



Risk assessment of avian influenza A(H5N1) – Second update

Background

From 2003 until 16 May 2017, 859 confirmed human cases and 453 deaths due to avian influenza A(H5N1) have been reported to WHO, from 16 countries.¹ The most recent case was reported by WHO in an update published on the 16 May 2017 and occurred in Egypt. Egypt is the only country to have reported human cases since 2015.

Highly pathogenic avian influenza (HPAI) A(H5N1) was first reported in the Far East, but is now enzootic in poultry across Asia and Africa. Although all human cases of A(H5N1) since 2015 have been reported from Egypt, outbreaks of HPAI A(H5N1) have occurred amongst poultry in a number of other countries during 2016/17 including in West Africa (Nigeria, Niger, Libya, Cameroon, Cote d'Ivoire) the Middle East (Iran) and Asia (Vietnam, Nepal, India, Bangladesh, Cambodia, Nepal).²

During 2015 there was a peak of human cases occurring in Egypt. Backyard farming is a common practice in Egypt and the vast majority of human cases have reported contact with backyard poultry; there is no reported evidence of sustained human-to-human transmission. No major changes have been detected in recently characterised viruses from human cases.³

The increase in human cases may be attributed to: increased circulation in backyard poultry, lower public health awareness of the risks, and seasonal factors such as closer proximity to birds due to cold weather.² It is also suggested that co-circulation of A(H9N2) may be involved through multiple mechanisms in the enhanced spread of A(H5N1) amongst poultry in Egypt.⁴

Risk assessment

The risk of influenza A(H5N1) infection to UK residents within the UK is **very low**.

The risk of influenza A(H5N1) infection to UK residents who are travelling to Egypt, or other affected areas is **very low** but may be higher in those with exposure to specific risk factors within the region, such as poultry.

The level of risk of influenza A(H5N1) infection in those who arrive in the UK from Egypt, or other affected areas and meet the case definition is **low** but warrants testing.

The probability that a cluster of cases of severe respiratory illness in the UK is due to influenza A(H5N1) is **very low**, but warrants testing. A history of travel to Egypt or other affected areas would increase the likelihood of influenza A(H5N1).

If there is good compliance with guidance on infection control measures, the risk to healthcare workers caring for cases of influenza A(H5N1) in the UK is **very low**. However, severe respiratory illness in healthcare workers caring for cases of influenza A(H5N1) warrants testing.

The risk to contacts of confirmed cases of influenza A(H5N1) infection is **low** but warrants follow up in the seven days following exposure and urgent investigation of any new febrile or respiratory illness.

Advice for travellers

No specific restrictions to travel are advised. However, to help reduce the risk of infection **NaTHNaC** advise that travellers:

- avoid close or direct contact with live poultry
- avoid visiting live bird and animal markets (including 'wet' markets) and poultry farms
- avoid contact with surfaces contaminated with animal faeces
- avoid untreated bird feathers and other animal and bird waste
- do not eat or handle undercooked or raw poultry, egg or duck dishes
- do not pick up or touch dead or dying birds
- 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.

Travellers to Egypt or the affected areas should be alert to the development of signs and symptoms of influenza for seven days following their return. It is most likely that

anyone developing a mild respiratory tract illness during this time is suffering from seasonal influenza or other commonly circulating respiratory infection. However, if they become concerned about the severity of their symptoms, they should seek appropriate medical advice and inform the treating clinician of their travel history.

Advice for clinicians and health professionals

Clinicians should retain a high level of suspicion of influenza A(H5N1) when managing patients with confirmed or suspected influenza A and a history of travel to Egypt or other affected areas in the seven days before the onset of symptoms.

Guidance on the public health management of possible cases and their contacts is available on the PHE website: <https://www.gov.uk/government/publications/avian-influenza-guidance-and-algorithms-for-managing-human-cases>. Contact the local health protection team to discuss possible cases and testing criteria.

The local PHE Public Health Laboratory can provide advice on arranging testing for influenza A due to H5/H7: <https://www.gov.uk/government/collections/public-health-laboratories>

Guidance for the initial management of possible cases of avian influenza in primary care is available on the PHE website:

<https://www.gov.uk/government/publications/mers-cov-and-avian-influenza-primary-care>

Case Definition for possible cases of A(H5N1)

Clinical:

- a. Fever $\geq 38^{\circ}\text{C}$ AND lower respiratory tract symptoms (cough or shortness of breath) OR CXR findings of consolidation OR ARDS
OR
- b. Other severe illness suggestive of an infectious process.

AND

Exposure within 7 days of the onset of symptoms, consisting of:-

- a. Close contact (within 1 metre) with live, dying or dead domestic poultry or wild birds, including live bird markets, in an area of the world affected by avian influenza A(H5N1), or with any confirmed A(H5N1) infected animal.*
- b. Close contact (providing care/touching/speaking distance within 1 metre) with human case(s) of: - severe unexplained respiratory illness - unexplained illness resulting in death from listed areas.*

*Bangladesh, China, Egypt, Indonesia and Vietnam, plus countries listed at:
<http://www.oie.int/animal-health-in-the-world/update-on-avian-influenza>³

Further reading

- (1) Cumulative number of confirmed human cases for avian influenza A(H5N1) reported to WHO, 2003-2017 (16 May 2017)
- (2) World Organisation for animal health (OIE) Update on HPAI (2017)
- (3) WHO EMRO Weekly epidemiological monitor (22 March 2015)
- (4) ECDC Risk assessment of avian influenza A(H5N1) in Egypt, First Update (13 March 2015)

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