

## Dengue fever

### Dengue fever in Zanzibar (Tanzania)

Dengue fever has been confirmed in European travellers returning from Zanzibar (Tanzania). The first dengue fever cases in Tanzania were reported in June 2010 in Dar es Salaam, and sporadic cases and clusters continue to be reported in that city. Zanzibar has not previously been regarded as a dengue fever risk area, and is a popular tourist destination, so many travellers are potentially at risk for infection.

### Dengue fever outbreak in northern Mozambique

An outbreak of dengue fever has been confirmed in Pemba, a port city situated in the northern province of Cabo Delgado. Pemba is a popular tourist destination for water sports and diving enthusiasts. Thirty cases have been confirmed by laboratory testing since late March 2014, but the true extent of the outbreak is not known. The NICD has provided support to Mozambican health authorities for the laboratory testing of cases, and has identified dengue virus type 2 as being responsible for the outbreak. Dengue has not been reported from Mozambique since the mid-1980s when an outbreak was associated with dengue virus type 3. The current outbreak is reportedly attributed to exceptionally high rainfall that supported the proliferation of mosquito vectors.

### Discussion

Dengue fever is widespread in sub-Saharan Africa and local outbreaks have been reported in 22 countries (see <http://www.healthmap.org/dengue/en/> for regular updates of affected countries). In the past two years alone, sizeable outbreaks of dengue fever were reported in Angola and Kenya. There are recent reports of dengue in travellers to a number of West African countries including Senegal, Nigeria, Guinea, Mali, Ivory Coast and the Gambia. Dengue virus is not endemic in South Africa, although a transient outbreak of dengue fever was reported in Durban in the early 1900s. Dengue fever is commonly confirmed in travellers returning to South Africa from dengue-endemic countries in Africa, south-east Asia and South America.

Although malaria must always be the first consideration in travellers with acute febrile illness returning from most African countries (including Tanzania and Mozambique), dengue fever should be considered in the differential diagnosis. Dengue fever is typically characterised by a sudden onset of fever with frontal headache, retro-orbital pain, myalgia, arthralgia and rash, although the latter two symptoms are variable. Dermatological manifestations occur in up to 50% of patients as facial flushing, erythematous mottling or a maculopapular rash. Thrombocytopenia is a common finding and is typically self-limiting; leukopenia may also be present. A small proportion of patients develop severe dengue fever disease, which manifests as dengue haemorrhagic fever or dengue shock syndrome; severe disease is more common amongst children and patients who are re-infected with another dengue serotype. Treatment of acute dengue fever is supportive. For further information on management of patients with dengue, refer to the World Health Organization guidelines for dengue diagnosis, treatment, prevention and control at [http://apps.who.int/iris/bitstream/10665/44188/1/9789241547871\\_eng.pdf](http://apps.who.int/iris/bitstream/10665/44188/1/9789241547871_eng.pdf).

Dengue viruses are transmitted by *Aedes* spp. mosquitoes, which usually bite during daytime. Travellers to dengue fever-risk areas should use mosquito repellents containing DEET, wear long-sleeved shirts and long pants during the day, and stay in well ventilated (fan/air-conditioned) rooms where possible. Burning mosquito coils at night and sleeping under a mosquito net in a well-ventilated room is also helpful. There are no available vaccines.

Laboratory testing for dengue fever is available at the Centre for Emerging and Zoonotic Diseases, NICD-NHLS. Molecular diagnostic tests and virus isolation are useful in the first week of illness, and demonstration of seroconversion helps to confirm a diagnosis.

**Source:** Centre for Emerging and Zoonotic Diseases and Division of Public Health Surveillance and Response, NICD-NHLS