

3 FOOD- AND WATER-BORNE DISEASES

Cholera

Cholera was confirmed in a 37-year-old male Zimbabwean national who has been residing in South Africa since 1997. The patient was admitted to Helen Joseph Hospital (Gauteng Province) on 28 August 2014 following a two-day history of diarrhoea, vomiting, fever and cough. *Vibrio cholerae* was isolated on a stool specimen submitted to the NHLS laboratory on admission, and was confirmed at the NICD Centre for Enteric Diseases as toxin-producing *V. cholerae* O1 serotype Ogawa. The patient was severely ill and required intensive care for severe dehydration and renal failure.

A comprehensive outbreak response was instituted including case investigation, active surveillance, contact tracing and testing of environmental water samples. The patient lives in the informal settlement of Diepsloot in Gauteng Province. He is a taxi driver by profession, travelling mainly around the areas in close proximity to Diepsloot; however, he occasionally travels further. On 22 August he drove a group of passengers to Zimbabwe. The taxi broke down at the Beitbridge border with Zimbabwe. He spent the night at the border post and hitch-hiked to Johannesburg the following day.

Twenty-three people reside in the same yard as the patient, and share one flushing toilet facility with a single potable water stand-pipe. Active surveillance identified three other household residents with recent/ongoing diarrhoea. Stool specimens were collected from these three persons as well as eleven other asymptomatic household contacts, who voluntarily agreed to provide samples. All fourteen clinical samples as well as communal tap water samples were negative for *Vibrio cholerae*. A definitive source of the patient's infection is yet to be confirmed but current evidence supports the possibility of infection being acquired whilst staying at the Beitbridge border area.

Health promotion was provided to household members. Health education remains an essential measure to reduce the likelihood of a local outbreak following the identification of a single cholera case.

Source: Division of Public Health Surveillance and Response and Centre for Enteric Diseases (Bacteriology) NICD-NHLS; Helen Joseph Hospital NHLS; Disease Surveillance and Outbreak Response, City of Johannesburg Department of Health