

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 3 on page 9.

Rift Valley fever: Kenya

A Rift Valley fever outbreak that is thought to have begun in November 2020, has resulted in 32 cases and 11 deaths by 4 February 2021 in Kenya. Human cases have been reported in two counties, Isiolo and Mandera, in the north-eastern region of the country, with animal cases also reported in the Murang'a and Garissa counties.

Kenya, where the Rift Valley fever phlebovirus was first isolated in 1931, remains endemic with four known outbreaks occurring within the last two decades. The most recent outbreak in 2018 resulted in 95 cases and 11 deaths reported in three other counties across the country.

Rift Valley Fever primarily affects livestock animals (cattle, sheep, goats, camels) and is spread through a mosquito-borne virus. The virus is, however, also transmitted from animals to humans through direct or indirect contact with infected animals and untreated animal products (uncooked meat, organs and blood, and unpasteurised milk), or through bites from certain

mosquitoes and blood-feeding flies.

Primary prevention of the health and economic losses of Rift Valley fever are aimed at enhancing routine animal vaccination, vector control and animal health surveillance, particularly in endemic areas and areas affected by heavy rainfall and flooding. Outbreak management includes restricting the movement of livestock, improving animal husbandry and food safety practices, and preparing healthcare services for active case finding and management and community sensitisation.

The non-specific and wide-ranging clinical presentations of Rift Valley fever (flu-like, haemorrhagic, encephalitic, ocular, etc.) makes the occupational and social/recreational history important in the clinical consultation to guide who should have their blood tested for the virus. No specific treatment or human vaccine exists for this disease, but supportive management usually results in recovery.

Cholera: Mozambique

By 9 February 2021, the northern Mozambican province of Nampula reported 133 cases of cholera with no deaths since the beginning of the outbreak in January 2021. Meanwhile, the cholera outbreak of the neighbouring Cabo Delgado province which began in January 2020 is ongoing, with a cumulative total of 2 952 cases and 40 deaths.

This infectious disease is caused by the *Vibrio cholerae* bacterium and may remain asymptomatic or cause severe acute watery diarrhoea which, when left untreated, leads to rapid dehydration and death. Both symptomatic and asymptomatic individuals are contagious and may transmit the bacterium. Cholera is transmitted through the faecal-oral route and easily spreads via contaminated water and food.

Transmission may be prevented by systemic and structural measures to appropriately treat and provide water, ensure safe food preparation, provide proper sanitation and ensure community sensitisation about personal protection by basic interventions such as hand hygiene. Travellers to or residents of endemic areas may increase their protection through immunisation.

Recurrent cholera outbreaks have occurred in Mozambique, often after heavy rainfall. The more recent outbreaks have occurred within the context of cyclone activity in the northern parts of the country, the security crisis of insurgent attacks and the COVID-19 pandemic resulting in mass population displacement and an interruption of healthcare services.

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Listeriosis: United States of America

As of 11 February 2021, seven people across four states in the United States of America have been hospitalised and diagnosed with listeriosis, an outbreak that is thought to have begun in October 2020. There have been no deaths. Listeriosis is a foodborne disease caused by the *Listeria monocytogenes* bacterium. Transmission of the causative agent has been linked to consumption of fresh soft cheeses, but the brand and exact types of cheeses affected are still being investigated.

Once contracted, the disease may present as a mild gastroenteritis that could be self-limiting. In high risk populations such as pregnant women, the extremes of age and the immunocompromised, more severe disease in the form of septicaemia or meningitis may be present with a mortality rate

up to 30%. Listeriosis is treatable with antibiotics if diagnosed early.

The bacterium that causes listeriosis may be found in fresh and processed foodstuffs, and often survives traditional methods of preservation such as refrigeration, salting and smoking. However, food that is cooked and milk that is pasteurised are usually safe. Prevention of food contamination with the bacterium must be employed through all processes of the food chain. This should be implemented through good hygienic practices and good manufacturing practices and food safety management systems should be based on the principles of hazard analysis critical control points.



Source: ProMED (www.promed.org), World Health Organization (www.who.int),
Centres for Disease Control and Prevention (www.cdc.gov)