

# **CPD QUESTIONNAIRE**

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#### Two CPD points are awarded for the correct completion and submission of the questions below.

CPD questionnaires must be completed online via www.cpdjournals.co.za. After submission, you can check the answers and print your certificate.

This programme is available free of charge to members of the HIV Clinicians Society and SAMA only.

#### TRUE (A) or FALSE (B) - click on the correct answer:

#### Regarding levels of soluble inflammatory markers in HIV infection

- 1. The kidneys are the major source of increased levels of procalcitonin during acute infection.
- 2. Levels of C-reactive protein may be used to distinguish bacterial from viral infections.
- 3. Neopterin is produced by macrophages and is a marker of cell-mediated immunity.
- 4. Levels of neopterin may be lower in individuals with untreated HIV infection, compared with individuals on antiretroviral therapy.

### Regarding reliability of CD4 cell count enumeration

- 5. CD4 cell counts vary naturally according to the time of day (diurnal variation) and by the site of phlebotomy.
- 6. The time delay between phlebotomy and laboratory testing can influence CD4 cell count results, and the World Health Organization recommends conducting tests within 72 hours of specimen collection.
- 7. Data from Swaziland show that there is variability in CD4 count results within and between laboratories; this variability may lead to incorrect decisions to initiate antiretroviral therapy in up to 20% of patients.

## Regarding tumour necrosis factor-alpha

- 8. High levels of TNF-alpha may help to reduce HIV viral replication.
- 9. TNF-alpha levels may be increased in individuals with particular genetic variations, such as -308 TNF-alpha polymorphisms.
- 10. There is clear evidence that -308 TNF-alpha polymorphisms occur more commonly in HIV-infected individuals than uninfected individuals.

# Regarding cytomegalovirus (CMV) retinitis

11. Intravitrial gancyclovir injections are the gold-standard for managing CMV retinitis.

- 12. With management through gancyclovir injections and antiretroviral therapy, the vast majority of patients with visual loss due to CMV-retinitis will regain normal visual function
- 13. CMV disease in the retina occurs early in the course of HIV disease, and the incidence of CMV-retinitis is not affected by use of antiretroviral therapy.

#### Regarding pneumocystis pneumonia

- 14. Patients with pneumocystis pneumonia who require mechanical ventilation have a high risk of mortality.
- 15. Lung fibrosis may help to explain the poor prognosis of patients with pneumocystis pneumonia who require ventilation.
- 16. Pneumocystic jirovecii is universally sensitive to trimethoprim-sulfamethoxazole, and antibiotic resistance is unknown.

#### Regarding anaemia in the context of HIV infection

17. Bone marrow infiltration from AIDS-related conditions is common in advanced, untreated HIV; this may be evidenced by a pancytopaenia, or an anaemia with minimal reticulocyte production.

## Regarding pre-exposure prophylaxis to prevent HIV infection

- 18. Use of tenofovir or Truvada for PrEP requires monitoring of renal function and annual bone mineral density scanning in all individuals (e.g. DEXA).
- 19. Real-world adherence to PrEP regimens is a critical determinant of their effectiveness in preventing HIV infection, and ongoing adherence counseling is required.
- 20. Careful consideration needs to be given to drug-drug interactions in PrEP, as tenofovir may interact with cimetidine, metformin and some aminoglycosides.