

### Infectious Diseases Questions

1. A patient with HIV is on didanosine, zidovudine and ritonavir. He has developed a hump over the back of his neck. A random BSL is 11mmol/l. What is the most likely explanation for his hump?



- A. Opportunistic infection
  - B. Cushing's disease
  - C. Direct effect of HIV
  - D. Cushing's syndrome
  - E. Drug toxicity
  - F. Pub.
2. A patient is found to have community acquired pneumonia due to *Strep. Pneumoniae*. The minimum inhibitory concentration of penicillin is  $>1.0$ . What is the best treatment?

- A. Imipenem
- B. Bactrim
- C. High dose penicilline
- D. Ceftriaxone
- E. Vancomycin plus rifampicin

Need better range.  
? intermediate or  
high dose penicillin.

3. What is the commonest cause of hospital acquired pneumonia?

- A. Viruses
- B. Legionella

- C. Gram positive cocci *\*accq to lecturer.*
- D. Gram negative rods
- E. Anaerobes

4. A 70 year old man presents with haemoptysis, cough and right upper lobe consolidation on his chest x-ray. What is the next best investigation?

- A. Bronchoscopy and biopsy *→ don't want to expose staff to TB!!*
- B. ZN staining on sputum *\**
- C. CT chest
- D. Bronchial lavage
- E. Mantoux test *→ sick, will be allergic*

5. A 22 year old woman presents with a 2 week history of fevers and malaise, and on examination is found to have cervical lymphadenopathy. There is no evidence of hepatosplenomegaly. Initial investigation with heterophile antibodies is negative. When this test is repeated 2 weeks later it is still negative.

What is the most likely diagnosis?

- A. EBV *\* Monospot can be @n adults.*
- B. CMV *If EIGM → CMV  
if kid → CMV  
if kid (day 1-3) → EBV  
childcare worker → CMV*
- C. HIV seroconversion illness
- D. Toxoplasmosis
- E. Streptococcal pharyngitis

6. An HIV positive man presents with odynophagia. An endoscopy is performed which reveals diffuse white plaques over the mucosa of the oesophagus. A biopsy reveals numerous hyphae. What is the best oral treatment for this condition?

- A. Nystatin
- B. Fluconazole *→ if resistant ketoconazole.  
candida or CMV or herpes*
- C. Acyclovir
- D. Acyclovir and fluconazole
- E. Amphotericin *\* unless you know it is candida albicans  
lifysystemic \*\**

7. A 68 year old man presents with cough and dyspnoea. A CXR shows a right upper lobe cavity. Sputum is positive for acid fast bacilli on ZN staining and he is placed in an isolation room. He is commenced on anti tuberculous therapy. How long will he need to remain in isolation?

- A. 2-3 weeks
- B. Until he has commenced anti tuberculous therapy
- C. Until his sputum is culture negative *\* accq to lecturer.*
- D. Until his sputum is smear negative
- E. 3-4 weeks

8. A 44 year old man with HIV presents for regular review. His seroconversion illness was 7 years ago. He has not been on any therapy. He has a CD4+ count of 560. His viral load is undetectable. What is the most appropriate therapy?

- A. Zidovudine and didanosine
- B. Zidovudine, didanosine and indinavir
- C. No therapy
- D. Bactrim prophylaxis
- E. Gancyclovir prophylaxis

9. A 25 year old man presents with dysuria and a urethral discharge. He has recently returned from a holiday in Bangkok. Gram stain reveals intracellular diplococci. What is the best treatment?

- A. Ceftriaxone 250mg IM as a single dose
- B. Ampicillin 250mg bd and probenecid orally
- C. Azithromycin 1g orally and ciprofloxacin 500mg oral stat
- D. Azithromycin 1g orally and amoxicillin 3g stat and probenecid
- E. Amoxicillin 500mg bd and doxycycline 50mg daily for 7 days

↑ compliance

10. A middle aged woman is found to have a perforated diverticulum. She has a laparotomy and washout. Culture of the washout fluid grew Enterobacter, which was sensitive to ceftriaxone. She was treated with ceftriaxone and metronidazole for 3 days, but with no improvement. She has a fever and repeat blood cultures are taken. A CT scan of her abdomen is done and this fails to demonstrate any evidence of a collection. The blood cultures are also positive for Enterobacter. What is the most appropriate next step?

- A. Continue current treatment
- B. Repeat laparotomy
- C. Cease ceftriaxone and start ampicillin and gentamicin
- D. Cease ceftriaxone and start meropenem
- E. Add vancomycin to the current treatment regimen

no anaerobic cover  
penetrates  
washout  
& enterobacter  
no surgery

11. 24 year old man has recently been holidaying in Africa. While he was there he was taking mefloquine prophylaxis. He stopped taking it 2 weeks after returning to Australia. He now presents with fever and a blood film which shows lots of plasmodium vivax. What would be the best treatment for him?

- A. Chloroquine and doxycycline
- B. Chloroquine for three days and 14 days of primaquine
- C. Doxycycline
- D. One day mefloquine and 14 days primaquine
- E. IV quinine and primaquine

eradication

12. Which of the following antibiotics has the least activity against anaerobes?

- A. Ceftriaxone
- B. Chloramphenicol
- C. Piperacillin and clavulanic acid
- D. Metronidazole
- E. Clindamycin

used for brain abscesses.  
/ Ticlopidin too.  
also impenem / meropenem.

13. Regarding neuramidase inhibitors (such as zanamivir), and influenza – which best describes their action if commenced within 48 hours of the illness?

- A. They shorten the duration of illness
- B. They shorten the duration and the severity of the illness
- C. They reduce the severity of the illness but have no effect on duration
- D. They reduce the likelihood of hospital admission
- E. They can be used as prophylaxis for individuals at high risk of exposure

some people only.

→ recall data.

14. There is a patient in a shared ward with vancomycin resistant enterococci growing from their wound site. What is the best way to determine whether any of the other patients on the ward have been infected with this mans VRE?

- A. Speciation
- B. PCR for Van A and Van B
- C. Antibiotic susceptibilities and gram staining
- D. Daily faecal culture from all patients in the same ward
- E. Nasal swabs and culture of all patients and staff on the ward

gallinamycin doesn't matter.  
look for faecalib v. faecium.

→ DENIT SCREEN

HOSE ON V6 MRSA

RECALL USE THIS FOR SCREENING

15. What is the mechanism of resistance in Penicillin resistant pneumococci?

- A. Plasmid mediated resistance
- B. Beta lactamase enzyme production
- C. Alteration of the penicillin binding proteins
- D. Chromosomal mediated resistance
- E. Change in structure of the penicillin itself

16. What is the reason for only giving a single stat dose of azithromycin in the treatment of Chlamydia trachomatis?

- A. Highly susceptible organism which is readily killed
- B. Long extracellular half life of drug
- C. Long intracellular half life of drug
- D. Toxic liver damage is more likely with daily dosing regimens
- E. More regular dosing promotes rapid development of resistant organisms

17. What are the most important pharmacological parameters in the prescribing of beta lactams?

Only valid answer on bagel & ceftriaxone

- A. Plasma concentration/MIC ratio
- B. Area under the curve (AUC) analysis
- C. AUC/MIC ratio
- D. Time above MIC
- E. Both AUC/MIC and concentration/MIC ratio

*2 aminoglycoside*