

c Rabies update and review of human cases, 1983-2015

Update

No human rabies cases have been reported to date this year in South Africa. Rabies was confirmed in a domestic unvaccinated cat on a plot bordering on the Roodeplaat Dam and Nature Reserve in the City of Tshwane, about 30 km from the centre of the city. The cat appeared ill, and was euthanized. Rabies was confirmed by PCR. Sequencing of the virus is currently underway to identify whether the strain is a canid or viverid biotype. There were no confirmed human exposures prior to capture. After capture at Onderstepoort Veterinary Institute, a nurse, nine students and four animal technicians were exposed and received post-exposure prophylaxis. After the diagnosis was made, a ring vaccination campaign was conducted in the area, and approximately 350 pets were vaccinated.

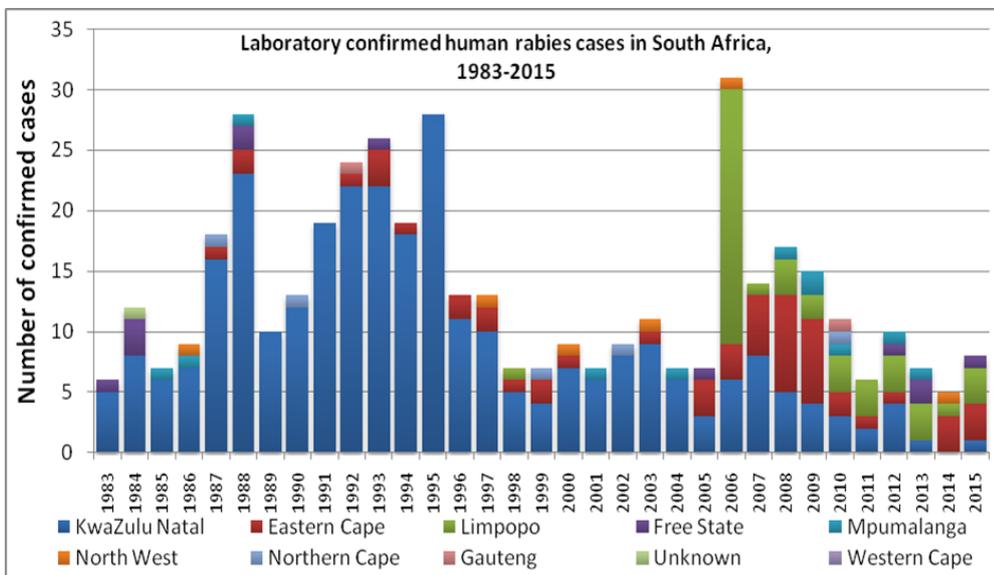
Sporadic cases of viverid rabies are seen from time to time in mongeese on the outskirts of Gauteng so it is advisable that all domestic cats and dogs in be vaccinated against rabies at least twice in the first year and then every three years as per the regulations. When persons are bitten by animals, a risk assessment for rabies must be carried out in all areas in South Africa, including urban and peri urban areas.

Human Rabies cases, 1983-2015

More than 80% of human rabies cases confirmed in South Africa are linked to exposures involving domestic dogs, although rabies is also reported in other species. Historically KwaZulu-Natal Province was most affected, but in the last ten years dog rabies has emerged in several additional locations in South Africa (Figure 1). Currently dog rabies cases are reported from the Mpumalanga, Limpopo,

Eastern Cape, North West, Free State and KwaZulu-Natal provinces. In the past ten years an average of 13 human cases has been reported (range 5-31) per year. In 2015, eight confirmed human rabies cases were diagnosed from the following provinces: KwaZulu-Natal (n=1); Limpopo (n=3); Eastern Cape (n=3) and Free State (n=1). Three probable and one suspected human rabies cases were identified.

Rabies is an invariably fatal disease, but it is completely preventable with the use of rabies post-exposure prophylaxis (PEP) in patients exposed to potential (or confirmed) rabid animals. Exposures are categorized based on the risk of the exposure as category 1, 2 or 3. Category 1 exposures present cases where the risk of exposure to rabies virus is negligible and no response is required. An example of a category 1 exposure is the petting of a potentially (or confirmed) rabid animal. Category 2 exposures present intermediate risk for rabies transmission and include superficial exposures such as grazes or surface scratches that did not draw any blood. Category 2 exposures require a regimen of four intramuscular doses of rabies vaccine administered in the deltoid muscle. Category 3 exposures include any exposure that results in a wound however minimal, that draws blood: A break in the skin barrier may allow the penetration of rabies virus-laden saliva from the animal that was involved in the exposure. Category 3 exposures require copious wound washing, followed by provision of rabies immunoglobulin (at 20 IU/kg, in deltoid muscle not receiving the rabies vaccine) and four doses of rabies vaccine administered. An updated rabies PEP guidance poster is available from the NICD website for further information (www.nicd.ac.za).



Source: Centre for Emerging and Zoonotic Diseases, NICD-NHLS; Onderstepoort Veterinary Institute, Gauteng Department of Agriculture and Rural Development; (januszp@nicd.ac.za)

Figure 1. Laboratory-confirmed human rabies in South Africa, 1983-2015