Invasive fungal infections

1 Moulds:
   a) Can reproduce sexually or asexually
   b) Are used to make alcoholic beverages
   c) Include Aspergillus spp and Penicillium spp
   d) Generally can be treated with voriconazole
   e) Are unicellular organisms

2 Patients at high risk of invasive fungal infections include those with:
   a) HIV
   b) A lung transplant
   c) Acute myeloid leukaemia
   d) A kidney transplant
   e) An autologous stem cell transplant

3 Concerning Candida spp:
   a) Candida glabrata is the most commonly isolated organism
   b) They are a common cause of infections on intensive care wards
   c) They are usually sensitive to caspofungin
   d) The echinocandins are generally thought to be fungistatic against them
   e) Commonly causes meningitis in HIV positive patients

4 Regarding the mode of action of antifungals:
   a) Azoles inhibit lanosterol synthesis
   b) Nikkomycins inhibit the synthesis of cell wall chitin
   c) Echinocandins inhibit the synthesis of an essential component of the cell wall
   d) Amphotericin inhibits DNA/RNA synthesis in the nucleus
   e) Flucytosine is a competitive inhibitor of uracil metabolism

5 Aspergillus:
   a) Fumigatus is the most commonly isolated Aspergillus species
   b) Infections are a particular problem for patients undergoing allogeneic stem cell transplant
   c) Spores enter the body via the respiratory tract
   d) Species are always sensitive to fluconazole
   e) Infections are not a concern for patients who have had a lung transplant

6 Concerning Cryptococcus spp:
   a) Cryptococcal meningitis is treated with a combination of amphotericin and flucytosine
   b) C neoformans is commonly found in pigeon droppings
   c) C neoformans is sensitive to the echinocandins
   d) They are moulds
   e) They can cause a pulmonary syndrome that includes cough and pulmonary infiltrates

7 Amphotericin:
   a) Should always be prescribed by brand name
   b) Commonly causes hyperkalaemia
   c) In lipid formulations tends to cause less renal toxicity than the conventional formulation
   d) Doses are the same for the lipid and conventional formulations
   e) Has no activity against Candida spp

8 Regarding the administration of antifungals:
   a) The absorption of fluconazole is increased by a high-fat meal
   b) A test dose of amphotericin should be given before administering the first dose
   c) Itraconazole oral liquid should be taken on an empty stomach
   d) A loading dose is recommended for caspofungin
   e) Flucytosine is best used as monotherapy

9 Concerning future therapies for invasive fungal infections:
   a) There are no new azole antifungals in development
   b) Aminocandin has a long half-life, which might allow it to be dosed less often than once a day
   c) Synergistic activity against Cryptococcus spp has been observed when nikkomycin Z is combined with fluconazole in vitro
   d) Liposomal nystatin is currently undergoing clinical trials
   e) No clinical data on the use of amphotericin hydrosomes have been published to date

10 The antifungal:
   a) Flucytosine does not cross the blood-brain barrier
   b) Posaconazole is available in an IV formulation
   c) Anidulafungin has no clinically significant drug interactions
   d) Flucytosine can cause haematological disturbances
   e) Voriconazole has good penetration into the central nervous system