

Emerging and Reemerging Infectious Diseases, Region of the Americas

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Update on Avian Influenza

The avian flu caused by the Influenza A virus, Subtype H5N1, has produced few human cases to date. Since our last update of 5 March 2004, 1 new human case of avian influenza has been reported, which brings the total to 34 cases and 22 deaths. The Asian countries that have reported human cases in humans from this subtype are Viet Nam (with 23 human cases and 15 deaths) and Thailand (with 11 human cases and 7 deaths). Epizootics from this subtype have been reported in various species of birds in 8 Asian countries. Other countries have reported influenza outbreaks in birds, but these do not correspond to highly pathogenic H5N1 (see Table 1).

The only available clinical information on the disease in humans is on the cases detected during the current epidemic and the 1997 epidemic in Hong Kong. The fatality rate among hospitalized cases is high, with death occurring between 6 and 29 days after the onset of symptoms (the average being 9 days). To treat and prevent H5N1 flu, the early use of neuraminidase inhibitors (oseltamivir) has demonstrated its effectiveness.

In local hospitals, patients should be isolated and protective measures should be taken to avoid airborne (small-particle) and contact transmission in accordance with all available means. There is still no evidence to suggest airborne transmission of the disease in the current outbreaks in Thailand and Viet Nam. Nevertheless, because of the high mortality of the disease and the possibility of the virus mutating to cause efficient human-to-human transmission, WHO is currently recommending the use airborne and contact precautions. During the 1997 outbreak in Hong Kong of avian influenza A (H5N1) in humans, taking precautions to avoid airborne and contact transmission in hospitals indeed demonstrated its effectiveness, which supports the aforementioned recommendation.

Implementing measures for the containment of the spread of an influenza pandemic virus and reducing its burden on the population will require time and a major coordinated global effort. During the initial phase of an influenza outbreak with pandemic potential, efficient surveillance, focused and timely public health measures may slow down the national and international spread of the virus, thereby buying precious time for global pandemic response measures to be implemented.

In this context, WHO, in collaboration with national and international partners, will hold a global consultation on priority public-health interventions before and during the early stage of an influenza pandemic from 16th to 18th March 2004. The consultation will bring together experts from all regions on influenza, public health, health economics, health policy, hospital management, drugs and pharmaceuticals, infection control measures, disease surveillance and modeling, and risk communication. Objectives are to review the following areas:

- Global response to the current avian influenza outbreak in Asia.
- Issues on influenza vaccine use and availability before and during influenza pandemics, and identify priority actions by various stakeholders to increase access.
- Issues on antiviral use and availability before and during influenza pandemics, and identify priority actions by various stakeholders to increase access.
- Possible impact and feasibility of implementing national and international public health interventions, including travel recommendations, to slow down the spread of pandemic influenza viruses.
- Issues related to surveillance of human influenza before and during pandemics, including monitoring of strains in human cases and early detection of changes in influenza subtypes.

Table 1: Current Situation of Avian Influenza—Human Cases and Epizootics (as of 11 March 2004)						
Country	Epizootics		Virus subtype	Number of confirmed human cases		Comments
	Number of provinces affected	Species of birds affected	identified	Cases	Deaths	Comments
Cambodia	4 out of 19	Chickens: mostly laying/breeder hens	H5N1	0	0	Epizootic out of control.
Canada	1 out of 10	Chickens	H7N3	0	0	Laboratory results show strains of both low and high pathogenicity present within this group of birds.
China	16 out of 31	Ducks, chickens, geese, one peregrine falcon in Hong Kong	H5N1	0	0	Quarantine now lifted in 18 areas where sanitary extermination tasks were concluded at

						least 21 days ago.
Indonesia	12 out of 26	Laying and breeding hens.	H5N1	0	0	Epizootic widespread, with new affected area in West Kalimanta.
Japan	4 out of 9	Egg-laying poultry	H5N1	0	0	Confirmed outbreaks in Kyoto and Hyogo.
Laos	5 out of 17	Laying hens	H5	0	0	Positive results for Influenza A (H5) in farms from 4 provinces and in Vientinae.
Pakistan	1 out of 7	Egg-laying poultry	H7	0	0	Outbreak confirmed at end of January.
South Korea	6 out of 14	Chickens, ducks	H5N1	0	0	Ongoing investigation.
Taiwan	1 out of 21	Laying hens, colored-feather native chickens	H5N2	0	0	Epizootic out of control.
Thailand	23 out of 76 (localization unavailable for 24 additional outbreaks reported to OIE)	Chickens (broilers/fryers, laying hens), native poultry, ducks, geese, turkeys, ostrich, quail, peacocks	H5N1	11	7	Epizootic out of control.
USA	5 out of 50	Chickens	H7N2	0	0	Low pathogeneity.
			H2N2	0	0	Low pathogeneity.
			H5N2	0	0	High pathogeneity; ongoing elimination measures.
Viet Nam	57 out of 64	Parent stock for	H5N1	22	15	Investigation of

	broilers/fryers (chickens)			family cluster of confirmed cases of subtype H5N1 showed no genetic recombination with human influenza virus.
Total		33	22	

Sources

- <u>Avian Influenza A (H5N1)—Update 32: Situation (human) in Thailand</u> (9 March 2004). Geneva: World Health Organization (WHO).
- WHO Consultation on Priority Public-Health Interventions before and during an <u>Influenza Pandemic (Geneva, 16-18 March 2004)</u>. Geneva: World Health Organization (WHO).
- <u>Update on Avian Influenza in Animals in Asia</u>. Alerts—Disease Information. Paris: World Organization for Animal Health (OIE). (page routinely updated)
- <u>Information about Influenza A H7 Viruses</u>. Atlanta: Centers for Disease Control and Prevention (CDC).
- <u>Avian Influenza in the United States</u>. Washington, DC: United States Department of Agriculture, Animal and Plant Health Inspection Service (USDA/APHIS).
- Flu Information: Avian Influenza / Renseignements sur la grippe: La grippe aviaire:
 English | français. Ottawa: Health Canada / Santé Canada.

Additional Information

- <u>Avian Influenza</u>. Geneva: World Health Organization (WHO).
- World Organization for Animal Health (OIE) (Paris).
- Food and Agriculture Organization of the United Nations (FAO) (Rome).