



Avian influenza A(H5N8) in the UK: risk assessment

Background

Avian influenza A(H5N8) is an emergent, highly pathogenic avian influenza (HPAI) virus that affects birds and was first reported in January 2014. During 2014, HPAs of subtype H5 caused outbreaks in poultry in Europe, North America and East Asia. There is some evidence of sub-clinical infections in wild birds. In November 2014 an outbreak of HPAI A(H5N8) occurred on a duck farm in East Yorkshire. There were no human infections related to the 2014 HPAI A(H5N8) outbreak in East Yorkshire.

In 2015 two HPAI strains, HPAI A(H5N2) and HPAI A(H5N8), were identified in both wild birds and poultry in the US and Canada. These two strains caused poultry outbreaks across 17 states of the US, affecting over 11 million birds. Despite widespread outbreaks in poultry and exposure of humans, follow-up studies of contacts did not identify illness in humans.

In 2016, a significant number of EU countries, as well as Russia, have reported the identification of HPAI A(H5N8) in a variety of wild bird species, including migratory birds; these include Croatia, Austria, Poland, Denmark, France, The Netherlands, Sweden, Romania and Republic of Ireland. The first report of HPAI A(H5N8) in the EU in 2016, following previous detection in the EU in early 2015, was made on 26 October 2016; Hungarian authorities reported detection of HPAI A(H5N8) in a wild (mute) swan in an area which is a well-known rest place for migratory birds at this time of year. Subsequently, in early November, Hungary confirmed an outbreak of HPAI A(H5N8) at a commercial turkey farm located close to wetlands. As of 8 March 2017, **over 900 HPAI A(H5N8) outbreaks in poultry had been reported to the EU.**

The viruses detected in Europe in 2016/17 and those detected in North America in 2014/15 are all closely related but distinguishable. Samples of the viruses detected in the 2014 East Yorkshire outbreak were analysed for mutations that would make them more pathogenic for humans and were found to be predominantly avian-adapted, with a low affinity for humans (Hanna A et al, *Emerging Infectious Diseases*; May 2015).

It is normal practice to monitor for 10 days since last exposure people who have been potentially exposed in affected premises or having direct contact with diseased birds or poultry and their carcasses, dependent on the local risk assessment, in order to document any relevant symptoms. To date, no human infections with this virus have ever been reported world-wide.

On 6th December 2016, the Chief Veterinary Officer (CVO) declared a Prevention Zone to help protect poultry and captive birds from HPAI A (H5N8) which had been observed only in other European countries at that time. **A prevention zone remains in place in England until the end of April 2017.** On 16th December 2016, CVO confirmed an outbreak of HPAI A (H5N8) at a Turkey Farm in Lincolnshire. As of 20th March 2017, there had been 10 confirmed outbreaks among avian species and 26 wild bird incidents across the UK. The risk to public health has been reviewed and remains unchanged.

Risk to the General Public

The risk of HPAI A(H5N8) infection to UK residents in the UK is **very low**.

The risk of HPAI A(H5N8) infection to UK residents who are travelling to countries currently affected is **very low**.

Travellers to affected countries should follow the advice provided below around reducing exposure to poultry and wild birds. **The NaTHNaC website** provides further travel advice.

Risk to people occupationally exposed

There have been no reported cases of human infection amongst farm workers, or those involved in the culling, clean-up and disposal of infected birds during previously reported HPAI A(H5N8) incidents. However, there is a theoretical risk of human infections due to occupational exposure, and a precautionary approach is advised. This was reviewed in February 2017, based on available information; use of appropriate Personal Protective Equipment (PPE), continues to be recommended for all those exposed during incidents as part of **interim recommendations specific to Avian Influenza A (H5N8) incidents**. The Health and Safety Executive (HSE) provide **guidance on the appropriate PPE** for people who are occupationally exposed.

The risk to persons occupationally exposed to HPAI A(H5N8) is slightly higher than for the general public, but is considered to be low. However, when appropriate interventions are implemented, such as use of full PPE, this risk is considered to be **very low**. However, standard health advice will be offered to those who may have been occupationally exposed.

Advice for travellers and the public

No specific restrictions to travel are advised. However, to help reduce the risk of exposure and infection, travellers to countries affected by an avian influenza outbreak should be aware of the following general travel advice:

- do not pick up or touch sick, dying or dead poultry or wild birds
- avoid contact with surfaces contaminated with bird faeces
- avoid untreated bird feathers (such as those found in the environment) and other bird waste
- do not eat or handle undercooked or raw poultry, egg or duck dishes
- do not attempt to bring any poultry products back to the UK
- maintain good personal hygiene with regular hand washing with soap and use of alcohol-based hand rubs.

In Great Britain, the Animal and Plant Health Agency (APHA) has advised that the majority of dead wild birds would not have Avian Influenza infection, based on surveillance activities. However, members of the public should follow routine precautions to prevent any other risks to their health, by following the above advice about contact with avian species, bird feathers, and bird waste.

PHE actions

There are currently no cases recorded in humans; however, further outbreaks in avian species are possible.

PHE will continue to monitor international avian influenza A(H5N8) activity and work with colleagues in the APHA and Defra to respond to any further outbreaks.

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