

Avian Influenza – Update 3 July 2008

Background – What is bird flu?

Avian Influenza (Bird Flu) is an infectious disease of birds, caused by type A strains of the influenza virus. In poultry, avian influenza viruses may cause two distinctly different forms of disease – one common and mild, the other rare and highly lethal.

In the mild form, signs of illness may be seen only as ruffled feathers, reduced egg production, or mild effects on the respiratory system. In contrast, the second highly pathogenic form is difficult to miss. First identified in Italy in 1878, highly pathogenic avian influenza is characterised by sudden onset of severe disease in affected birds/flocks, rapid contagion, and a mortality rate that can approach 100% within 48 hours.

There are many different subtypes of influenza A virus. The most virulent are called highly pathogenic avian influenza (HPAI) and can reach epidemic levels among birds. Of these, subtype H5, and more particularly subtype H5N1 currently, pose the greatest concern for human health. Two other subtypes – H9 and H7 – have caused illness in people but neither has caused outbreaks in poultry as severe as H5N1 related ones.

Outbreaks of the highly pathogenic H5N1 type of avian influenza (currently known as 'Bird Flu') have been occurring since December 2003. These outbreaks of H5N1 Bird Flu began in south-east Asia in mid-2003, and have now spread to parts of Europe. They are the largest and most severe outbreaks on record.

During 2005, an additional and significant source of international spread of H5N1 virus in birds became apparent for the first time. Scientists are increasingly convinced that at least some migratory waterfowl are now carrying the H5N1 virus in its highly pathogenic form, sometimes over long distances, and introducing the virus to poultry flocks in areas that lie along migratory routes.

Situation in Asia

Outbreaks of the highly pathogenic avian influenza (H5N1) have been reported throughout South-East Asia since December 2003. Countries in Asia which have had outbreaks of this strain of avian influenza in poultry include the Republic of Korea, Vietnam, Japan, Thailand, Cambodia, the Lao People's Democratic Republic, Indonesia, China, Malaysia, Russia and Kazakhstan.

Japan, the Republic of Korea, and Malaysia have announced control of their poultry outbreaks and are now considered free of the disease. In the other affected areas, outbreaks are continuing with varying degrees of severity.

Situation outside Asia

In late July 2005, highly pathogenic H5N1 avian influenza virus was confirmed to have spread geographically beyond its origin in Asia. Currently there is evidence of rapid geographical spread of the H5N1 virus infection in both wild and domestic birds.

Cases have been reported in many European and African countries. Three instances have now been reported in the United Kingdom: -

During October 2005, 53 finches imported from Taiwan infected with H5N1, died whilst in quarantine in Essex. There is no evidence of transmission to other species in the facility, and as none of the birds were released, the UK's disease free status remains in place.

On 7 April 2006 H5N1 infection was confirmed in a wild swan found in Fyfe, Scotland. Authorities in Scotland placed a 3 km protection zone and a 10km surveillance zone around the site where the bird was found.

On 3 February 2007 the Veterinary Laboratories Agency (VLA) confirmed an outbreak of the H5N1 strain of avian influenza in poultry found dead on a farm near Lowestoft in Suffolk. It is similar to the virus that was found in Hungary in January.

Despite these incidents, the current level of risk to the general population from H5N1 remains extremely low.

Human Infection with Avian H5N1 Influenza Virus (Bird Flu)

Avian Influenza is a disease of birds and whilst it can pass very rarely and with difficulty to humans, this requires extremely close contact with infected birds, particularly faeces.

The spread of H5N1 to poultry in new areas is of concern as it increases opportunities for further human cases to occur. However, all evidence to date indicates that the H5N1 virus **does not spread easily from birds to infect humans. There is very limited evidence of human-to-human transmission among any reported cases in Asia.**

To date there have been 385 cases of human H5N1 infection, with a total of 243 deaths, reported to the World Health Organisation (WHO).

WHO level of human pandemic alert remains unchanged at **phase 3**: a virus new to humans is causing infections, but does not spread easily from one person to another.

Travel Advice

The World Health Organisation (WHO) does not currently recommend any restrictions on travel to areas experiencing outbreaks of highly pathogenic

H5N1 avian influenza in birds, including countries which have reported associated cases of human H5N1 infection. Although there is no restriction on travel to any of the areas where avian flu is being reported, travellers are advised to avoid contact with high-risk environments in affected countries.

WHO continues to recommend that travellers to H5N1 affected areas should avoid contact with live animal markets and poultry farms, and any free-range or caged poultry. Large amounts of the virus are known to be excreted in the droppings from infected birds. Populations in affected countries are advised to avoid contact with dead migratory birds or wild birds showing signs of disease.

Direct contact with infected poultry, or surfaces and objects contaminated by their droppings, is considered the main route of human infection. Exposure risk is considered highest during slaughter, de-feathering, butchering, and preparation of poultry for cooking. There is no evidence that properly cooked poultry or poultry products can be a source of infection.

In Northern Ireland, DHSSPS (the Department of Health, Social Services and Public Safety), DARD (the Department of Agriculture and Rural Development) and HM Revenue and Customs have produced a leaflet and poster giving advice to people who may be travelling to, or returning from, areas/ countries affected by H5N1 infection. Please consult these information resources for further information.

Latest advice relating to travel to or from countries affected by H5N1 can also be accessed through the website of the UK Foreign and Commonwealth Office www.fco.gov.uk and the website of the National Travel Health Network www.nathnac.org.

Additional sources of information

Additional information relating to all aspects of highly pathogenic avian influenza (H5N1) infection can be accessed through the following websites:

DARD Avian Flu Information Link

<http://www.dardni.gov.uk/index/animal-health/animal-disease-control-and-prevention/avian-influenza.htm>

DEFRA Avian Flu Information Link

<http://www.defra.gov.uk/animalh/diseases/notifiable/disease/ai/index.htm>

Health Protection Agency

http://www.hpa.org.uk/infections/topics_az/influenza/avian/default.htm

Communicable Disease Surveillance Centre (NI)

<http://www.cdscni.org.uk/>

World Health Organisation

<http://www.who.int/topics/en/>