## 2 ZOONOTIC AND VECTOR-BORNE DISEASES

### b Malaria

An increase in both local (from malaria-endemic areas in South Africa) and imported (from other malaria-endemic countries) cases can be expected over the upcoming holiday season, as the malaria season in southern Africa is from September to May each year. There should be a high index of suspicion for malaria as the cause of acute febrile illness in all residents of areas with local transmission, and in all returning travellers from these areas. Diagnostic tests for malaria should be done urgently since prompt and appropriate management is critical to improving patient outcomes. Delays in diagnosis, misdiagnosis (most commonly as influenza), and delayed treatment are the most common factors associated with adverse outcomes.

The majority of travel-related malaria is seen in persons returning to South Africa from Mozambique. This is a reflection of the large numbers of visitors to Mozambique, and also of the significant malaria risk in Mozambique (particularly in areas north of Maputo) at this time of the year. Malaria is endemic in three South African provinces: Limpopo, Mpumalanga, and north-eastern KwaZulu-Natal. Travellers to malaria-endemic areas within South Africa or other malaria-endemic countries in southern Africa (notably Mozambique) need to take appropriate preventative measures. Mefloquine (Lariam®, Mefliam®), doxycycline, and atovaquone-proguanil (Malanil®) are recommended chemoprophylactic agents for southern Africa where chemoprophylaxis is indicated, and the choice of agent needs to be individualised. For advice on preventive measures, access the following link: http://www.doh.gov.za/docs/policy/2011/malaria_prevention.pdf.

Healthcare workers, especially those in non-endemic areas, must ensure that any case of malaria is notified. The South African national guidelines recommend the use of artemether–lumefantrine (Coartem®) or quinine plus doxycycline/clindamycin for uncomplicated falciparum malaria. Severe falciparum malaria is treated using quinine plus doxycycline/clindamycin or intravenous artesunate where available. An initial loading dose of 20 mg/kg of quinine is required for all cases of severe malaria to rapidly reach a therapeutic level. Chloroquine and sulphadoxine-pyrimethamine are not to be used in the treatment of falciparum malaria due to high-level resistance. Non-falciparum malarial infections are less common in sub-Saharan Africa; artemether-lumefantrine or quinine as above can be used for treatment of acute non-falciparum malarial illness. Chloroquine should only be used if there is reliable laboratory confirmation of non-falciparum species. The addition of primaquine to the above initial treatment is indicated for *Plasmodium ovale* or *P. vivax* infections to prevent relapse. The South African malaria treatment guidelines can be accessed through the following link: http://www.doh.gov.za/docs/policy/2011/malaria_treatment.pdf

**Source:** Division of Public Health Surveillance and Response, NICD-NHLS