



Cert ID(SA) Phys

## THE COLLEGES OF MEDICINE OF SOUTH AFRICA

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Examination for the Subspecialty Certificate in Infectious Diseases of the  
College of Physicians of South Africa

24 March 2011

1 Paper Only

(3 hours)

*All questions are to be answered. Each question to be answered in a separate book (or books if more than one is required for the one answer)*

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- 1 You are requested to set up a surveillance system for healthcare-associated infections (HCAs) in your hospital.
  - a) Discuss the differences between, as well as the advantages and disadvantages of
    - i) Site-targeted and unit-targeted surveillance. (3)
    - ii) HCAI incidence and prevalence surveillance surveys. (3)
  - b) Describe fully how you would proceed with the implementation of a surveillance system. (9)

[15]
  
- 2 A 28-year-old man is admitted to a tertiary care hospital in Johannesburg with encephalitis. There is a history of being scratched on the neck by the neighbour's puppy 4 weeks before. The puppy subsequently disappeared. The patient has spasms with intervening periods of lucidity and hydrophobia. Rabies is suspected in the light of the animal exposure and the reported outbreak of dog rabies in the Johannesburg Metro
  - a) Discuss what laboratory tests should be done and expected findings. (5)
  - b) Detail how this disease may have been prevented in this patient. (5)
  - c) Discuss management of this patient. (5)

[15]
  
- 3 With regards to non-tuberculous mycobacterial (NTM) lung infections
  - a) What is the most likely route of transmission? (1)
  - b) Which three species are most commonly associated with lung disease? (3)
  - c) Discuss three groups of patients who typically present with NTM lung infections and their respective clinical presentations. (6)
  - d) Discuss current criteria for the diagnosis of NTM lung infection and highlight the difficulties in deciding on treatment initiation. (5)

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- 4 Write short notes on the therapeutic use and important toxicity of the following antimicrobial drugs
  - a) Tigecycline. (5)
  - b) Colistin. (5)
  - c) Voriconazole. (5)

[15]
  
- 5 a) You have been asked for advice on isoniazid preventive therapy (IPT) for HIV-infected adults in southern Africa. Discuss the pros and cons of IPT. Provide some guidelines on implementation of IPT. (10)

- b) Write short notes on the following new diagnostic tests for tuberculosis, including in your answer reference to the method employed, sensitivity and specificity.
- i) Point-of-care rapid molecular test (Gene Xpert MTB/Rif) on sputum. (6)
  - ii) Urinary lipoarabinomannan. (4)
- [20]
- 6 a) A 35-year-old man is referred from a primary care clinic for an opinion. He is being worked up to initiate ART and he has been found to have an ALT of 168 U/L (normal 0-40 U/L). His CD4 count is 144 cells/mm<sup>3</sup>. His initial work-up shows that he is HBcIgG positive, HBsAg and HBsAb negative. Hepatitis C serology and PCR are positive and his INR is 2.5. Discuss the management of this patient. (15)
- b) A 32-year-old HBsAg-negative man is referred from a private clinic having been on didanosine, lamivudine and lopinavir/ritonavir for 3 years with good response. His LFTs have always been normal (last taken 6 months previously) and he is now found to have an ALT 168 U/L, GGT twice normal and a normal bilirubin. Write short notes on the possible causes of liver dysfunction in this patient. (5)
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