

Update: cholera outbreak, Limpopo Province

On 10 March 2013, cholera was confirmed in an adult patient admitted in Musina Hospital (Limpopo Province) with acute watery diarrhea and dehydration. Conventional culture detected *Vibrio cholerae* O1 serotype Inaba and the presence of cholera enterotoxin gene was demonstrated by molecular techniques. The patient received intensive fluid therapy and made an uneventful recovery (see March 2013 Communiqué).

Following the confirmation of cholera in this patient, numerous public health actions were undertaken to control the disease and prevent further spread. Clinicians were alerted to the need for a high index of suspicion in any patient presenting with sudden onset of profuse watery diarrhea and dehydration, and guidelines for the clinical management of cholera were reviewed and circulated to healthcare workers (www.nicd.ac.za). Local and reference laboratories were prepared for an influx of clinical specimens for cholera testing. Further public health actions that were undertaken included a health promotion campaign aimed at educating the community regarding the symptoms of cholera, the need for presenting promptly to a health facility for treatment, the need for observing proper hygiene practices, and on purification of water from informal sources. Formal water testing and inspections of sanitary facilities in refugee camps and farms were undertaken by the environmental health practitioners in the area. To date, no further cases of cholera have been reported in the province. The public health authorities remain on high alert for any new cases of imported cholera and the introduction of *V. cholerae* into informal water sources by infected persons. Clinicians in all provinces of South Africa need to remain on high alert to ensure early detection of cases and prevention of transmission. All suspected cases should be immediately notified to the local public health officials and investigated.

Cholera is an acute intestinal infection caused by the bacterium *V. cholerae*. The two serogroups responsible for epidemics are toxin-producing serogroups O1 and O139. Transmission occurs when a person ingests water or food that has been contaminated with the bacterium, and the

incubation period is 2 hours to 5 days (usually 2 to 3 days).

The treatment of cholera includes immediate assessment and appropriate treatment based on the degree of dehydration. Aggressive rehydration therapy in moderate/severely dehydrated patients with IV Ringer's lactate according to standard protocols remains the mainstay of treatment and is life saving. Antibiotic treatment should be used in those patients who have signs of moderate or severe dehydration. Stool or rectal swab samples should be collected and transported in Cary-Blair medium to the laboratory for cholera testing. Do not wait for laboratory confirmation before starting treatment of notifying the case.

Once a cholera patient has been identified, it is essential to inform local populations of hygienic measures they can take to protect themselves and reduce the likelihood of a local outbreak. Such messages should include the following:

- Always use clean/disinfected water for drinking, food preparation and washing of utensils.
- Wash hands with clean/disinfected water before and after handling food, and after using the bathroom.
- Where safety of water is not known, water can be made safe for use by boiling vigorously for 3 minutes and then allowing it to cool. Water should then be stored in a suitable, clean container with a lid. Alternatively, mix 1 teaspoon or capful of household bleach with 20-25 litres of water and let it stand for at least 2 hours (preferably overnight). Bottled water may not always be safe. Only use bottled water from a reliable source and only if the bottles are properly sealed.
- Human waste should be disposed of in a manner that does not contaminate water sources.
- Store food under hygienic conditions.

Source: Communicable Diseases Directorate, Limpopo Department of Health; NHLS Polokwane; Centre for Enteric Diseases and Division of Public Health Surveillance and Response, NICD-NHLS.