

Rabies

No additional cases of human rabies have been reported since the last Communiqué. A total of seven laboratory-confirmed and two probable cases of human rabies has been reported in South Africa for 2013 to date. In 2012, a total of ten laboratory-confirmed cases of human rabies was recorded in South Africa. During the last decade (2003-2013), human rabies cases were reported from KwaZulu-Natal (n=51), Limpopo (n=40), Eastern Cape (n=31), Mpumalanga (n=6), Free State (n=4), North West (n=2) and Northern Cape (n=1) provinces. A case of locally-acquired rabies was recorded in a young child from Soweto, Gauteng Province, in 2010.

During the previous decade, nearly three-quarters of the rabies victims were children under 16 years of age. The majority of patients reported exposures to domestic dogs, but cases of exposure to mongoose (n=3) and single cases of exposure to jackal, domestic cat, caracal and bat (the rabies case associated with Duvenhage virus infection) were also reported. The NICD-NHLS serves as the reference laboratory for investigation of suspected human rabies cases in South Africa. Appropriate specimens for ante-mortem investigation of suspected rabies cases include saliva, cerebrospinal fluid and nuchal biopsies. Ante-mortem diagnosis of rabies remains challenging and is influenced by many factors, including the timing of specimen collection and rabies vaccination status of the patient. Post-mortem diagnosis is conducted on brain biopsy specimens, and includes brain impression smears and detection of rabies viral antigen using an anti-rabies virus nucleocapsid polyclonal serum coupled to a fluorescent detection dye.

Domestic dogs and cats, due to their high level of contact with the human population, pose the main risk to humans, although any mammal can contract rabies. Domestic dogs and wildlife (including bat-eared fox, yellow mongoose and black-backed jackal) are most commonly diagnosed with rabies in South Africa. Smaller mammals such as rodents and squirrels are not considered animals of concern for rabies transmission; usually these animals will die as a result of the rabid animal attack before they can successfully incubate and transmit the disease. The Agriculture Research Council-Onderstepoort Veterinary Institute in Pretoria and Allerton Veterinary Laboratory in Pietermaritzburg are the Department of Agriculture, Forestry and Fisheries (DAFF)-approved laboratories for animal rabies testing in South Africa. Rabies-infected animals have been reported from all nine provinces in South

Africa. KwaZulu-Natal (KZN) Province has the highest rate of dog rabies in the country; in 2012, DAFF reported a total of 315 positive canine cases countrywide, of which 233 (74%) originated from KZN.

The primary modes of limiting rabies transmission and risk to humans include keeping rabies vaccination of domestic dogs and cats up to date, avoiding contact with unknown and stray or wild animals, and seeking prompt medical care (including rabies post-exposure prophylaxis) after potential exposures.

Healthcare workers and members of the public can access the NICD website (www.nicd.ac.za) for further information regarding rabies. The national rabies guideline document may also be downloaded from the NICD website at <http://www.nicd.ac.za/?page=guidelines&id=73>.

On 28 September, the world celebrates World Rabies Day. Events and programs for World Rabies Day are aimed at increasing awareness for the prevention and control of this deadly disease. More information regarding World Rabies Day may be found at <http://rabiesalliance.org/world-rabies-day/>.



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