Human infection with avian influenza A (H7N9) virus in China

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On 19 and 26 May 2017, the National Health and Family Planning Commission of China (NHFPC) notified WHO of 26 additional laboratory-confirmed cases of human infection with avian influenza A (H7N9) virus in China.

At the time of notification, there were two deaths, 24 case patients were diagnosed as having either pneumonia (n=8) or severe pneumonia (n=16). Twenty-four case patients were reported to have had exposure to poultry or live poultry market, and two had no known poultry exposure. No case clustering was reported.

The case patients were reported from Anhui, Beijing, Chongqing, Hebei, Hunan, Jiangsu, Shaanxi, Shanxi, Shandong, Sichuan, Zhejiang. This is the first-time cases (n=2) are reported in Shanxi.

The Chinese governments at national and local levels are taking public health measures which include:

- Control measures focusing on hygienic management of live poultry markets and cross-regional transportation
- Strengthening virology surveillance to better understand levels of virus contamination in the environment as well as mutations.

The number of human infections with avian influenza A (H7N9) and the geographical distribution suggest that the virus is spreading, and emphasizes that further intensive surveillance and control measures in both the human and animal health sector are crucial. Most human cases are exposed to avian influenza A (H7N9) virus through contact with infected poultry or contaminated environments, including live poultry markets. Although small clusters of cases of human infection with avian influenza A (H7N9) virus have been reported including those involving patients in the same ward, current epidemiological and virological evidence suggests that this virus has not acquired the ability of sustained transmission among humans. Therefore, the likelihood of further community level spread is considered low.

A diagnosis of infection with an avian influenza virus should be considered in individuals who develop severe acute respiratory symptoms while travelling in or soon after returning from an area where avian influenza is a concern.

WHO advises that travelers to countries with known outbreaks of avian influenza should avoid, if possible, poultry farms, contact with animals in live poultry markets, entering areas where poultry may be slaughtered, or contact with any surfaces that appear to be contaminated with feces from poultry or other animals. Travelers should also wash their hands often with soap and water, and follow good food safety and good food hygiene practices.

WHO encourages countries to continue strengthening influenza surveillance, including surveillance for severe acute respiratory infections (SARI) and influenza-like illness (ILI) and to carefully review any unusual patterns, ensure reporting of human infections under the IHR 2005, and continue national health preparedness actions.

Comment

Due to the combined lack of commercial diagnostic kits and reference biological materials (i.e. H7N9 RNA) also the most advanced clinical laboratories outside the influenza networks will be able to rapidly detect only an “unsubtypable Influenza A virus” infection. The laboratory diagnostic of this infection needs referral to
national and international labs involved in influenza laboratory networks. This will cause considerable delay, and some samples will not be sent to reference laboratories, which leads to an underreporting of H7N9 infections.

All positive but unsubtypable specimens of influenza A collected from humans should be promptly sent to influenza reference laboratories, according to national guidelines.

A list of Influenza WHO Collaborating Centre can be found at: http://www.who.int/influenza/gisrs_laboratory/collaborating_centres/list/en/

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