

A3 WHO PANDEMIC ALERT PHASE 3: Algorithm for the management of returning travellers and visitors from countries affected by avian influenza (H5N1) presenting with febrile respiratory illness: recognition, investigation and initial management



Revised on 29 July 2008. Please check HPA website for updates.

SCREENING & ASSESSMENT

Patients must fulfil a condition/test in box (1) and boxes (2) & (3)

(1) CLINICAL

Fever \geq 38°C OR history of fever AND respiratory symptoms (cough or shortness of breath) OR other severe life-threatening illness¹

(2) GEOGRAPHICAL

Travel in the last two weeks² to any area of the world known to have cases of avian influenza A/H5N1 in birds³.

Refer to full list of countries/territories on page 2.

(3) EXPOSURES

Within 7 days of onset of symptoms close contact (within 1 metre) with live (well) or sick, dying or dead domestic fowl/poultry or wild birds, including live bird markets, in an area of the world affected by avian influenza A/H5N1³, or with a confirmed H5N1 infected animal other than poultry or wild birds (e.g. cat or pig)⁴. (Contact with poultry meat or eggs in the EU is **not** considered a risk).

OR Health Care Worker (HCW) who has been in contact with a case of severe unexplained respiratory illness or confirmed H5N1 infection from listed areas.

OR Close contact (touching/speaking distance) with other human case(s) of severe respiratory illness or confirmed H5N1 infection or unexplained death from listed areas.

OR Part of HCW cluster of severe unexplained respiratory illness

OR Laboratory worker working in listed areas with potential exposure to influenza A/H5N1

Infection Control & Reporting

As soon as the patient mentions a febrile respiratory illness and travel to an area of the world affected by H5N1 and contact with sick, dying or dead poultry, the following precautions should be taken before continuing with the assessment.



Primary Care/Community:

Location: At patient's home if possible; if not, away from communal areas

Patient: to wear mask (surgical)

Staff: to wear mask (surgical), gown or plastic apron and gloves

Hospital

Location: Side room

Patient: to wear mask (surgical)

Staff: to wear mask (surgical), gown or plastic apron and gloves

Inform local HPU immediately; HPU to contact HPA CfI Duty Doctor immediately tel: 020 8200 4400. Follow SOP for notification of testing to DH. In Northern Ireland inform CCDC, CCDC to inform CDSC-NI tel: 028 9026 3765

Inform hospital infection control and occupational health. Inform local laboratory of sample status



Strict Respiratory Isolation

Patient: Strict respiratory isolation preferably in negative pressure room⁶

Staff: Correctly fitted high filtration mask (FFP3⁵), gown, gloves and eye protection

No Yes

Unlikely to be Influenza A/H5N1. Treat and investigate as clinically indicated.

Treat as indicated. Avian influenza is extremely unlikely based on clinical severity. Follow-up by primary care team/ HPU for further two days, preferably by phone, to confirm recovery/improvement. The patient should be asked to consider voluntary quarantine during this period. Quarantine for contacts is not recommended.

If patient deteriorates consider hospitalisation. If the need for direct patient contact arises staff must wear clothing in accordance with strict respiratory infection precautions ie correctly fitted high filtration mask (FFP3⁵), gown, gloves and eye protection.

To complete clinical evaluation, obtain convalescent blood specimen (10ml clotted), 28 days after symptom onset and send to HPA Influenza Reference Laboratory at Centre for Infections (CfI), Colindale (HPU to arrange).

Does clinical severity warrant hospitalisation?

Advise starting oseltamivir as soon as possible⁸

HOSPITAL INVESTIGATIONS (treat samples as "high risk")

- Via local Health Protection Unit (HPU), arrange for NPA OR Combined nose/ throat swab in virus transport medium for immediate H5N1 PCR at designated regional laboratory⁷. It is advisable to run a normal (seasonal) flu A/B rapid test in parallel.
- CXR
- FBC with differential (lymphopenia is a prominent feature of AI)
- LFTs (liver function frequently deranged with AI)
- Sputum culture \pm gram stain
- Blood Culture
- Legionella and pneumococcal urinary antigens
- Serology mycoplasma, influenza A & B, adenovirus, RSV, Chlamydia, Coxiella & 20 mls reserve

NEGATIVE

POSITIVE

NEGATIVE: Treat as appropriate AND remove from strict respiratory isolation if appropriate. Discharge if appropriate. Continue oseltamivir in prophylactic dosage for minimum of 10 days in total or until 7 days after last exposure (whichever is the longer). Follow-up until symptoms resolve if alternative diagnosis is not established.

POSITIVE: Inform local HPU immediately. Local HPU inform CfI duty doctor immediately of result and discuss prophylaxis. Consider whether patient's normal occupation poses risk to poultry or birds; if YES discuss immediately with Defra. Follow SOP for notification of testing to DH.

1 If geographical and exposure criteria both definitely fulfilled and patient severely unwell but with no respiratory symptoms: discuss with HPA CfI. 2 Includes the possibility of a long incubation and late presentation. 3 For current zones see list below and: http://www.oie.int/download/AVIAN%20INFLUENZA/A_AI-Asia.htm. 4 See full WHO case definitions: http://www.who.int/csr/disease/avian_influenza/guidelines/case_definition2006_08_29/en/index.html. 5 FFP3 standard masks, see HSE guidelines: <http://www.hse.gov.uk/biosafety/diseases/avianflu.htm> 6 If negative pressure facilities are unavailable an isolation room can be set up in accordance with WHO guidance. Transferring patients for this reason alone is not advised www.who.int/csr/disease/avian_influenza/guidelines/infectioncontrol/en 7 Information on local influenza A (H5) testing laboratories is available from: http://www.hpa.org.uk/infections/topics_az/influenza/avian/labs.htm. For full avian influenza guidance see http://www.hpa.org.uk/infections/topics_az/influenza/avian/default.htm. 8 Standard adult treatment dose=75mg bd unless expert advice is to increase dose.

Countries and regions affected by outbreaks of avian influenza A/H5N1 confirmed by a [World Organisation for Animal Health \(OIE\)](#) reference laboratory **and** areas that have reported influenza A (H5) and **have not been** declared free of Highly Pathogenic Avian Influenza in accordance with Article 2.7.12.3 of the Terrestrial Animal Health Code.

Travellers with respiratory symptoms returning from the areas listed below should be assessed using the case definition outlined in the [Algorithm for returning travellers from countries affected by avian influenza presenting with febrile respiratory illness](#).

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- Afghanistan
- Bangladesh
- Cambodia
- China (including Tibet and Hong Kong)
- Egypt
- India
- Indonesia
- Iran
- Iraq
- Japan
- Korea (Rep. of)
- Laos
- Nigeria
- Pakistan
- Russia (Kaluzhskaya Oblast, Krasnodarskiy Kray, Moskovskaya Oblast and Respublika Adygeya, Rostovskaya Oblast and Primorskiy Kray)
- Thailand
- Vietnam