

BEYOND OUR BORDERS

The 'Beyond our Borders' column focuses on selected and current international diseases that may affect South Africans travelling abroad. Numbers correspond to Figure 6 on page 12.

Lassa fever virus - Nigeria

A total of 379 cases of Lassa fever virus has been reported in Nigeria this year, with a case fatality ratio of 20.3% (226/379). The majority of cases are from Edo, Ondo, and Taraba states; however, a total of 14 states has been affected. The predominant age group affected by the virus is 21 to 30 years, and the age range is from <1 to 70 years.

Lassa fever is a zoonotic acute viral disease caused by the Lassa fever virus, a member of the arenavirus family of viruses. Lassa fever is endemic in many parts of West Africa, including Sierra Leone, Liberia, Guinea, and Nigeria. The animal reservoir is the multimammate rat (*Mastomys natalensis*), which is found throughout the region. Once infected, the rodent can excrete the virus for long periods of time, sometimes for the rest of its life.

Transmission of Lassa virus to humans occurs through ingestion or inhalation of the virus found in rodent urine or droppings. Person-to-person transmission may occur when there is

exposure to an infected person's blood, tissue and excretions. Health workers are commonly at risk of this type of exposure in settings where there is limited protective personal equipment (PPE).

The incubation period for Lassa fever is 1 to 3 weeks and the majority of patients (80%) will experience mild symptoms. However, 20% of patients experience severe symptoms including haemorrhaging, respiratory distress, severe vomiting, dehydration, and shock. A serious and common complication of Lassa fever is deafness. All persons infected with the virus are at risk of varying degrees of hearing loss, irrespective of the severity of the disease.

Treatment for Lassa fever is supportive care, ensuring fluid and electrolyte balance, oxygenation and maintaining blood pressure. The antiviral drug, ribavirin, has been used successfully in Lassa fever patients.

Hepatitis A – Virginia, USA

A foodborne outbreak of hepatitis A virus has been reported in the United States of America (USA), in Virginia. A total of 44 cases has been confirmed. One patient required liver transplantation and one patient, aged 75, has died. Patients range in age from 31 to 79 years, and more than half (n=26) have required hospitalisation.

Hepatitis A is a vaccine-preventable disease affecting the liver, caused by the hepatitis A single-stranded, RNA virus. The virus can be transmitted from person to person via the faecal oral-route, through direct contact with an infectious person, or from contaminated needles in drug-users. The incubation period is usually 14 to 28 days, and the disease can range from an

asymptomatic infection to acute viral hepatitis, and in severe cases, to acute liver failure.

In most developing countries where the virus is endemic, infection occurs in early childhood, which results in asymptomatic disease and lifelong immunity. In high-income countries, where there is intermediate to low endemicity of hepatitis A virus, infection can occur later in life, commonly during sporadic outbreaks, where the risk of severe disease is much higher. For this reason, many high-income countries routinely vaccinate children and high-risk groups against hepatitis A. During outbreaks, however, vaccination is recommended for persons of all ages.