Human infection with avian influenza A(H5) viruses

Human infection with avian influenza A(H5N1) virus
Between 6 October and 12 October 2017, no new cases of human infection with avian influenza A(H5N1) virus were reported to WHO in the Western Pacific Region.

As of 12 October 2017, a total of 238 cases of human infection with avian influenza A(H5N1) virus were reported from four countries within the Western Pacific Region since January 2003 (Table 1). Of these cases, 134 were fatal, resulting in a case fatality rate (CFR) of 56%. The last case was reported from China and its onset date was 27 December 2015 (1 case, no death).

Table 1: Cumulative number laboratory-confirmed human cases (C) and deaths (D) of influenza A (H5N1) virus infection reported to WHO, by date of onset (January 2003 to 12 October 2017), Western Pacific Region.

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<td>Cambodia</td>
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<td>Viet Nam</td>
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<td>2</td>
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<td>Total</td>
<td>171</td>
<td>95</td>
<td>9</td>
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<td>6</td>
<td>30</td>
<td>17</td>
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Globally, from January 2003 to 27 September 2017, there were 860 cases of human infection with avian influenza A(H5N1) virus reported from 16 countries worldwide. Of these 860 cases, 454 were fatal (CFR of 52.8%). The last case was reported from Indonesia on 26 September 2017.
(source: http://www.who.int/influenza/human_animal_interface/H5N1_cumulative_table_archives/en/)

Human infection with avian influenza A(H5N6) virus
Between 6 October and 12 October 2017, no new cases of human infection with avian influenza A(H5N6) virus were reported to WHO in the Western Pacific Region. The last case was reported from China on 1 December 2016 (source: http://www.who.int/csr/don/07-december-2016-ah5n6-china/en/). A total of 16 laboratory-confirmed cases of human infection with influenza A(H5N6) virus, including six deaths, have been reported to WHO from China since 2014.

Public health risk assessment for human infection with avian influenza A(H5) viruses
Whenever avian influenza viruses are circulating in poultry, sporadic infections and small clusters of human cases are possible in people exposed to infected poultry or contaminated environments; therefore sporadic human cases are not unexpected.

With continued incidence of avian influenza due to existing and new influenza A(H5) viruses in poultry, there is a need to remain vigilant in the animal and public health sectors. Community awareness of the potential dangers for human health is essential to prevent infection in humans. Surveillance should be continued to detect human cases and early changes in transmissibility and infectivity of the viruses.

For more information on confirmed cases of human infection with avian influenza A (H5) virus reported to WHO, visit: http://www.who.int/influenza/human_animal_interface/en/

For information on monthly risk assessments on Avian Influenza, visit: http://www.who.int/influenza/human_animal_interface/HAI_Risk_Assessment/en/
Human infection with avian influenza A(H7N9) virus in China

Between 6 October and 12 October 2017, no new cases of human infection with avian influenza A(H7N9) virus were published in Disease Outbreak News. As of 12 October 2017, a total of 1,562 laboratory-confirmed human infections with avian influenza A(H7N9) virus have been reported to WHO since early 2013 and published in Disease Outbreak News.

Between 6 October and 12 October, China CDC has not reported any additional human cases with highly pathogenic avian influenza (HPAI) A(H7N9) virus, which have mutations in the hemagglutinin gene indicating a change to high pathogenicity in poultry. The total number of human cases with HPAI A(H7N9) virus during 5th wave remains at 28. These 28 cases were from Guangdong, Guangxi, Hebei, Hunan, Shaanxi and Taiwan with illness onset date before July 2017. No increased transmissibility or virulence to human cases has been detected related to the HPAI A(H7N9) virus. (http://www.chinaivdc.cn/cnic/en/Surveillance/WeeklyReport/201708/t20170828_151326.htm).

WHO is continuing to assess the epidemiological situation and will conduct further risk assessments as new information becomes available. The number and geographical distribution of human infections with avian influenza A(H7N9) viruses in the fifth epidemic wave (since October 2016) is greater than previous waves.

Further sporadic human cases of avian influenza A(H7N9) virus infection are expected in affected and possibly neighbouring areas. Should human cases from affected areas travel internationally, their infection may be detected in another country during or after arrival. However, if this were to occur, community level spread is considered unlikely as the virus does not have the ability to transmit easily among humans.

To date, there has been no evidence of sustained human-to-human transmission of avian influenza A(H7N9) virus. Human infections with the A(H7N9) virus are unusual and need to be monitored closely in order to identify changes in the virus and transmission behaviour to humans as this may have serious public health impacts.

For more information on human infection with avian influenza A(H7N9) virus reported to WHO: http://www.who.int/influenza/human_animal_interface/influenza_h7n9/en/

Animal infection with avian influenza virus

Between 6 October and 12 October, six outbreaks of HPAI in Taiwan, China were reported to OIE.

Four of these outbreaks of HPAI A(H5N2) in poultry were reported from Yunlin County, Changhua County and Yunlin County. The outbreaks in Yunlin County and Changhua County started 9 January and 21 February 2017 respectively and are ongoing. In total, three native chickens and three ducks were susceptible and all of them died. The outbreaks in ducks on farms in Yunlin County started 13 September and 14 September 2017 and are still ongoing. A total of 7,333 susceptible birds were culled (2,744 and 4,589 respectively). Thorough cleaning and disinfection has been conducted after the stamping out operation. Surrounding poultry farms within a 3km radius of the infected farm have been placed under intensified surveillance for three months.
Two outbreaks of HPAI A(H5N8) in poultry were reported from Yunlin County and Pingtung County. The outbreaks started 9 January and 4 March 2017 respectively, and are still ongoing. One duck was reported as susceptible in each and both of them died. Surrounding poultry farms within a 3km radius of the infected farm have been placed under intensified surveillance.

http://www.oie.int/wahis_2/public/wahid.php/Diseaseinformation/WI/index/newlang/en

For more information on animal infection with avian influenza viruses with potential public health impact, visit:

- OFFLU: http://www.offlu.net/

Other updates

WHO Risk Assessment of human infection with avian influenza A(H7N9) virus
15 June 2017 posted on WHO website
http://www.who.int/influenza/human_animal_interface/Influenza_Summary_IRA_HA_interface_06_15_2017.pdf?ua=1

Recommended composition of influenza virus vaccines for use in the 2017-2018 northern hemisphere influenza season. 2 March 2017

Recommended composition of influenza virus vaccines for use in the 2017 southern hemisphere influenza season. 29 September 2016

Antigenic and genetic characteristics of zoonotic influenza viruses and candidate vaccine viruses developed for potential use in human vaccines—28 September 2017
http://www.who.int/influenza/vaccines/virus/characteristics_virus_vaccines/en/

H7N9 situation update (FAO) — 20 September 2017

TIPRA Frequently Asked Questions—March 2017