

Dengue fever, South Africa ex Angola

Dengue fever was confirmed in a South African male working in Luanda (Angola) who presented with an acute febrile illness to a Johannesburg Hospital in May 2013. His symptoms included fever, headache and myalgia; laboratory tests showed neutropenia, lymphopenia, thrombocytopenia, elevated hepatic transaminases and a negative malaria test; on examination, no rash was noted. These findings together with the recent reports of a dengue outbreak in Luanda prompted testing for dengue (albeit in the absence of a typical dengue rash). Dengue fever was confirmed by reverse transcription PCR, and molecular sequencing of the partial dengue virus NS5 gene revealed that the infection was caused by a dengue type 1 virus. The patient made an uneventful recovery.

Dengue fever has become a major, international public health concern with an estimated annual incidence of 50 million infections. Of concern to South Africa are travellers returning from tropical and sub-tropical countries where the disease is endemic. Dengue has been described as the most common cause of fever in travellers returning from the Caribbean, Central America and south-central Asia. Areas affected extend to most tropical and subtropical countries of Oceania, Asia, the Caribbean, the Americas, and parts of Africa. Dengue virus is transmitted to humans through the

bites of infected *Aedes* mosquitoes, principally *Aedes aegypti*, which commonly breed within households and are most active during the day. Refer to the April 2013 communiqué for details regarding the clinical presentation of dengue fever. The differential diagnosis of fever, myalgia and rash in returning travellers should include dengue fever. Laboratory investigations in suspected dengue fever cases should include the collection of clotted blood during the acute phase (first 5 days of illness), and both acute and convalescent serum samples. Conducting a full repertoire of serological and virological tests is strongly recommended as tests are highly dependent on timing of specimen collection. Appropriate infection prevention and control protocols should be observed when collecting and handling specimens and these should be packaged as biohazardous material. Store and transport at 4°C (or on ice packs) to the NICD-NHLS, 1 Modderfontein Rd., Sandringham, Gauteng, 2192.

Source: Centre for Emerging and Zoonotic Diseases and South African Travel Health Network, NICD-NHLS