

## Overview of epidemiology and clinical manifestations of H5N1 infection

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### *1. Global situation*

From 1 December 2003 to 30 April 2006, 9 countries reported a total of 205 laboratory-confirmed human cases of H5N1 avian influenza to WHO. The curve of incident human H5N1 cases shows 3 peaks during the period from December 2003 to April 2006, roughly corresponding to winter and spring in the northern hemisphere. The number of new countries reporting human H5N1 cases has increased dramatically after October 2005, following

the geographical extension of outbreaks among avian populations.

The median age of confirmed cases was 20 years. The age of cases ranged from 3 months to 75 years ( $n = 202$ ). Half of the cases occurred among people aged <20 years; 90% occurred among those aged <40 years. The overall sex ratio of males ( $n = 97$ ) to females ( $n = 106$ ) was 0.9, but this varied across age groups. For all age groups, the median duration from onset of illness until hospitalization was 4 days (range = 0-18). Most patients presented for care within the first week after onset of illness. The overall case-fatality rate was 56%. The highest case fatality rate reported was 73%; this occurred among those aged 10-19 years ( $n = 49$ ). The lowest case-fatality rate was 18%; this occurred among those aged  $\geq 50$  years. The overall case-fatality rate was lower in 2005 (43%) than in 2004 (73%) or in 2006 to date (63%). For the period from December 2003 to April 2006, the median duration from onset of symptoms until death was 9 days (range = 2-31 days);

## *2. Avian Influenza situation and clinical manifestation in Vietnam,*

Since the identification of the first case of influenza A(H5N1) on 26 December 2003 until now, 3 epidemic waves has been recognized in Vietnam with a total of 93 cases that occurred in 32 provinces/cities, among them 42 cases were fatal:

- First wave: from December 2003 to March 2004, 23 confirmed cases were identified in 13 provinces/cities, including 16 deaths.
- Second wave: from July 2004 to August 2004, 4 cases were identified in 3 provinces/cities and all died.
- Third wave: from December 2004 to 14 November 2005, 66 confirmed cases were identified in 25 provinces/cities, including 22 deaths.

No new outbreaks in humans and poultry have been reported since Mid November and Mid December 2005 respectively.

The data from 41 H5N1 patients shows that it's initial symptoms are fever (97.6%), myalgia (78.1%), cough (70.7%). Respiratory findings are crepitation (82.9%), chest pain (63.4%) and respiratory failure (51.2%). Radiographic findings usually appear on the 4<sup>th</sup> day, at the peak at the end of 1<sup>st</sup> week and fade on the 3<sup>rd</sup> week. Patients with large radiographic lesions, was severe and at high fatal risk.

As the virus is now considered endemic in poultry in some parts of the world and continuing to spread to birds in new areas, sporadic human cases will continue to occur. Moreover, the widespread distribution of the H5N1 virus in poultry and the continued exposure of humans suggest that the risk of virus evolving into a more transmissible agent in humans remains high. Therefore, the sharing of data may be seen as part of an early warning system that will collectively defend all countries against a common threat.