

ECDC TECHNICAL DOCUMENT

Proposed interim case definition and case finding algorithm for reporting patients infected by the avian influenza A(H7N9) virus in EU/EEA Member States

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Objectives

For surveillance purposes:

- to propose a case definition for reporting cases of avian influenza A(H7N9) virus infection at EU level;
- to propose an algorithm for laboratory investigation of persons requiring testing for infection with the novel avian influenza A(H7N9) virus.

Limitations

This case definition and case finding algorithm have been prepared for surveillance purposes only. They do not provide guidance for clinical diagnosis, nor for management of persons requiring investigation or confirmed cases as this is outside of ECDC's mandate. However, Member States may wish to adapt the document for this purpose as has already been done by some EU countries with diagnosis management algorithms.

The algorithm and the case definition will be adjusted as the current avian influenza A(H7N9) situation develops.

Current situation for application

- Refer to ECDC Risk Assessments and epidemiological updates for the current situationⁱ.
- The rapid availability of specific diagnostic testing for human A(H7N9) in all EU/EEA Member States in National Influenza Centres.

Sources of information

The following information on cases, case definitions and protocols were analysed:

Li Q, Zhou L, Zhou M, Chen Z, Li F, Wu H, et al. Preliminary Report: Epidemiology of the Avian Influenza A(H7N9) Outbreak in China. NEJM April 24, 2013. DOI: 10.1056/NEJMoa1304617 and Supplementary Material.

US Centers for Disease Control and Prevention. Interim Guidance on Case Definitions to be Used for Novel Influenza A (H7N9) Case Investigations in the United States. Available from:

<http://www.cdc.gov/flu/avianflu/h7n9-case-definitions.htm>

Public Health England. Investigation & management of possible human cases of avian influenza A(H7N9), in returning travellers. Available from: http://www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1317138620910

Robert Koch Institute. Respiratorische Erkrankungen in Verbindung mit Influenza A(H7N9). Available from: http://www.rki.de/DE/Content/InfAZ/A/AviareInfluenza/Falldefinition_H7N9.pdf?__blob=publicationFile

ⁱ Latest influenza risk assessments are available at

http://ecdc.europa.eu/en/healthtopics/avian_influenza/risk_threat_assessments/Pages/risk_threat_assessments.aspx

Institut National de Veille Sanitaire. Surveillance des infections liées au nouveau virus aviaire A(H7N9). Point au 5 avril 2013. Available from: <http://www.invs.sante.fr/Actualites/Actualites/Surveillance-des-infections-liees-au-nouveau-virus-aviaire-A-H7N9-.Point-au-5-avril-2013>

1 Case definition of avian influenza A(H7N9) infection

Confirmed case: A patient for which avian influenza A(H7N9) nucleic acid has been detected by RT-PCR according to ECDC/WHO Regional Office Guidanceⁱ.

Probable case: Not applicable.

Possible case: Not applicable.

All confirmed cases should be reported to the national authorities and to ECDC through the EWRS platform.

2 Person requiring laboratory testing for avian influenza A(H7N9) infection

A person with both the following clinical and exposure criteria.

Clinical criteria:

A severe acute respiratory infection (SARI)ⁱⁱ with onset within the last 10 days:

1. History of fever or measured fever of $\geq 38^{\circ}\text{C}$; AND
2. Cough; AND
3. Requiring hospitalisation for clinical care purposes.

Exposure criteria:

1. Recent travel (within 10 days of illness onset) to a risk areaⁱⁱⁱ where human cases of avian influenza A(H7N9) viruses were notified or where avian influenza A(H7N9) viruses are known to be circulating in animals; OR
2. Close contact with confirmed case (within 10 days of illness onset)

ⁱ Diagnostic preparedness in Europe for detection of avian influenza A(H7N9) viruses. Available from <http://ecdc.europa.eu/en/publications/Publications/avian-influenza-H7N9-microbiology-diagnostic-preparedness-for-detection.pdf>

ⁱⁱ WHO Interim Global Surveillance Standards for Influenza. Available from <http://www.who.int/influenza/resources/documents/INFSURVMANUAL.pdf>

ⁱⁱⁱ Risk area: regions or countries in which transmission of laboratory-confirmed human infection with influenza A(H7N9) is known to have occurred or where influenza A(H7N9) was detected in domestic birds or poultry: http://www.who.int/influenza/human_animal_interface/influenza_h7n9/Data_Reports/en/index.html

3 Algorithm for laboratory testing

A person meeting the clinical and exposure criteria for laboratory testing for avian influenza A(H7N9) infection as defined in section 2 should be investigated using the algorithm below. Member States could consider testing close contacts with a confirmed case presenting with clinical criteria 1 and 2, even if they do not require hospitalisation (criteria 3).

