1 ZOONOTIC AND VECTOR-BORNE DISEASES

a An update on rabies in South Africa, 2018

No additional cases of human rabies have been confirmed since the last report. In total, 15 cases of human rabies have been confirmed in South Africa for 2018 to date. These cases were reported from KwaZulu-Natal (n=8), Eastern Cape (n=6) and Mpumalanga (n=1) provinces. In addition, two probable cases (not laboratory confirmed) were reported from the Eastern Cape Province.

Rabies in animals are continuously reported from various animal species in different locations in South Africa. In 2018, rabies has been reported in dogs from KwaZulu-Natal, Eastern Cape, Mpumalanga, Free State, North West and Limpopo provinces. Two cases of rabies in dogs were also confirmed in Ga-Rankuwa (located about 40 kilometres north of Pretoria), Gauteng Province, in November 2018. Rabies has also been reported in jackals, mongoose and genets. Livestock such as cattle, sheep, goats and horses have also tested positive for rabies in 2018.

Although not treatable, rabies can be **controlled** and infection **prevented**. Dogs and cats can be vaccinated against rabies, which does not only protect the animal from the disease, but also all those who may come into contact with that animal. In South Africa, vaccination of dogs and cats is required by law (from three months of age) and can be routinely accessed through private veterinarians and many animal welfare and non-profit organisations serving communities in the country. State veterinary services routinely respond to reports of rabies in animals, and provide strategic vaccination of dog (and cat) populations in affected areas. The public is urged to ensure that their pets have been vaccinated against rabies and that their immunisation schedule remains up to date. This is particularly important ahead of the holiday season, and when families take their pets to holiday destinations around the country.
Since the rabies virus is spread through direct contact with rabid animals, it is advised to generally avoid interaction with unfamiliar animals. Rabies disease changes the behaviour of animals, for example, an animal that you would expect to be wild can appear tame. As such, it is important to report all direct contact with wildlife that is out of the ordinary. Do not feed or approach wild animals even though they seem friendly. On the other hand, an approachable pet may become aggressive. Report stray dogs to the responsible state veterinarian, and avoid interaction with such dogs if possible.

When potential exposure to rabid animals occurs, the infection can be effectively prevented through rabies post-exposure prophylaxis. This treatment includes thorough washing and treating of all wounds, and the application of rabies vaccine and rabies antibody-therapy. It is important to understand that the rabies virus is transmitted through direct contact with the infected saliva of a rabid animal. Infection may occur when this infected saliva enters the body of a person, through a bite, scratch or other injuries that have penetrated the skin. Exposures that could have brought animal saliva into contact with a person's mouth, nose or eyes, or broken skin, should also be reported. This may occur when, for example, a dog licks your face. When such exposures occur, it is important that the advice of a healthcare practitioner is urgently sought. When rabies is considered a risk, based on the circumstances of the possible exposure, rabies post-exposure prophylaxis must be provided. More information on rabies post-exposure prophylaxis can be accessed from the NICD website.

Source: Centre for Emerging Zoonotic and Parasitic Diseases, NICD-NHLS; januszp@nicd.ac.za

2 ENTERIC DISEASES

a An update on cholera

Cholera cases in South Africa, 1 January to 12 December 2018
South Africa has reported five laboratory-confirmed cases of cholera in three provinces for the year to date (Table 1). The first four cases were detailed in previous NICD communiqués - see Table 1.

The most recent case is a 45-year-old male game scout, who lives and works at a game farm near Ga-Kibi, in Blouberg Sub-district, Limpopo Province. He developed acute watery diarrhoea on 19 November 2018 and was admitted to Helena Franz Hospital for investigation. He reported no travel history (within and outside South Africa) in the 10 days before illness onset. A household contact recently travelled to Zimbabwe, having returned to South Africa on 11 November 2018. The patient recovered and was discharged from hospital. *Vibrio cholerae* was isolated from a stool sample, and identified as *V. cholerae* O1 serotype Inaba.

Isolates from cases two and three were confirmed as *V. cholerae* O1 serotype Ogawa (Table 1), and on whole genome sequencing (WGS), are identical to the current *V. cholerae* O1 serotype Ogawa outbreak strain circulating in Zimbabwe. However, iso-

lates from cases four and five are both *V. cholerae* O1 serotype Inaba. At present, there is no explanation for this unexpected finding. Investigations have not shown any epidemiological link between the cases, and there is no indication that *V. cholerae* O1 serotype Inaba strains have also been identified during the current outbreak in Zimbabwe. WGS for these isolates is pending.

Update on the current outbreak in Zimbabwe

The outbreak in Zimbabwe continues, with 10 550 suspected cases (including 59 deaths) reported between 4 September and 7 December 2018. Although case numbers in Harare city are declining, new foci of cases have emerged in other districts, and nine of ten provinces have reported cases. However, there is a downward trend in case numbers overall and it is hoped the mass oral cholera vaccination campaign conducted in October and intensive WASH (water, sanitation and hygiene) interventions will curb transmission.

Alert to healthcare workers: don't forget cholera this holiday season!

Heightened awareness for possible cholera cases must be maintained whilst the outbreak continues in Zimbabwe, and especially so in the coming holiday season when travel volumes peak. Any patient who develops acute watery diarrhoea with or without vomiting should be investigated for suspected cholera.

Mild-to-moderate cholera cases may be treated with oral rehydration fluid. Severe cases require admission and intravenous fluid administration. Antibiotic treatment is recommended for patients with moderate to severe dehydration, as it reduces disease severity and the risk of further transmission. Azithromycin is recommended for cases linked to the current Zimbabwean outbreak.

All suspected cases should be investigated and notified immediately to the relevant stakeholders. Healthcare workers should ensure that stools or rectal swab specimens are collected, and specimens should be sent to the testing laboratory with a specific request for cholera testing. If a delay in testing or transport of specimens is anticipated, specimens should be submitted in Cary-Blair transport media. Additional information on cholera, including guidance on specimen collection and case management, can be accessed on the NICD website: http://www.nicd.ac.za

Source: Centre for Enteric Diseases, NICD-NHLS; (junot@nicd.ac.za)

Table 1. Laboratory-confirmed cholera cases reported in South Africa, 1 January to 12 December 2018

Case	Province	Date of illness onset	Outcome	Serotype	Travel History[#]	Comments
1	KZN	7 February	Discharged	*Ogawa*	No	See the NICD Communiqué, February 2018, vol.17(2) for case details
2	GP	29 September	Discharged	*Ogawa*	Yes	See the NICD Communiqué, October 2018, vol.17(10) for case details
3	GP	4 October	Discharged	*Ogawa*	No. Spouse of case 2; close household contact	
4	LP	8 November	Discharged	*Inaba*	Yes	See the NICD Communiqué, November 2018, vol.17(11) for case details
5	LP	19 November	Discharged	*Inaba*	No	Case detailed in this report

[#]Travel to area/s experiencing cholera outbreak(s); KZN: Kwazulu-Natal Province; GP: Gauteng Province; LP: Limpopo Province.