

# June 2008 – Malaria

CPD questionnaires must be completed online via [www.cpdjournals.org.za](http://www.cpdjournals.org.za). After submission you can check the answers and print your certificate. Questions may be answered up to 6 months after publication of each issue.

## PREVENTION AND TREATMENT OF MALARIA IN HIV-INFECTED PATIENTS

1. Which one of the following statements is incorrect with regard to HIV-infected individuals in South Africa?
  - A. There is an increased risk of severe malaria in adults
  - B. There is an increased risk of severe malaria in children
  - C. Patients may experience a decrease in CD4 count during acute malaria infection
  - D. Patients may experience an increase in HIV viral load during acute malaria infection
  - E. Chemoprophylaxis should be used instead of personal protective measures (to avoid mosquito bites) when travelling to malaria-endemic areas.
2. The recommended antimalarial chemoprophylaxis for HIV-infected non-pregnant adult travellers to malaria areas in South Africa is (choose one):
  - A. Sulfadoxine-pyrimethamine (Fansidar)
  - B. Chloroquine plus proguanil
  - C. Mefloquine
  - D. Atovaquone-proguanil
  - E. Doxycycline.
3. True (A) or false (B) – fill in only block A or B:  
The clinical presentation of malaria may mimic many other opportunistic infections in HIV-infected individuals.

## THE 'WHERE, WHEN AND WHO' OF PREVENTING MALARIA IN TRAVELLERS

4. Which one of the following should be recommended for chemoprophylaxis for a traveller going to a high-risk malaria area in 2 days' time?
  - A. Chloroquine, taken once weekly
  - B. Doxycycline or atovaquone-proguanil, taken daily
  - C. A homeopathic medication containing artemisinin, taken daily
  - D. Measures to prevent mosquito bites only
  - E. Mefloquine, taken once weekly.
5. Regarding advice that should be given to travellers going to an area where the risk of malaria is high, select the most correct statement:
  - A. Apply an insect repellent from dawn to dusk as this is when the *Anopheles* mosquito bites
  - B. You can stop taking the antimalarial when you get back if you were not bitten by a mosquito
  - C. Mefloquine and doxycycline must be taken for 4 weeks after returning from the malaria area
  - D. There are no contraindications for taking atovaquone-proguanil
  - E. Pregnant women going to malaria areas should not take any chemoprophylaxis.
6. True (A) or false (B) – fill in only block A or B:  
If a traveller presents with flu-like symptoms 10 days after entering a malaria area, one need not suspect malaria.

## MANAGEMENT OF UNCOMPLICATED MALARIA

7. With regard to malaria diagnosis (choose one correct answer):
  - A. The clinical diagnosis is highly specific
  - B. Results of malaria smears are urgent
  - C. A negative smear excludes the diagnosis
  - D. A rapid test is useful in monitoring treatment response
  - E. A thick smear is useful in determining species of *Plasmodium*.
8. What initial treatment should be given to a 25-year-old man with falciparum malaria (5% parasitaemia), vomiting and jaundice (choose one correct answer):
  - A. Artemether-lumefantrine (Coartem)
  - B. Intravenous quinine
  - C. Oral quinine
  - D. Sulfadoxine-pyrimethamine (Fansidar)
  - E. Chloroquine.
9. With regard to artemether-lumefantrine (Coartem) (choose one correct answer):
  - A. Drug resistance to the artemisinins is widespread
  - B. Co-administration with fat will decrease absorption of the lumefantrine

- C. Coartem is indicated for patients with cerebral malaria
- D. Coartem is the drug of choice in pregnant women with malaria
- E. Coartem is the drug of choice for uncomplicated malaria in South Africa.

## SEVERE MALARIA

10. True (A) or false (B) – fill in only block A or B:  
In patients without malaria immunity asymptomatic parasitaemia does not occur.
11. True (A) or false (B) – fill in only block A or B:  
Excessive fluid resuscitation in severe malaria can lead to unmasking or development of adult respiratory distress syndrome.
12. True (A) or false (B) – fill in only block A or B:  
Broad-spectrum antibiotics should be given to all patients with severe malaria because concomitant bacteraemia can occur.

## MALARIA RAPID DIAGNOSTIC TESTS: A REVOLUTION AND CHALLENGE FOR MANAGEMENT OF FEBRILE DISEASE

13. Choose the most correct statement regarding malaria rapid diagnostic tests (RDTs):
  - A. RDTs do not require end-user training
  - B. RDTs do not vary in quality and sensitivity
  - C. RDTs can be used to monitor drug efficacy
  - D. RDTs do not deteriorate with high humidity and temperature
  - E. RDTs are less sensitive for detecting non-falciparum than falciparum malaria.
14. True (A) or false (B) – fill in only block A or B:  
HRP2-based RDTs only detect *Plasmodium falciparum*.

## CONTROLLING MALARIA IN SOUTHERN AFRICA

15. True (A) or false (B) – fill in only block A or B:  
New insecticide-treated bednets can remain effective for up to 5 years.
16. True (A) or false (B) – fill in only block A or B:  
Gametocytes perpetuate the transmission of malaria and delay in diagnosis and so treatment will increase gametocyte carriage and transmission.

## SEVERE MALARIA: A CASE OF TOO LITTLE TOO LATE

17. True (A) or false (B) – fill in only block A or B:  
Intravenous quinine is the treatment of choice for severe malaria.
18. True (A) or false (B) – fill in only block A or B:  
Admission tests should include a full blood count, malaria smear, urea and electrolytes, random blood glucose and urine dipstick tests. Additional tests may be warranted (e.g. liver function, HIV and pregnancy tests) depending on signs and symptoms present.

## INTERACTIONS BETWEEN MALARIA PROPHYLAXIS AND OTHER DRUG TREATMENT

19. The safest malaria prophylaxis for a person whose ECG shows a prolonged QT interval is (choose one):
  - A. Mefloquine
  - B. Atovaquone/proguanil
  - C. Doxycycline
  - D. Chloroquine
  - E. Amoxicillin.
20. Which one of the following would be the most appropriate warning when giving doxycycline or atovaquone/proguanil to a patient on warfarin:
  - A. Watch out for any drug interaction
  - B. These combinations are contraindicated and should not be given
  - C. The patient should be monitored for malaria prophylaxis efficacy
  - D. The patient's INR should be closely monitored on initiation and termination of malaria prophylaxis
  - E. The dose of the malaria prophylaxis should be doubled.

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