Update on recently emerging respiratory viruses: Avian Influenza A(H7N9) in China, Influenza A(H3N2) variant (H3N2v) in the United States, and MERS-CoV in the Middle East – November 8, 2013

1. H7N9 UPDATE [Total: 140 cases; Deaths: 45], China

On 6 November 2013, the WHO reported two new laboratory-confirmed human cases of avian influenza A(H7N9). Both cases had symptom onset dates in late October and both reported recent exposure to live poultry. The first case is a 3-year-old boy with mild illness who was detected during routine hospital-based surveillance in Guangdong province. Only eight cases have been reported in children under 10 years old so far during this outbreak, which has predominately affected older adult men with underlying chronic conditions. Reports of mild illness associated with this latest paediatric case are consistent with previous cases of H7N9 in children. This case is only the second to be reported in Guangdong province. The previous case from Guangdong province, which borders Hong Kong, was reported in early August. Few details are available about the other recently reported case, a 64-year-old woman farmer in Zhejiang province. Zhejiang continues to be one of the most affected provinces during the outbreak, with 47 cases reported to date, two of which were reported earlier this October.

These latest cases bring the total H7N9 case count since first emergence in February 2013 to 140, including 45 deaths. Of note, a single case of H7N9 has been reported from Taiwan, but not otherwise outside of mainland China to date (please see attached map and H7N9 epidemic curve).

To stay current with ongoing H7N9 developments, consult the WHO avian influenza A(H7N9) page: http://www.who.int/influenza/human_animal_interface/influenza_h7n9/en/index.html.

2. MERS-CoV UPDATE [Total: 155+ cases; Deaths: 64], Middle East

Spain has reported its first case of MERS-CoV in a 61-year-old woman who travelled to Medina and Mecca in the Kingdom of Saudi Arabia (KSA) for the Hajj during the month of October. The woman had no underlying medical conditions and reported no recent contact with animals or other confirmed MERS-CoV cases. She developed symptoms on 15 October 2013 and sought emergency medical care in Mecca on 28-29 October 2013; she was hospitalized for pneumonia upon her return to Spain on 1 November 2013. Contact-tracing investigations of family members and health care personnel in KSA and Spain, as well as airline passengers and staff, are ongoing.

Since our last update, additional cases have also been reported in several Middle Eastern countries, including KSA (2) and Qatar (1) and the United Arab Emirates where a man from Oman was hospitalized with the virus in Abu Dhabi. To date, at least 155 confirmed cases have been reported since the initial Jordan cluster in March/April 2012, including 64 deaths (please see attached map and MERS-CoV epidemic curve).

The Spanish case is the first MERS-CoV case to be reported in association with the Hajj pilgrimage. Spain is the fifth country in Europe to report an imported MERS-CoV case. No MERS-CoV cases have been reported to date in the Americas. However, Hajj-related travel may include extended stay and there has been ongoing detection of cases in predominantly affected areas. Given an incubation period of 10 days or more clinicians are reminded to stay alert for possible importations among patients presenting with severe acute respiratory illness (SARI) and links to the Middle East.

For a detailed report of the latest European case, see the Rapid Risk Assessment from the European Centre for Disease Prevention and Control: http://www.ecdc.europa.eu/en/publications/Publications/mers-cov-risk-assessment-6-november-2013.pdf.

For ongoing WHO MERS-CoV updates, see: http://www.who.int/csr/disease/coronavirus_infections/en/index.html.

3. ACTION AND ADVICE [abbreviated]

In the event of a suspected SARI case, clinicians should notify their local health authority/Medical Health Officer. Clinicians and health care workers should implement respiratory precautions immediately, and cases should be managed in respiratory isolation with contact and droplet precautions. Aerosol-generating procedures may facilitate spread warranting airborne precautions. Given a spectrum of illness inclusive of milder or atypical presentations, clinicians are encouraged to use their judgement and/or consult infection control for guidance around enhanced measures where the index of suspicion and exposure risk (e.g. based on contact, comorbidity or clustering history) may be higher.

For diagnostic testing for suspected H7N9 or MERS-CoV, please discuss with your local health authority/Medical Health Officer and consult a virologist or microbiologist at the BC Public Health Microbiology & Reference Laboratory (PHMRL) to arrange advance notification and direct shipping. Lower respiratory specimens (e.g., sputum, endotracheal aspirate, or bronchoalveolar lavage) are recommended, where possible and clinically indicated. Follow strict infection prevention and control guidelines when collecting respiratory specimens.

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