

## ENTERIC DISESES

# Two confirmed cholera cases in KwaZulu-Natal Province, South Africa

KwaZulu-Natal Province investigated two sporadic cases of laboratory-confirmed toxigenic *Vibrio cholerae* O1 identified in December 2019 and January 2020. The first case was a 49-year-old male who lives and works in Durban (eThekweni Metropolitan Municipality) on weekdays. The patient travels to his home in Kwa Gubhuza (Ugu District) on weekends. On 20 December 2019, the patient travelled from Durban to Kwa Gubhuza for the holidays. There was no history of travel to known cholera-affected areas. The community in Kwa Gubhuza uses untreated water from the nearby Umzumbe River. On 25 December 2019 (five days after his arrival), the patient developed abdominal cramps and diarrhoea, and presented to the local clinic where he received symptomatic treatment as an outpatient. Three days later, he presented to Port Shepstone Hospital with severe watery diarrhoea and was admitted. A stool specimen was collected and submitted to the National Health Laboratory Service (NHLS) for routine microscopy, culture and sensitivity (MCS) testing. Presumptive *V. cholerae* was detected by the local laboratory on 2 January 2020. The Centre for Enteric Diseases at the National Institute for Communicable Diseases (NICD) confirmed the isolate as toxigenic *V. cholerae* O1 serotype Ogawa. The patient made an uneventful recovery and was discharged.

The second case was a 57-year-old female patient living in Pongola (Zululand District). The available history is that the patient works in Hluhluwe Game Reserve (Umkhanyakude District). At both her home and work place, there is municipal potable water and formal sanitation (flushing toilets). On 8 January 2020, the patient visited KaNgqamuzana area (King Cetshwayo District) where she drank untreated river water, as there is no supply of treated water to the area. She returned home to Pongola on 9 January, and her symptoms began on 10 January; however, the history still needs to be confirmed. She was admitted to a private hospital in Richards Bay on 12 January 2020. A stool specimen was collected and tested positive for presumptive *V. cholerae* at the private diagnostic laboratory. The Centre for Enteric Diseases confirmed the isolate as toxigenic *V. cholerae* O1 serotype Ogawa.

There is no apparent epidemiological link for the two cases and NICD is performing whole genome sequencing

to determine genetic relatedness between the isolates, and to ascertain possible origins of the strain/s. Both isolates show susceptibility to ciprofloxacin, which is the recommended treatment of choice for moderate and severe cholera. No additional suspected cholera cases were reported from the relevant districts. Results of water sampling from the two implicated rivers are still pending.

Healthcare workers should be on alert for suspected cholera cases to ensure early detection and prevention of transmission. Cholera should be suspected in the following situations:

- A patient presenting with acute watery diarrhoea with a history of recent travel to an area where cholera is known to be present;
- In an area where cholera is not known to be present, a patient of any age who develops severe dehydration or dies from acute watery diarrhoea.

The following countries have areas with cholera transmission:

- Africa: Angola, Burundi, Cameroon, Democratic Republic of the Congo, Ethiopia, Kenya, Malawi, Mozambique, Nigeria, Somalia, Sudan, Tanzania, Uganda, Zambia, Zimbabwe
- Asia: Bangladesh, India, Yemen
- Americas: Haiti

Cholera is a notifiable medical condition. Notify any suspected cholera case immediately - do not wait for laboratory confirmation. Healthcare workers should ensure that stool samples are collected from suspected cholera cases as a matter of urgency. On the specimen submission form, clearly request 'MCS & cholera' testing, because testing for cholera is not included in routine 'MCS'. Samples should be transported to the laboratory as soon as possible after collection; if a delay of >2 hours before processing is likely, place the stool specimen in Cary-Blair transport medium (available from the laboratory). Healthcare facilities and laboratories, especially those in the affected area, should ensure that adequate resources are available for sample collection, appropriate laboratory tests, and management of cases.