREVIEW QUESTION

1.2 60-year-old female smoker, admitted, intubated, and ventilated due to severe COPD with Acute Respiratory Failure.

- Chest X-Ray: New bibasilar infiltrates and Emphysema
- Empiric ceftriaxone and azithromycin
- Sputum positive for both rhinovirus and *Klebsiella pneumoniae* resistant to both ceftriaxone and azithromycin
- Also “Resistant” to: all fluoroquinolones, aminoglycosides, pip/tazo, and all carbapenems

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PREVIEW QUESTION

1.2 Which one of the following antibiotics is most likely to have activity vs. this KPC infection?

- A) Tigecycline
- B) Ceftazidime-avibactam
- C) Aztreonam
- D) Ceftolozane-tazobactam




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INFECTIOUS DISEASE BOARD REVIEW
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PREVIEW QUESTION

1.3 40-year-old surgeon has surgical repair of torn anterior cruciate ligament of his knee. A single dose of cefazolin was given as a prophylactic antibiotic.

- Three days post-op: Purulent knee exudate. GNB on gram stain. Ceftriaxone (CTX) started
- Five days post-op: Growing *Klebsiella (Enterobacter) aerogenes* suscept. To CTX
- Ten days post-op: Knee still inflamed. Repeat culture: *K.(E.) aerogenes* resistant to CTX



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PREVIEW QUESTION

1.3 Which one of the following is the most likely explanation of the *Klebsiella(E.) aerogenes* resistance to ceftriaxone?

- A) Spontaneous Mutation in Cephalosporin cell membrane binding protein
- B) Activation of a Cephalosporin efflux pump
- C) Activation of an inducible chromosomal cephalosporinase
- D) Expression of constitutive plasmid cephalosporinase

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INFECTIOUS DISEASE BOARD REVIEW
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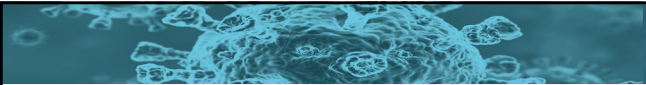
PREVIEW QUESTION

1.4 What is the only cephalosporin active against MRSA

- A) Cefpodoxime
- B) Cefapime
- C) Ceftaroline
- D) Cefixime
- E) Cefoxitin

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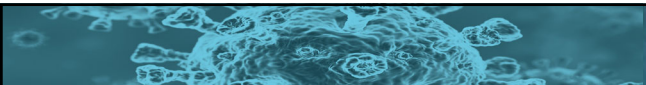


INFECTION DISEASE BOARD REVIEW
TENTH EDITION, 2021

PREVIEW QUESTION

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INFECTION DISEASE BOARD REVIEW
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PREVIEW QUESTION

1.5 Which quinolone has activity against MRSA

- A) Ciprofloxacin
- B) Moxifloxacin
- C) Trovafloxacin
- D) Delafloxacin
- E) Levofloxacin

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INFECTION DISEASE BOARD REVIEW
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PREVIEW QUESTION

1.6 What is the major advantage of tedizolid compared to linezolid:

- A) Longer half life
- B) Better penetration of prostate
- C) Better CSF Penetration
- D) Wide spectrum of activity against anaerobes
- E) More effective in clinical studies for VRE

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INFECTION DISEASE BOARD REVIEW
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JULY 2021


PREVIEW QUESTION

1.7 In *Staphylococcus aureus*, the protein encoded by the *mecA* gene is which of the following:

- A) Leukocidin
- B) PBP 2a
- C) Oxacillinase
- D) IL28 TT
- E) ESBL

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INFECTION DISEASE BOARD REVIEW
MAY 2021

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INFECTION DISEASE BOARD REVIEW
MAY 2021


PREVIEW QUESTION

1.8 Which of the following would be the best choice, among the drugs listed, to treat MSSA bacteremia:

- A) Doripenem
- B) Imipenem
- C) Ceftriaxone
- D) Cefazolin
- E) Aztreonam

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INFECTION DISEASE BOARD REVIEW
THE INFECTION CASE
Q3 2021

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INFECTION DISEASE BOARD REVIEW
THE INFECTION CASE
Q3 2021


PREVIEW QUESTION

1.9 What is the mechanism of action for vancomycin resistance for *Staphylococcus aureus*

- A) Mec A
- B) Efflux pump
- C) Change in vancomycin binding site on peptidoglycan
- D) Porin

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INFECTION DISEASE BOARD REVIEW
TWENTY-NINTH EDITION
DE 2021

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INFECTION DISEASE BOARD REVIEW
TWENTY-NINTH EDITION
DE 2021



PREVIEW QUESTION

1.10 Eosinophilic pneumonia is a complication of which of the following:

- A) Ceftaroline
- B) Delafloxacin
- C) Doripenem
- D) Daptomycin
- E) Linezolid

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PREVIEW QUESTION

1.11 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.

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INFECTION DISEASE BOARD REVIEW
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JULY 2021

PREVIEW QUESTION

1.11 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*



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INFECTION DISEASE BOARD REVIEW
TENTH EDITION, 2021

PREVIEW QUESTION

1.12 The image shows *Staphylococcus aureus* grown with an erythromycin disc (left) and a clindamycin disc (right).



INFECTION DISEASE BOARD REVIEW
TENTH EDITION, 2021


PREVIEW QUESTION

1.12 Echinocandin class of antifungals has which mechanism of action:

- A) Inhibits synthesis of membrane sterols
- B) Damages cytoplasmic membrane
- C) Interferes with synthesis of fungal cell wall glucans
- D) Inhibits fungal DNA synthesis
- E) Interfere with synthesis of fungal cell wall chitin

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INFECTION DISEASE BOARD REVIEW
THE INFECTION CASE OF THE MONTH
JULY 2021

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INFECTION DISEASE BOARD REVIEW
THE INFECTION CASE OF THE MONTH
JULY 2021

PREVIEW QUESTION


1.13 A 37-year-old 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.

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INFECTIOUS DISEASE BOARD REVIEW
TENTH EDITION, 2021

PREVIEW QUESTION

1.13 Which of the following would be most appropriate?

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



INFECTIOUS DISEASE BOARD REVIEW
TENTH EDITION, 2021


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INFECTION DISEASE BOARD REVIEW
THE GREAT NORTHWEST
ID 2021

PREVIEW QUESTION

1.14 72-year-old female with chronic cough, normal CXR, and 1/3 sputums grow MAC. Which one of the following you do 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



INFECTION DISEASE BOARD REVIEW
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PREVIEW QUESTION

1.15 A 50-year-old female alcoholic suffered a provoked dog bite. Bite was cleansed, tetanus toxoid given, and the dog placed under observation.

Patient is post-elective splenectomy for ITP; she received pneumococcal vaccine one year ago.

One day later, the patient is admitted to the ICU in septic shock with severe DIC and peripheral symmetric gangrene of the tips of her fingers/toes.




PREVIEW QUESTION

1.15 Which one of the following is the most likely etiologic bacteria?

- A) *Pasteurella canis*
- B) *Capnocytophaga canimorsus*
- C) *Fusobacterium* sp.
- D) *Bartonella henselae*

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INFECTION DISEASE BOARD REVIEW
THE GREAT NORTHWESTERN
MAY 2021

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INFECTION DISEASE BOARD REVIEW
THE GREAT NORTHWESTERN
MAY 2021

PREVIEW QUESTION

1.16 A 35-year-old male suffers a clenched fist injury in a barroom brawl.


He presents 18 hours later with fever and a tender, red, warm fist wound.

Gram stain of bloody exudate shows a small gram-negative rod with some coccobacillary forms.

The aerobic culture is positive for viridans streptococci.

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INFECTION DISEASE BOARD REVIEW
THE 2021 BOARD REVIEW
10 2021

PREVIEW QUESTION

1.16 Which one of the following organisms is the likely etiologic agent?

- A) Streptococci
- B) *Eikenella corrodens*
- C) Peptostreptococcus
- D) *Fusobacterium* species



INFECTION DISEASE BOARD REVIEW
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