

3 ZOO NOTIC AND VECTOR-BORNE DISEASES

a Rabies

A case of rabies was confirmed in an 8-year-old boy child from Eastern Cape Province. The child was admitted to hospital on the 15th May presenting with restlessness and had weakness in his upper limbs which later extended to lower limbs. He was placed on a ventilator shortly after admission and passed away on the 23rd May 2015. A single saliva specimen was submitted to the NICD and tested positive by rabies RT-PCR. The family was not able to provide a definitive history of a dog bite before the patient fell ill, but as rabies transmission may occur even with small wounds such as scratches or nicks, and even licks on mucosal membranes, it is likely that the child did not report these to his family. Including this case, a total of four cases of human rabies has been laboratory confirmed in South Africa for the current year to date. These cases were reported from KwaZulu-Natal, Eastern Cape (case discussed here) and Limpopo provinces (n=2). All cases, except the Eastern Cape case, reported exposures to dogs and either received no or incomplete rabies post-exposure prophylaxis. In addition, a suspected case of rabies was reported in an 11-year-old boy from the Eastern Cape. The patient presented with restless behaviour, difficulty breathing, vomiting and diarrhoea. The patient died after a short hospital stay without a confirmed diagnosis. A single saliva specimen was submitted for testing to the NICD but resulted negative with rabies RT-PCR. This finding does not exclude the diagnosis of rabies, as the virus is shed only intermittently in saliva. No definitive history of exposure to dogs or other animals could be provided in this case. Given the clinical presentation and outcome of the patient, but the lack of laboratory confirmation and/or history to support the probable diagnosis of rabies, the case may be classified as a suspected case only.

Cases of human rabies are reported from South Africa annually (Figure 6), with an average of 8

cases per annum in the past 5 years. Since 2010, cases were reported from Limpopo, KwaZulu-Natal, Mpumalanga, Free State and Gauteng provinces.

The first international meeting of the Pan-African Rabies Control Network was held in South Africa from 9th to 11th of June 2015 (<https://paracon.rabiesalliance.org>). This meeting brought together countries from sub-Saharan Africa in an effort to strategize regional and continental approaches for the control of rabies in dogs and the prevention of human cases. A recent study¹ has estimated 59 000 human rabies cases occur globally per year. More than two-thirds of all human cases occur in African countries, which can be explained by the fact that these countries have the lowest investment in dog rabies control in the world¹. The most economical and effective approach for preventing human rabies cases remains the vaccination of dogs which are the main vector of the disease to humans. In South Africa, the law states that the responsibility for rabies vaccination remains with the pet owner. Post-exposure guidelines for rabies are available on the NICD website by following

<http://nicd.ac.za/assets/files/Rabies%20Poster%202011.pdf>

1.Hampson K, Coudeville L, Lembo T, Sambo M, Kieffer A, Attlan M, *et al.* (2015) Estimating the global burden of endemic canine rabies. *PLoS Negl Trop Dis* 9(4): e0003709. doi:10.1371/journal.pntd.0003709

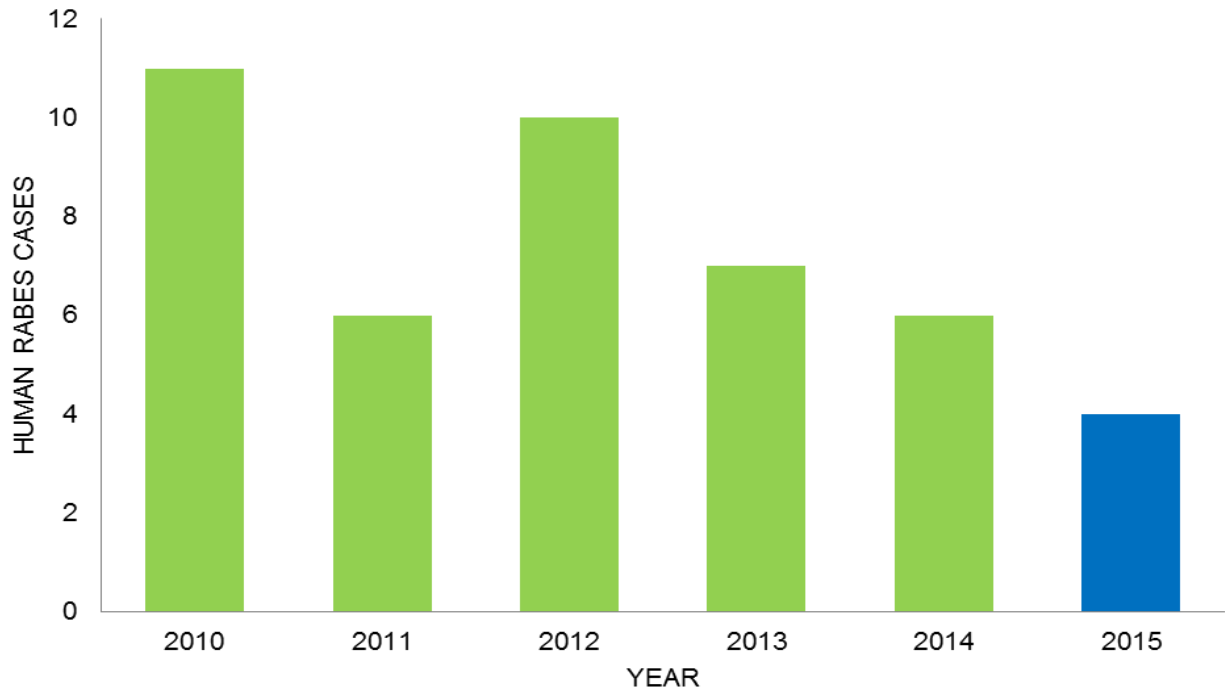


Figure 6. Number of confirmed human rabies cases for South Africa, 2000-2015 (12 June)

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