Infectious Disease Surveillance and Monitoring for Animal and Human Health: summary of notable incidents of public health significance. July 2018

*Incident assessment:

<table>
<thead>
<tr>
<th>Deteriorating</th>
<th>No Change</th>
<th>Improving</th>
<th>Undetermined</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incident is deteriorating with increased implications for public health</td>
<td>Update does not alter current assessment of public health implications</td>
<td>Incident is improving with decreasing implications for public health</td>
<td>Insufficient information available to determine potential public health implications</td>
</tr>
</tbody>
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Notable incidents of public health significance

Ebola virus disease (EVD), Democratic Republic of Congo

Équateur Province, western DRC

The Ebola outbreak reported in Équateur province [map] in May was declared over on 24 July. In total, there were 54 cases, 38 confirmed and 16 probable.

North-Kivu Province, eastern DRC (NEW)

Following media reports of undiagnosed disease in North Kivu Province [map] at the end of July, the DRC Ministry of Health (MoH) reported four laboratory confirmed cases of Ebola Zaire in North Kivu province on 02 August [map]. A total of 26 suspected cases, including 20 deaths, were reported from Mangina health zone, 30km from the city of Beni (with a population of approximately 230,000 people), in North Kivu province. As of 6 August, there were 17 confirmed and 27 probable cases. There are indications that cases may have been occurring since early May, but confirmation of this is awaited. Local media attributed the delay in reporting to an ongoing healthcare worker strike in the affected area. This is the tenth EVD outbreak in DRC since 1976.

The virus responsible for this new outbreak has also been confirmed as Zaire ebolavirus, but sequencing results confirmed that it is distinct from that which caused the Équateur outbreak. The two outbreaks are therefore unrelated, but the same vaccine (rVSV-ZEBOV) can be used in the response.

North Kivu province is located on the east side of the country, and borders Uganda and Rwanda with significant cross border movements of both people and trade. WHO raised concerns about political instability and severe security issues in the area. In the past year there has been an increase in armed group activity in Orientale, Katanga and both North and South Kivu. Over 1 million civilians remain displaced as a result of the conflict in North Kivu.

WHO considers the public health risk at the national and regional level to be high, and low globally. The risk for the UK population is currently assessed as negligible-very low.
Other incidents of interest

- the third human case of avian influenza H9N2 in China in 2018 was reported from Guangdong province in July. Since 2015, 18 cases have been reported in China.

- South Sudan reported three Guinea worm cases in the former Lakes State. These are the country’s first cases since December 2016, and come after transmission was declared interrupted in February 2018. Chad is the only other country to have reported cases in 2018.

- the Rift Valley fever outbreak first reported in Kenya in June is improving. As of 23 July, a total of 94 cases have been reported from 3 counties; an increase of only 4 cases in the past month. Four confirmed human cases have been reported in Uganda, and Rwanda has been experiencing an epizootic, with suspected human cases; indicative of the wider extent of the disease in the region.

- a new species of Ebolavirus was discovered in insectivorous bats in Bombali district, Sierra Leone, as part of the PREDICT project. It is not yet known if this virus causes disease in humans. Investigations are ongoing.

- in July, Somalia, Nigeria and Papua New Guinea continued to report detections of vaccine-derived polio (cVDPV2).

- due to the increased geographic extent of the vaccine-derived polio (cVDPV2) outbreak in the DRC, WHO assessed the overall public health risk of further spread to be very high at the national level and high at the international level. The risk is magnified by known population movements between DRC, Uganda, the Central African Republic and South Sudan, and the upcoming rainy season which is associated with increased intensity of virus transmission.

Publications of interest

- Chlamydia caviae is a recognised as a rare cause of community-acquired pneumonia, primarily linked to direct contact with guinea pigs. A case was reported in the Netherlands without any known contact with guinea pigs. The patient presented to the hospital with fever, rigors, headache and non-productive cough, and initial testing on a pharyngeal swab was negative for respiratory pathogens. However, a bronchoalveolar lavage was positive on a C. psittaci PCR. Sequencing revealed that the organism was actually C. caviae. Epidemiological investigations could not determine the exact source of infection, though the patient had a garden where he frequently saw birds, cats (known to develop conjunctivitis from C. caviae infection) and mice. Indirect contact with secretions from these was considered a potential source of infection.

- the risk of death from severe fever with thrombocytopenia syndrome (SFTS) was analysed in a single-centre observational study that recruited 2096 patients with laboratory-diagnosed SFTS in China. This is the largest study to analyse the risk factors for death from SFTS by use of clinical data, laboratory test results and treatment regimens. The overall case fatality rate (CFR) was 16·2%. Death was associated with: being male; of older age; longer delay in admission; presence of diarrhoea or dyspnoea; development of haemorrhagic signs or neurological symptoms. For all cases, viraemia was a strong predictor of a fatal outcome. A simple scoring system using 6 clinical and laboratory parameters was developed which allowed prediction of the risk of death. Ribavirin therapy was effective in reducing CFR from 6·3% (15/240) to 1·2% (2/173), but only in patients with a viral load below $1 \times 10^6$ copies/mL.

angiostrongyliasis is a zoonosis caused by the *Angiostrongylus* roundworm. Human infection usually follows consumption of raw/undercooked snails, slugs, lizards, fish or contaminated vegetables, and usually presents as an eosinophilic meningitis. The **first report of human infection following ingestion of raw centipedes** has come from China, where two such patients were diagnosed. Both had eaten raw centipedes on multiple occasions, and *A. cantonensis* larvae were detected in centipedes from the same market used by both patients.

- a **systematic review of evidence on Zika virus sexual transmission** in 128 studies determined that infectious virus in human semen was detected for a median duration of 12 days and a maximum of 69 days, suggesting the infectious period for sexual transmission is shorter than current estimates. PHE is currently reviewing its recommendations.

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