

c Rabies

A total of seven laboratory-confirmed human rabies cases was documented in South Africa during 2014. Five locally-acquired cases were reported from Eastern Cape (n=3), North West (n=1) and Limpopo (n=1) provinces. In all these cases, the case-patients had a compatible history of contact with potentially rabid domestic dogs. In addition, two laboratory-confirmed human cases with exposure in neighbouring countries were reported during 2014: an adult South African citizen who acquired rabies whilst living in Angola was medically evacuated to South Africa for healthcare and tested for rabies whilst hospitalised in Johannesburg, and a six-year-old boy from Tshikombedzi in Zimbabwe (a main town near Beitbridge border with South Africa) who was hospitalised in a Limpopo Province hospital. The child presented with symptoms compatible with rabies infection (confusion, hypersalivation, vomiting and restlessness) approximately three to four weeks following a dog bite sustained in Zimbabwe. Saliva samples and nuchal skin biopsy collected on 09 and 10 December 2014 were found positive for rabies by PCR testing at the NICD.

A total of five probable cases of human rabies were also recorded for South Africa for 2014 (Mpumalanga Province (n=2), Limpopo Province (n=2) and Eastern Cape Province (n=1)). These cases could not be verified by laboratory testing for various reasons, but their clinical presentation and disease course were compatible with rabies and all reported a history of contact with potentially rabid dogs.

All confirmed and probable rabies cases during 2014 followed exposure to domestic dogs, of which the majority were unknown stray animals; in one case an adult male was bitten by his own dog. Whilst most of these case-patients did not seek medical care following the implicated exposure, in four cases the case-patients presented to a healthcare facility following exposure but did not receive

appropriate rabies post-exposure prophylaxis (PEP).

The total number of human rabies cases for 2014 is similar to that of 2013, when 7 confirmed and 5 probable cases were reported. For the past five years, an average of 11 confirmed human rabies cases has been reported in South Africa (approximately 1 per 5 million population). Rabies in humans is expected to be underestimated in South Africa primarily due to low index of clinical suspicion and misdiagnosis. The list of differential diagnoses for patients presenting with an encephalitic illness is broad, and in the absence of accurate exposure histories that may implicate contact with rabid animals, the index of suspicion for rabies is usually low and a diagnosis of possible rabies is not entertained. Healthcare workers may not specifically elicit, and patients or their families may not recall, more subtle or unusual exposures to potentially rabid animals (e.g. licking of mucous membranes or broken skin, seemingly superficial scratches, exposure to apparently tame and friendly animals, exposure to potentially rabid animals other than domestic dogs – including cats, bats, cows, sheep or wildlife). Domestic dogs do however, remain the most important vector of the disease to humans.

Rabies remains the infection with the highest mortality rate in humans, but is fortunately entirely amenable to control and prevention when the appropriate measures are taken. The feasibility of regional elimination of domestic dog rabies in many countries around the world has been demonstrated and remains the most cost-effective strategy for combatting human rabies.

The national rabies guidelines including instructions for administration of rabies PEP are available from the NICD website, www.nicd.ac.za.

Source: Centre for Emerging and Zoonotic Diseases, NICD-NHLS