

Auckland Regional Public Health Service

Rātonga Hauora ā Iwi o Tamaki Makaurau



Working with the people of Auckland, Counties Manukau and Waitemata

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International situation

Indonesia [WHO, 10/09/07](#). The Ministry of Health of Indonesia has announced a new case of human infection of H5N1 avian influenza. A 33-year-old male from Riau Province (see [map](#)) developed symptoms on 25 August, was hospitalized on 2 September and died in hospital on 6 September. His source of exposure is currently under investigation. Of the 106 cases confirmed to date in Indonesia, 85 have been fatal.

Avian outbreaks:

- **China** [OIE, 15/09/07](#). An outbreak of H5N1 avian influenza has been reported from China, the first for the country since May 2007. The outbreak dates from 5 September 2007 in the Guangoong province (see [map](#)), which is a border province next to Hong Kong. The outbreak involved ducks with 32630 susceptible birds.
- **Germany** [OIE, 12/09/07](#). In Germany a duck farm with 170,856 susceptible animals reported an H5N1 outbreak starting on 10 September 2007. The outbreak was in the southern Bayern province (see [map](#)).
- **Russia** [OIE 07/09/07](#). In the Russian province of Krasnodar (see [map](#)), on the western border of Russia, an outbreak dating from 28 August 2007 has been reported. It involved a layer poultry farm with 161,640 birds.
- **Vietnam** [OIE 14/09/07](#). Vietnam has recently reported 8 outbreaks of H5N1 avian influenza which date from 5 July through to 20 August 2007. The majority of the outbreaks involved ducks, with the susceptible bird populations ranging in size from 510 to 8527. The provinces involved were Ninh-Binh, Dong Thap (3 outbreaks), Quang Binh, Thai Nguyen, Lai Chau and Tra Vinh (see [map](#)). These provinces span the length of Vietnam from Lai Chau, Thai Nguyen and Ninh-Binh in the north, Quang Binh in the middle and Dong Thap and Tra Vinh in the south.

Background

PPE and antiviral drug use during hospitalisation for avian or pandemic influenza [Swaminatham et al, Emerg Infect Dis 2007 Oct; \[Epub ahead of print\]](#). In this simulation study a patient with suspected avian or pandemic influenza presented to 9 Australian hospital emergency departments where patient-staff interactions during the first 6 hours of hospitalization were observed. Based on World Health Organization definitions and guidelines, the mean number of "close contacts" of the patient was 12.3 (range 6-17; 85% HCWs); mean "exposures" were 19.3 (range 15-26). Overall, 20-25 PPE sets were required per patient, with variable HCW compliance for wearing these items (93% N95 masks, 77% gowns, 83% gloves, and 73% eye protection). Up to 41% of HCW close contacts would have been eligible for postexposure antiviral prophylaxis. The authors suggest these data indicate that many national stockpiles of PPE and antiviral medication would be inadequate in the face of a pandemic.

Pandemic Postings

Current global avian influenza activity
Confirmed human cases of avian influenza A/(H5N1), 1 - 10 September 2007,¹ and outbreaks of highly-pathogenic avian influenza H5N1 in poultry 27 August -15 September 2007,² by country. The complete list of human cases and poultry outbreaks to date can be found on the [ARPHS website](#).

	Human ¹		Poultry ²
	cases	deaths	outbreaks
China	-	-	1
Germany	-	-	1
Indonesia	1	1	-
Russia	-	-	1
Vietnam	-	-	8
TOTAL	1	1	11

Notes:

- 1 As reported by [World Health Organization](#)
- 2 As reported by the [World Organisation for Animal Health \(OIE\)](#).

Background (contd)

Chlorine inactivation of H5N1 avian influenza virus [Rice et al, Emerg Infect Dis 2007 Oct; \[Epub ahead of print\]](#). Free chlorine concentrations equivalent to those used in drinking water treatment have been found to inactivate the H5N1 virus within 1 minute. The authors suggest this is important in considering the risk that water contamination might pose to human and animal populations.

H5N1 viruses have made "modest" adaptation to human hosts [Finkelstein et al, J Virol 2007; 81:10292](#). This paper reports a study in which researchers identified markers that discriminate human influenza viruses from avian influenza viruses, and found that a subset of these persistent host markers exist in all human pandemic influenza virus sequences from 1918, 1957, and 1968. For a few of these markers, human H5N1 influenza viruses are significantly more likely to contain the amino acid predominant in human strains than avian H5N1 influenza viruses. The authors suggest that this sporadic enrichment of amino acids present in human-hosted viruses may indicate that some H5N1 viruses have made modest adaptations to their new hosts in the recent past.

Monitoring influenza-like illness using data obtained directly from the population via the internet [van Noort et al, Eurosurveillance Monthly Release 2007 July/Aug](#). Influenza-like illness (ILI) activity in Europe is traditionally monitored using sentinel networks of mainly primary care physicians. This paper reports an alternative system, Gripenet, operating in the Netherlands, Belgium and Portugal, that monitors ILI activity among participating members of the general public who make weekly reports on a website of any symptoms experienced. ILI incidence is determined on the basis of a uniform case definition. This data provides similar incidence curves compared to the traditional sentinel surveillance system. The authors suggest that whereas EISS data is validated by virology tests, the internet reporting of Gripenet provides a fast and flexible monitoring system that allows for comparison of ILI rates between countries.

Confronting potential influenza A (H5N1) pandemic with better vaccines [Haque et al, Emerg Infect Dis 2007 Oct; \[Epub ahead of print\]](#). Paper reviewing vaccination strategies for responding to an influenza pandemic.

Ministry of Health advice line: **0800 AVN FLU (286 358)**

MAF Hotline (for suspect animal cases): **0800 809 966**

Disclaimer: Background material is listed in Pandemic Postings to alert recipients to new publications on highly-pathogenic avian and pandemic influenza topics. While efforts are made to maintain quality by only including material from reputable sources, it is beyond the scope of this bulletin to independently establish the veracity of this material, or to place the material within the local pandemic planning context: such assessments are left to the judgement of the readership. Conclusions made by authors of material cited in this bulletin do not necessarily represent policy or opinions of Auckland Regional Public Health Service, of Waitemata, Auckland or Counties Manukau DHBs, or of the Ministry of Health.