



Referral of presumptive positive avian influenza A(H7) and A(H5) human samples to the National Reference Laboratory

Advice for PHE Public Health Laboratories

This guidance is intended primarily for PHE Public Health Laboratories (PHLs) in England. The guidance describes the process for referring human samples with presumptive positive results for avian influenza A(H7) and A(H5) infection to the National Reference Laboratory (Respiratory Virus Unit, Public Health England, Colindale). Guidance on primary testing and screening of samples by PHLs is [provided elsewhere](#).

Advice for other laboratories in England

PHE recommends that primary testing/screening for avian influenza A(H7) and/or A(H5) is performed by a PHL. However, it is recognised that some non-PHE clinical diagnostic laboratories in England may have molecular assays that are capable of detecting avian influenza A(H7) and/or A(H5) viruses. Non-PHE clinical diagnostic laboratories should ensure the following measures are actioned if they perform avian influenza primary testing/screening for a suspected case of avian influenza:

- a local risk assessment is performed prior to testing
- the [nearest regional PHL Duty Virologist/Microbiologist](#) is informed that testing is taking place
- the local PHE [Health Protection Team](#) is notified (before results are obtained), so that necessary public health actions can be activated

A non-PHE clinical diagnostic laboratory may follow these sample referral guidelines, following discussion with the local PHL Duty Microbiologist/Virologist, in the following circumstances:

- a presumptive positive avian influenza A(H7) or A(H5) result has been obtained, following local testing
- Influenza A virus has been detected, but testing for A(H1), A(H3), A(H5) and A(H7) has also been performed locally and none of the subtypes have been detected

If a non-PHE clinical diagnostic laboratory has performed a generic influenza A assay only, for a patient with suspected avian influenza, and influenza A virus has been detected, then the [guidance on primary testing and screening of samples by PHLs](#) should be followed.

Advice for public health laboratories in the Devolved Administrations

Public health laboratories in Wales, Scotland and Northern Ireland may also follow this sample referral guidance, if they have arrangements in place to send presumptive positive samples (or influenza A-positive samples unsubtypable from patients with suspected avian influenza) to RVU for confirmatory testing.

Contacting the Respiratory Virus Unit to arrange confirmatory testing

Presumptive positive avian influenza A(H5) or A(H7) samples should be forwarded urgently to RVU for confirmatory testing, including at weekends. Samples should not be sent to RVU without prior notification. Residual volume from the original clinical sample(s) should be sent (minimum 200 ul); if no volume remains, contact RVU for further advice.

Within hours (Monday to Friday, 09:00 to 17:00h) RVU staff should be contacted by telephone: 020 8327 6017. Out-of-hours, the Colindale Duty Doctor should be contacted: 020 8200 4400.

Referring laboratories are asked to provide RVU (or the Colindale Duty Doctor out-of-hours) with the following information:

- case details
- presumptive result(s), including Ct value(s) if known
- number and type(s) of samples being sent
- courier arrangements

RVU (or the Colindale Duty Doctor out-of-hours) will provide details on where samples should be sent. RVU does not charge a fee for testing presumptive positive avian influenza samples.

Packaging and transportation of samples

All samples should be packaged and transported in accordance with Category B transportation regulations. UN 3373 packaging must be used for sample transport. PHE follows the [guidance on regulations for the transport of infectious substances 2013-2014](#), published by the World Health Organization.

Reporting of confirmatory avian influenza results

RVU will report all results of confirmatory testing, positive and negative, to the following:

- the laboratory that produced the presumptive positive result (eg PHL testing laboratory)

- the clinical laboratory that referred the sample initially (eg NHS laboratory)
- the relevant PHL Microbiologist/Virologist
- the local HPT
- Respiratory Diseases Department, Colindale

All parties will be notified by telephone. In addition, written results will be sent to the referring laboratory.

Influenza A positive samples that cannot be subtyped

The following table describes actions for when influenza A has been detected **and** specific subtyping assays have been performed during primary testing/screening for a suspected avian influenza case, but the subtype has not been identified.

Laboratory that performed primary testing/screening	Molecular assays performed	Results	Immediate action
NHS or private sector clinical diagnostic laboratory	Influenza A A(H1) A(H3)	Detected Not detected Not detected	Contact nearest PHL
NHS or private sector clinical diagnostic laboratory	Influenza A A(H1) A(H3) A(H5) A(H7)	Detected Not detected Not detected Not detected Not detected	Contact nearest PHL [†]
PHL	Influenza A A(H1) A(H3) A(H5) A(H7)	Detected Not detected Not detected Not detected Not detected	Contact RVU*

†The PHL Duty Microbiologist/Virologist will discuss the preliminary results and will advise on where to send the samples (either a designated PHL or RVU), if further testing is indicated.

*Out-of-hours, contact the Colindale Duty Doctor for further advice: 020 8200 4400.

Further information

For further information about this guidance, please contact Dr Joanna Ellis, Lead Clinical Scientist, or Dr Jake Dunning, Consultant, at the Respiratory Virus Unit:

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