Public Health England

MERS-CoV/Avian Influenza Primary Care Algorithm

Algorithm for the assessment and initial management in primary care of returning travellers and visitors from countries* affected by Middle East Respiratory Syndrome-Coronavirus (MERS-CoV) or avian influenza A (eg H5N1, H7N9, H10N8) presenting with febrile respiratory illness: recognition of a possible case and initial management

*High-risk areas as defined in PHE algorithms:

[1] MERS-CoV: PHE MERS-CoV Case Algorithm
http://www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1317136270914

[2] Avian influenza H5N1: PHE H5N1 Case Algorithm
http://www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1317133362396

[3] Avian influenza H7N9 or H10N8: PHE H7N9 Case Algorithm
http://www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1317138620910

PHE publications gateway number: 2014097

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Infection control procedures: If the patient mentions a febrile respiratory illness on arrival to the primary care facility, standard respiratory precautions are indicated to minimise contact/exposure to staff and other patients

Risk assessment

For a suspect case patients must fulfil the conditions in **both** the boxes below:

	MERS-CoV or avian influenza A (eg H5N1, H7N9, H10N8)
Clinical	A. Fever ≥38°C **AND** B. Lower respiratory tract symptoms (cough or shortness of breath) or clinical signs of lower respiratory tract infection **OR** C. Other severe/life-threatening illness suggestive of an infectious process
Exposure	**AND** History of travel to, or residence in a high-risk area* for MERS-CoV or avian influenza A within two weeks of symptom onset (Note: two weeks has been chosen as the longest period, but for H5N1 the period is seven days, H7N9 10 days and MERS-CoV 14 days)

No

Unlikely to be MERS-CoV or avian influenza A. Treat and investigate as clinically indicated

Yes

Does clinical severity warrant hospitalisation?

No

1. Treat and investigate as indicated
2. Suggest non-urgent molecular testing for influenza. Avian influenza/MERS-CoV is unlikely if clinical severity does not require hospitalisation
3. Follow up by local PHE health protection team, preferably by phone, to confirm recovery /improvement. The patient should be asked to consider voluntary isolation while symptomatic
4. Isolation for contacts is not recommended

If patient deteriorates and needs hospitalisation

Yes

Inform and discuss with local PHE health protection team to risk assess using PHE algorithms according to travel history:

MERS-CoV: [1]PHE MERS-CoV Case Algorithm
H5N1: [2]PHE H5N1 Case Algorithm
H7N9 or H10N8: [3]PHE H7N9 Case Algorithm

Infection control procedures:

- ensure respiratory isolation
- ask patient to wear a surgical mask
- wear personal protective equipment (PPE) – if possible, this should be a correctly fitted FFP3 respirator, gown, gloves and eye protection. If not available, wear a surgical mask, plastic apron and gloves. Eye protection may be considered if the likelihood of splash exists
- when arranging an ambulance for the patient inform ambulance personnel of possible diagnosis and of the need to wear PPE

1. Arrange for immediate hospital admission
2. Inform hospital infection control and occupational health