Public Health England

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

Background

From 2003 until 3 March 2015, 784 confirmed human cases and 429 deaths due to avian influenza A(H5N1) have been reported to WHO, from over 16 countries.[1] Egypt and Indonesia have reported the most human cases in total, with 292 and 197 cases respectively.

Although highly pathogenic avian influenza (HPAI) A(H5N1) was first reported in the Far East, it is now considered to be endemic in Egyptian poultry, and human cases have been reported from there since 2006. In recent months, Egypt has reported a marked increase in the number of human infections with A(H5N1). Since the beginning of 2015, 116 cases have been reported from Egypt, exceeding all previous annual totals reported by any one country.[2] Most human cases have been reported from rural areas of central Egypt, along the Nile River and in the Nile Delta. This overlaps with areas where there has been a significant increase in the number of outbreaks of HPAI A(H5N1) detected in poultry.[3]

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.[1]

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.[1] 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.[3]

Although almost all human cases of A(H5N1) in 2015 have been reported from Egypt, outbreaks of HPAI A(H5N1) have occurred amongst poultry in a number of

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other countries during 2015.[4] HPAI A(H5N1) is also considered endemic amongst poultry in Bangladesh, China, Indonesia and Vietnam.

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.

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 ≥ 38°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) WHO Monthly risk assessment of influenza at the human-animal interface (3 March 2015)

(2) WHO EMRO Weekly epidemiological monitor (22 March 2015)

(3) ECDC Risk assessment of avian influenza A(H5N1) in Egypt, First Update (13 March 2015)

(4) World Organisation for animal health (OIE) Update on HPAI

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