

To:	BC MHOs, PHNLs, ICPs, ERDOCs, IDSPEC, MEDMICRO, AMBULANCE, BCCDC Internal Groups, National Surveillance Network Partners
Subject:	January 17, 2014 – Emerging Respiratory Viruses Update
Purpose:	To re-emphasize heightened clinician awareness of influenza A(H7N9) and MERS-CoV through the winter period given the recent announcement of new cases
Action required:	Yes
Recommendations:	Enhanced vigilance, notification and infection control by clinicians in response to cases of severe acute respiratory illness (SARI) with links to affected areas in the two weeks prior to symptom onset (i.e. residence, travel history or contact with someone with such history).

***** Please share with your workplace colleagues as appropriate. *****

Dear Colleagues –

In the six weeks since our last related bulletin to you on 6 December 2013, there have been more than 50 new cases of H7N9 reported from China. In addition, there have been nearly 15 new reports of MERS-CoV from the Middle East. Here we therefore provide an epidemiological update on these two emerging respiratory viruses.

1. H7N9 UPDATE [Total: 195 cases; Deaths: 53], China

China is experiencing a second wave of influenza A(H7N9) cases. Following initial emergence of this virus in February 2013, a first peak in human cases occurred in March/April 2013. A quiescent summer period was followed by sporadic cases during the fall 2013 but, more recently, a second wave has become evident with 51 new cases of human H7N9 illness reported since early December 2013. This second wave, and the provinces predominantly affected, is well-illustrated in the attached epidemic curve.

This past week, the first case report from the Province of Guizhou was confirmed in a migrant worker returning from the previously affected Zhejiang Province. Since early December, other cases have also been reported from the provinces of Zhejiang (18), Guangdong (18), Fujian (6), Shanghai (3), Jiangsu (2), and Anhui (1). Additional travel-related cases were also reported from Hong Kong SAR (1) and Taiwan (1) among individuals with probable exposures in mainland China. Zhejiang and Guangdong in south-eastern China have been the most affected provinces in recent months. Whereas Shanghai contributed substantially to cases during the initial March/April peak, it has been relatively less affected during the current period of activity with instead Zhejiang predominating alongside the more recently affected province of Guangdong – a particular concern given the latter’s proximity to Hong Kong.

Of these latest case reports, 6 have thus far been fatal, suggesting a case fatality of 12%. This estimate is lower than earlier reports from March/April when the case fatality was estimated at >30%; however, at the time of writing, most recent cases remain in hospital in critical condition so this estimate may change. The median age of recent cases is 54 years, and ~70% have been male, consistent with, if slightly younger than, the age/sex distribution of earlier cases. All of the recent cases have been adults >20 years old; none were children. Case reports continue to be sporadic and >60% of the latest cases cite poultry exposure.

The recent upswing in human cases of H7N9 is consistent with the natural seasonality of influenza viruses in winter months in temperate regions; similar seasonal patterns have been observed with other avian influenzas known to infect humans, such as H5N1. Health officials in China have raised concerns about increased crowding and travel and associated transmission opportunities surrounding the Lunar New Year celebrations beginning in late January. However, despite these concerns, there is currently no evidence of sustained human-to-human transmission of H7N9 and the risk assessment and recommendations remain unchanged at this time. Given the recent announcement of new cases, clinicians should be alert for patients presenting with severe acute respiratory illness (SARI) with recent travel or epidemiological links to affected areas.

Today, on 17 January 2014, the WHO pre-released recommendations on post-exposure antiviral chemoprophylaxis of close contacts of patients with confirmed H7N9 infection and/or high risk poultry or environmental exposures. In the event this may be considered, please consult with your local health unit. For the full WHO text, see:

www.who.int/entity/influenza/human_animal_interface/influenza_h7n9/13_January_2013_PEP_recs.pdf.

To stay current with ongoing H7N9 developments, consult the WHO avian influenza A(H7N9) page:

www.who.int/influenza/human_animal_interface/influenza_h7n9/en/index.html.

2. MERS-CoV UPDATE [Total: 178+ cases; Deaths: 75], Middle East

Since our last update on 6 December 2013, 13 new cases of MERS-CoV have been reported from Middle Eastern countries, including Saudi Arabia (9), the United Arab Emirates (UAE; 3), and Oman (1). Of these latest cases, 6 were health care workers (5 in Saudi Arabia and one in UAE) who were contacts of previously reported confirmed cases. Only one health care worker, a man with underlying chronic conditions, developed symptoms; the rest were asymptomatic. Two of the cases reported from the UAE were a family cluster involving a husband with underlying chronic conditions and his wife who was asymptomatic. Three of the latest cases have died.

These latest cases are thus consistent with the earlier epidemiologic pattern of sporadic cases and associated discrete clusters among close contacts, without evidence of sustained or community-level transmission.

As of 9 January 2013, the WHO has been informed of 178 lab-confirmed cases of MERS-CoV and 75 deaths. Six Middle Eastern countries have reported cases, including Saudi Arabia, Jordan, UAE, Oman, Qatar, and Kuwait. Saudi Arabia remains the most-affected country accounting for ~80% of MERS-CoV case reports. Given ongoing activity in affected regions and 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 ongoing WHO MERS-CoV updates, see:

www.who.int/csr/disease/coronavirus_infections/en/index.html.

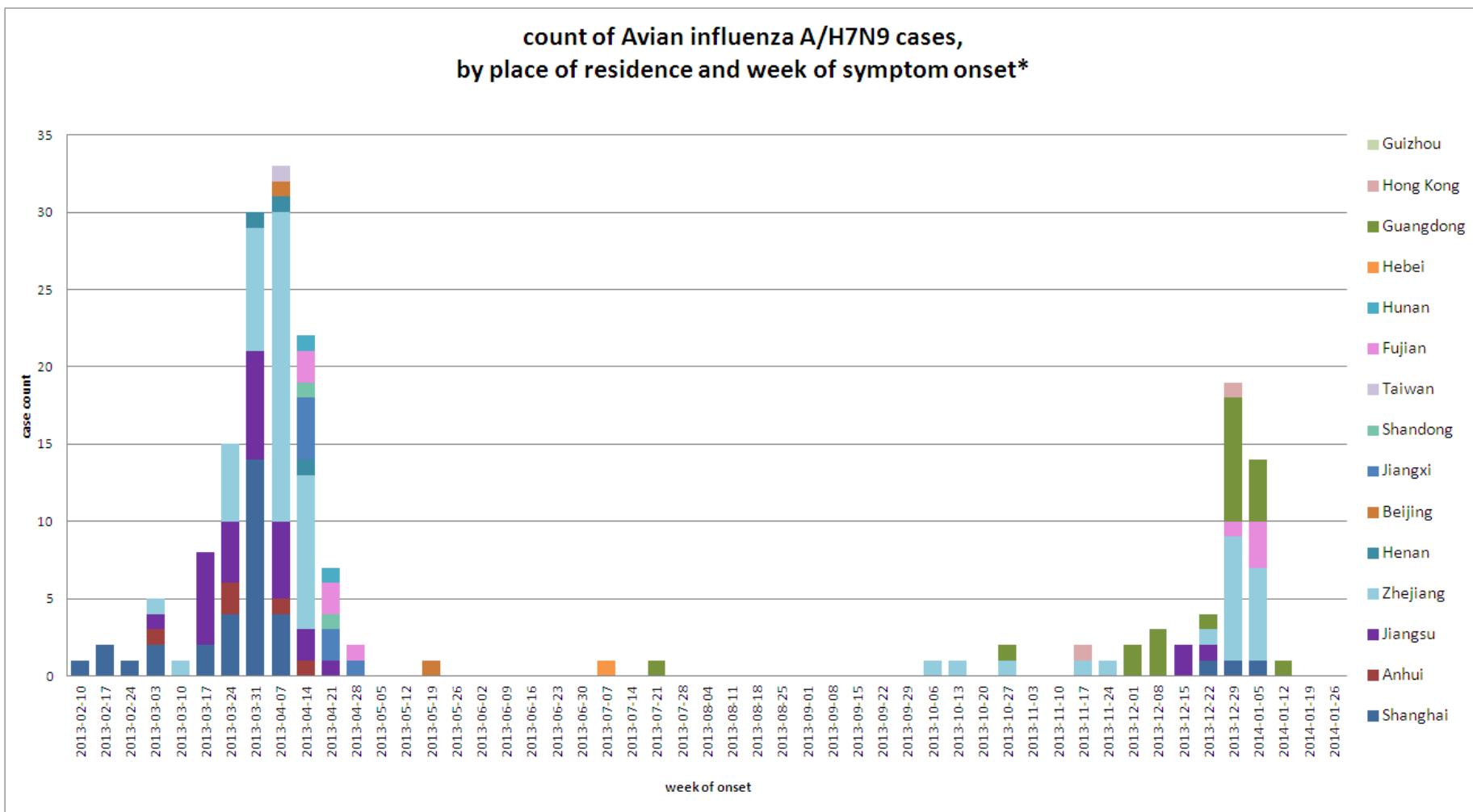
3. ACTION AND ADVICE [abbreviated]

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.

Influenza & Emerging Respiratory Pathogens
BC Centre for Disease Control

H7N9 Epidemic Curve



*Does not include: 1 Henan, 4 Jiangsu, 1 Guizhou, 3 Zhejiang, 2 Fujian, and 1 Anhui cases with unknown onset date; one asymptomatic case in Beijing.