3 ENTERIC DISEASES

a Two confirmed cholera cases in Gauteng Province, South Africa

There is an ongoing cholera outbreak in Zimbabwe, with 9 116 cases and 54 deaths reported as of 12 October 2018. While the outbreak is concentrated in the densely populated suburbs of Harare, cases have also been reported from eight other provinces. A mass oral cholera vaccination campaign was launched in Harare on 3 October 2018 targeting >420 000 people. Subsequent phases of the vaccination campaign targeting an additional 370 000 people are imminent.

A case of cholera in South Africa was confirmed in a 50-year-old female with a travel history to Zimbabwe. The patient travelled from Harare (Zimbabwe) to Pretoria by bus on 28-29 September, and developed abdominal cramps and diarrhoea whilst travelling. She was admitted to a Tshwane hospital on 1 October presenting with profuse watery diarrhoea complicated by dehydration. She reported contact with ill people during her stay in Harare. The patient's husband, a 49-year-old male, was admitted on 4 October with acute watery diarrhoea also confirmed as cholera. Both patients responded to intravenous rehydration and antibiotic therapy and recovered uneventfully.

Vibrio cholerae was isolated from stool samples at the testing NHLS laboratory in both cases, and confirmed to be toxin-producing *V. cholerae* O1 serotype Ogawa at the National Institute for communicable Diseases (NICD). The isolates are resistant to most first-line antibiotics (including tetracycline, cotrimoxazole, doxycycline, ceftriaxone and ciprofloxacin) but are susceptible to azithromycin.

Cholera is usually transmitted through contaminated drinking water or food. However, cholera can also be transmitted following direct contact with infective material (e.g. stool or vomitus), so transmission within households is not uncommon.
Mild-to-moderate 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, since this cholera strain is resistant to ciprofloxacin.

In South Africa, heightened awareness for possible cholera cases must be maintained whilst the outbreak continues in Zimbabwe. Any patient who develops acute watery diarrhoea with or without vomiting should be investigated.

Any suspected case should be notified immediately to the facility's infection prevention and control practitioner, district Communicable Disease Control Coordinators (CDCCs) and to the national notifiable medical condition (NMC) system. 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 under the diseases A-Z Tab.

Source: Centre for Enteric Diseases, Division of Public Health Surveillance and Response and Provincial Epidemiology Team, NICD-NHLS; Gauteng Provincial and City of Tshwane CDCCs; (junot@nicd.ac.za; outbreak@nicd.ac.za)

4 INTERNATIONAL OUTBREAKS OF IMPORTANCE

a Ebola virus disease outbreak, Democratic Republic of Congo (DRC)

The Ebola virus disease (EVD) outbreak in North Kivu, Democratic Republic of Congo (DRC) is ongoing. As of 21 October 2018, a total of 238 confirmed and probable EVD cases, including 155 deaths (case fatality ratio 68.31%) has been reported. Of the 238 cases, 203 are confirmed and 35 are probable. Of the 155 deaths, 120 occurred in confirmed cases. As of 10 October 2018, 20 healthcare workers have been affected in this outbreak, of which 19 are laboratory confirmed and three have died. Beni, Butembo, Masereka and Mabalako continue to report an increasing number of new cases, indicating the persistence of Ebola virus transmission in these areas.

Recent cases in Beni include a disproportional number of cases in children aged ≤16 years; 47% (n=20) of 43 total cases reported since 1 October 2018, including nine cases in infants and young children aged <5 years. Investigation teams are intensively reviewing potential sources of the recent increase in cases among children. As of 15 October 2018, 57 cases have recovered, been discharged from Ebola treatment centres (ETCs), and reintegrated into their communities. The treatment centres in Beni and Butembo recorded an occupancy rate of 76% (31/41) and 42% (10/24) respectively.

Unstable political situation has hampered follow-up of contacts.

Vaccines and new drugs being used
A ring vaccination program was implemented in the

affected areas in North Kivu Province, DRC, from 8 August 2018. The ring vaccination entails vaccination of contacts of confirmed EVD cases, and contacts of those contacts, using a recombinant vesicular stomatitis virus vaccine expressing the Ebola virus glycoprotein (rVSVΔG-ZEBOV-GP). According to the World Health Organization (WHO), as of 17 October 2018, a total of 17 976 eligible persons had been vaccinated as part of control efforts of the North Kivu outbreak. As part of case management, Ebola treatment centres continue to provide therapeutic treatment to patients under monitored emergency use approval. The WHO approved the use of five experimental molecules, including two antiviral drugs (Remdesivir and Favipiravir) and three antibody cocktails (ZMapp, Regeneron-REGN3470-3471-3479 and mAb114). The latest available update from WHO indicates that as of 1 October 2018, 47 patients had received therapeutic treatment in addition to the standard care: 26 treated with mAb 114, 10 with Remdesivir, eight with Zmapp and three with Regeneron.

WHO risk assessment

The first International Health Regulation (IHR) Emergency Committee on the Ebola Virus Disease (EVD) outbreak in North Kivu, Democratic Republic of the Congo (DRC), was convened on 17 October 2018. At the end of the meeting, the Emergency Committee decided that the current EVD outbreak does not constitute a public health emergency of international concern at this time; although the outbreak is still deeply concerning and the risk of spread to neighbouring countries remains very high**.**

Situation in South Africa

As at 30 October 2018, there have been no EVD cases in South Africa associated with the current outbreak in the DRC. In addition, there are no suspected cases of EVD in South Africa at present.

Source: Division of Public Health Surveillance and Response, Centre for Emerging Zoonotic and Parasitic Diseases (outbreak@nicd.ac.za); WHO: www.who.int

5 SEASONAL DISEASES

a Influenza

The 2018 influenza season, which started in week 18 (first week of May) is ongoing, although the number of influenza positive samples has declined over the past few weeks. The number of specimens per week submitted by Viral Watch sites declined from an average of 45 in September to ≤ 12 in October.

During May and June, influenza A(H1N1)pdm09 accounted for ≥90% of influenza detections. From August onwards influenza B has accounted for ≥90% of detections per week.

Since the onset of the season, a total of 671 influenza detections has been made. Of these, 382 (57%) have been identified as A(H1N1)pdm09, 20 (3%) as A(H3N2) and 266 (40%) as influenza B. Three influenza A detections are untyped due to low viral load. Although the number of patients testing positive for influenza has declined, clinicians are reminded that influenza should still be considered as one of the potential cause of illness in patients presenting with influenza-like illness or respiratory illness during this period.

Source: Centre for Respiratory Diseases and Meningitis, NICD-NHLS; (cherylc@nicd.ac.za)

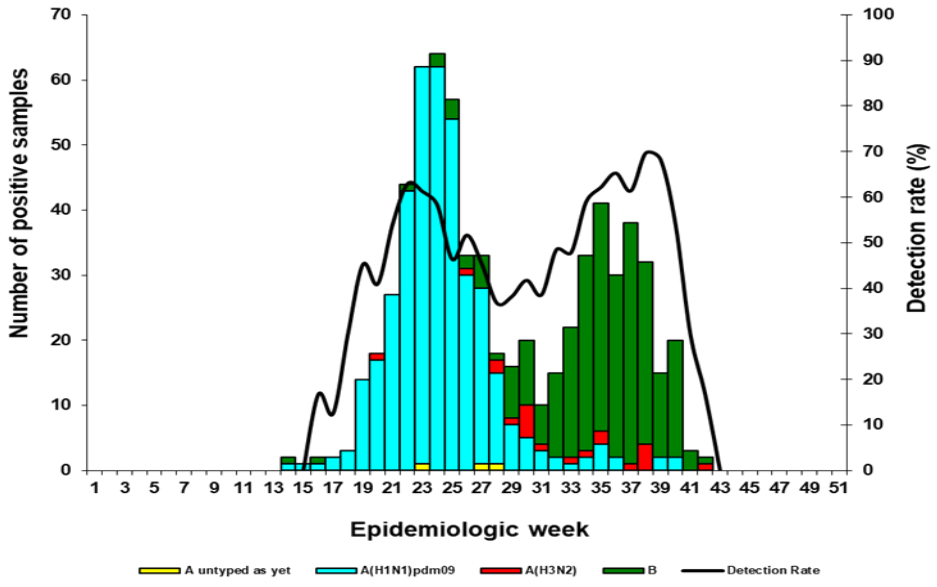

Figure 3.
Viral Watch 2018: Number of positive samples by influenza types and subtypes and detection rate*

*Only reported for weeks with >10 specimens submitted.

Patients known to have acquired influenza abroad or from contact with travellers are not included in the epidemiological curve.