RAPID SCIENTIFIC ADVICE

Risk assessment guidelines for infectious diseases transmitted on aircraft (RAGIDA) – Ebola disease update

30 May 2026

Background

The ongoing outbreak of Ebola disease caused by Bundibugyo virus in the Democratic Republic of the Congo (DRC) and Uganda reported in May 2026 [1] has prompted ECDC to review its operational guidance relevant to air travel. In this context, updated guidance is needed to support preparedness and public health action if a case is identified during or after a flight.

This ECDC rapid scientific advice builds on the Ebola disease content previously included in the haemorrhagic fevers chapter of the 'Risk assessment guidelines for diseases transmitted on aircraft (RAGIDA)' [2]. In the original 2010 guidance, Ebola disease was included under haemorrhagic fevers; in 2011, the guidance was expanded to cover additional diseases.

This updated information is intended to support public health authorities and other competent national authorities in European Union/European Economic Area countries by providing actions to consider after the identification of a suspected or confirmed Ebola disease case during or after a flight.

Early recognition of the disease and risk assessment are needed to support an appropriate public health response when a potentially infectious passenger is identified during or after a flight, while avoiding unnecessary alarm or disruption to air traffic.

Methods

The methods used to develop the original operational guidance are described in the RAGIDA – Part 2 document [2]. For this rapid scientific advice, the content relevant to Ebola disease was reviewed and adapted from the haemorrhagic fevers chapter of that guidance. The text was updated, where needed, in light of evidence and operational experience accrued since the publication of the 2011 guidance.

To produce this update, ECDC experts reviewed the peer-reviewed and grey literature for reports relevant to Ebola disease and air travel (Annex 1) and consulted additional operational and guidance documents relevant to public health management in relation to air travel (Annex 2).

Results of the literature review

The literature search did not identify any published reports describing orthoebolavirus transmission events associated with air travel. After the 2013–2016 Ebola disease outbreak in West Africa, several publications described travellers who took commercial flights from West Africa to such countries as the United Kingdom, the United States (US) and Italy who were subsequently diagnosed with Ebola disease [3-7]. However, these reports did not describe symptoms occurring during the flight. In one of these publications, an imported case was detected after the passenger arrived in the US. Public health authorities carried out contact tracing of passengers and crew members who had been on the same flight, as the date of symptom onset was unclear. None of the traced contacts were later found to be positive for Ebola virus infection [5].

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Ebola disease case definitions

For the purposes of this guidance, an index case is a person under investigation or a confirmed case identified during or after a flight, based on the applicable outbreak-specific case definitions in use at the time. For the current outbreak of Ebola disease caused by Bundibugyo virus in DRC and Uganda, the relevant case definitions are available on the ECDC website [8].

In relation to air travel, the key considerations that might prompt contact tracing or other public health action are whether the person met the applicable case definition and was symptomatic during the flight.

Detection of an index case

In this guidance, an 'index case' is a person under investigation or a confirmed case identified in relation to a flight. The distinction between identification during a flight or after a flight reflects when the case first comes to the attention of the crew or public health authorities. In both situations, the key question is whether or not the person was symptomatic during the flight, because Ebola disease is not considered transmissible before symptom onset.

Symptoms compatible with Ebola disease may include fever, severe headache, muscle pain, weakness, fatigue, sore throat, vomiting, diarrhoea, abdominal pain, or unexplained bleeding or bruising.

If the case is identified during the flight

If a passenger develops symptoms compatible with Ebola disease during the flight, the crew should assess whether the person meets the applicable outbreak-specific case definition and manage the event as a possible Ebola disease case.

The International Air Transport Association (IATA) has published recommendations related to air transport and communicable disease [9,10]. These provide the cabin crew with guidelines for how to manage a suspected case of communicable disease onboard [11].

The following actions should be considered if a passenger becomes unwell during the flight:

i. Assess the exposure history of the passenger (related to the epidemiological and high-risk exposure criteria of the case definitions) to identify a potential index case of Ebola disease;
ii. Advise the captain of the situation (as per point 14 of the IATA guidance), liaise with medical support (ground or onboard), and follow the medical advice;
iii. If no medical support is available during the flight, from the ground or onboard, the cabin crew should follow the IATA guidelines (as per points 4–14) to manage the index case and protect the passengers and crew from transmission. The index case should be isolated; if this is not possible, the passengers located next to the index case should be given adequate protection, including personal protective equipment.

As required by the International Civil Aviation Organization regulations (ICAO Annex 9, Chapter 8, and paragraph 8.15) and the World Health Organization International Health Regulations (WHO IHR 2005, Article 28(4)) [11], the captain should report any suspected communicable disease case to the destination airport and the competent public health authorities before arrival [12].

At arrival, the aircraft should undergo cleaning by the cleaning crew according to the IATA guidelines for cleaning crew [13].

ICAO provides additional guidelines for airlines and airports for the management of communicable disease posing a serious public health risk, including airport and airline preparedness for such events [14,15].

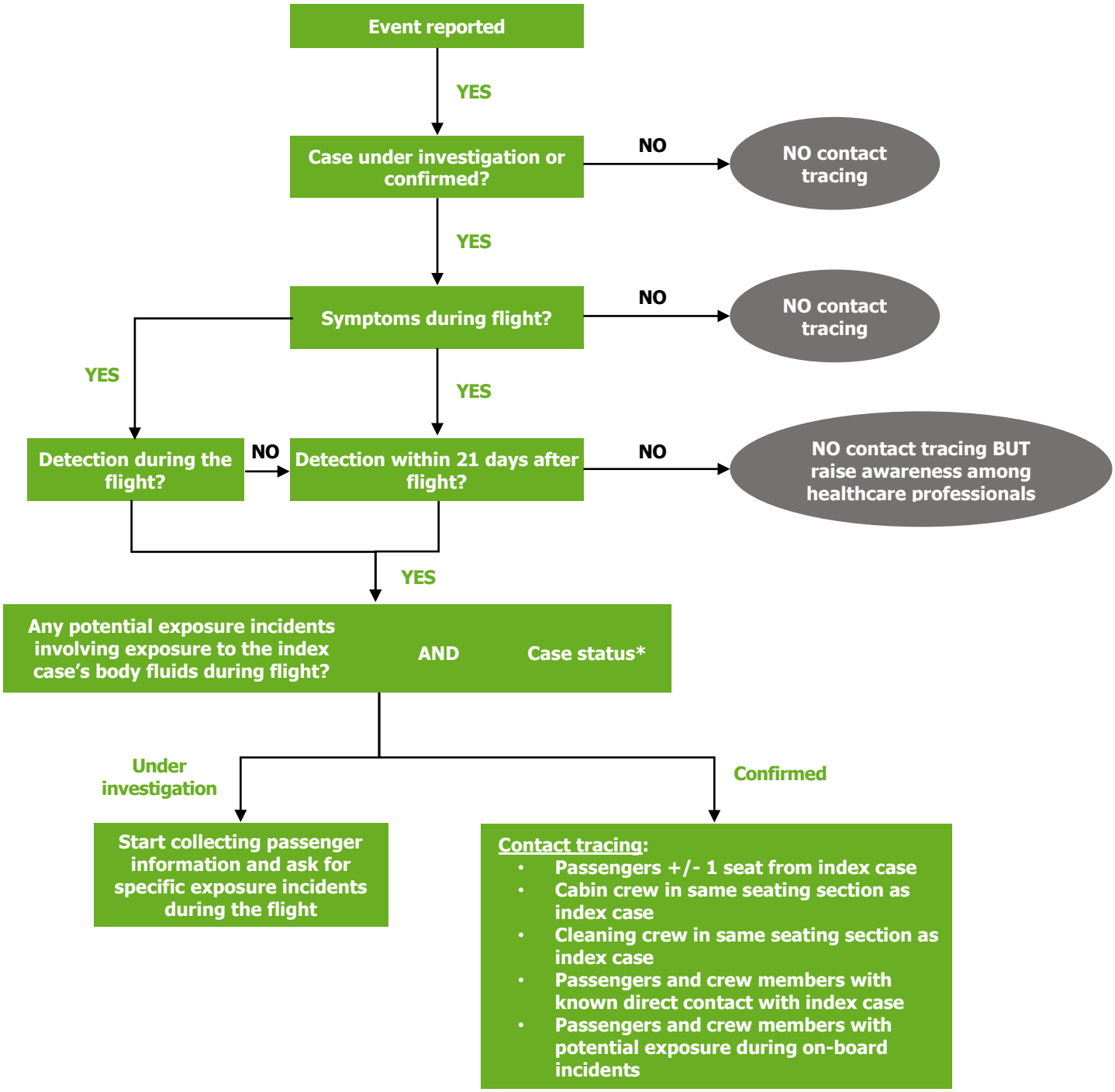
If the case is identified after the flight

The same case definitions apply if the index case is first identified after the flight, rather than during it. Contact tracing should be considered if the index case was identified within 21 days after the flight and was symptomatic during the flight.

Considerations for contact tracing

If an index case identified in relation to a flight met the applicable case definition and was symptomatic during the flight, contact tracing should be considered. The following section outlines the main factors relevant to the decision to initiate contact tracing and to define its scope. A decision algorithm covering the main decision points for assessing whether to initiate contact tracing is provided in Figure 1.

Figure 1. **Contact tracing decision algorithm**



** If the diagnosis cannot be laboratory confirmed (e.g. if clinical samples are unavailable), contact tracing should be considered if the clinical and epidemiological picture strongly suggests Ebola disease as the likely diagnosis.*

Time factor to initiate contact tracing

Detection of the event within 21 days after the flight: The incubation period of Ebola disease usually ranges from two to 21 days [16,17]. Therefore, contact tracing of the indicated passengers should only be initiated if the flight took place within the previous 21 days. If more than 21 days have passed, a message to raise awareness among doctors and public health professionals should be considered.

Detection of the event during the flight: Contact tracing should be initiated at arrival by public health authorities.

Other considerations to initiate contact tracing

The public health authorities of the country of arrival should initiate contact tracing as soon as the case's diagnosis is laboratory confirmed. While waiting for laboratory results, they should contact the airline and ask whether crew members recall or recorded any on-board exposure incidents involving possible contact of crew members or passengers with the index case's body fluids. They should also check whether a passenger manifest can be provided if contact tracing is required. This will facilitate prompt action should Ebola disease be confirmed. If laboratory confirmation cannot be obtained in a timely manner, contact tracing may still be considered if the available evidence strongly suggests a viral haemorrhagic fever as the cause of the index case's illness.

Human-to-human transmission of orthoebolaviruses causing Ebola disease occurs through direct contact with infectious body fluids. Viral RNA has also been detected in sweat [18]; however, the likelihood of transmission through sweat alone is considered to be very low [19]. Passengers who may have had direct physical contact with the case should therefore be contacted and followed up, even if no specific exposure to body fluids was reported. Sharing the same lavatory as the index case is not in itself considered a relevant exposure for contact tracing. However, people who have used the same lavatory should be considered for follow-up if vomiting, diarrhoea, bleeding or other contamination with potentially infectious material may have occurred in that lavatory.

Because direct contact is required for transmission, flight duration does not in itself affect the decision to initiate trace-back.

Scale of contact tracing

Passengers and crew members with reported direct contact: Fellow passengers and crew members who reported direct body contact with the index case or contact with potentially infectious fluids from the index case (body fluids or material contaminated by infectious body fluids) should be traced back. To gather this information, any records of significant events on the flight should be obtained from the airline.

Passengers +/-1 seat from the index case: As direct contact is the main route of transmission for orthoebolaviruses, only the passengers who were seated in direct proximity to the index case should be included in the trace-back (i.e. only passengers who were one seat away from the index case, +/- 1 seat in all directions, should be traced back). If the index case occupied an aisle seat, the three passengers seated directly across the aisle from the index case should also be traced back (Figure 2).

Crew members: Crew members who provided in-flight service in the section of the aircraft where the index case was seated should be included in the contact tracing, as well as any other crew members who had direct contact with the patient.

Cleaning staff: The cleaning staff that cleaned the section and seat where the index case was seated should be traced back.

Figure 2. Seating area to be considered for contact tracing of Ebola disease cases on aircraft

Source: ECDC

Collecting passenger information and sharing with public health authorities

According to the WHO IHR 2005, Article 23(1) [12], a State Party may require information on travellers for public health purposes. It includes information on destination and itinerary, as well as a non-invasive medical examination. The 'Public Health Passenger Locator Form – PLF' (ICAO Annex 9, appendix 13) can be used for this [20]. The PLF gathers information on the flight taken and the seat occupied during the flight, the personal contact information of the passengers, the permanent and/or temporary addresses at the arrival destination, and the names of and seats occupied by travel companions.

According to the WHO IHR 2005, Article 35 and Article 38 [12], the pilot should complete and deliver the Health Part of the Aircraft General Declaration (ICAO Annex 9, appendix 1) that reports information on the crew members, information on passengers with any illness during the flight, and details of sanitary treatment applied [21].

The treatment of personal data should be done in accordance with the WHO IHR 2005, Article 45 [12].

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Annex 1. Search strategy for review

1. Search in PubMed (https://pubmed.ncbi.nlm.nih.gov/?myncbishare=pubmedplus)

("Ebola"[Title/Abstract] OR "Ebola disease"[Title/Abstract] OR "Ebola virus disease"[Title/Abstract] OR ebolavirus[Title/Abstract] OR "Zaire ebolavirus"[Title/Abstract] OR "Zaire virus"[Title/Abstract] OR "Sudan ebolavirus"[Title/Abstract] OR "Sudan virus"[Title/Abstract] OR "Bundibugyo ebolavirus"[Title/Abstract] OR "Bundibugyo virus"[Title/Abstract] OR "Taï Forest ebolavirus"[Title/Abstract] OR "Taï Forest virus"[Title/Abstract] OR "Tai Forest ebolavirus"[Title/Abstract] OR "Tai Forest virus"[Title/Abstract])

AND

("air travel"[Title/Abstract] OR aircraft[Title/Abstract] OR airplane[Title/Abstract] OR aeroplane[Title/Abstract] OR flight[Title/Abstract] OR flights[Title/Abstract] OR airline*[Title/Abstract] OR passenger*[Title/Abstract] OR airport*[Title/Abstract] OR "civil aviation"[Title/Abstract] OR "air transport"[Title/Abstract])

AND

(case*[Title/Abstract] OR transmission[Title/Abstract] OR "contact tracing"[Title/Abstract] OR traveller*[Title/Abstract] OR traveler*[Title/Abstract] OR import*[Title/Abstract] OR exposure[Title/Abstract] OR symptomatic[Title/Abstract])

2. Other search

site:who.int Ebola air travel aircraft contact tracing

site:ecdc.europa.eu Ebola aircraft contact tracing

site:cdc.gov Ebola air travel flight

site:icao.int Ebola air transport

site:iata.org Ebola communicable disease air travel

Annex 2. Additional relevant information sources

WHO handbook for the management of Public Health Events in Air transport, 2015: https://iris.who.int/server/api/core/bitstreams/26d62133-f6a5-4026-af23-631616915522/content

WHO interim guidance on Ebola Event Management at Points of Entry, 2014: https://iris.who.int/server/api/core/bitstreams/00727579-5fcf-4ab3-937c-45adf800c86a/content

ECDC Investigation and public health management of people with possible Ebola virus disease infection, 2019: https://www.ecdc.europa.eu/sites/default/files/documents/Technical_Report_EVD-management-July-2019.pdf

ECDC Health emergency preparedness for imported cases of high-consequence infectious diseases, 2019: https://www.ecdc.europa.eu/sites/default/files/documents/Health-emergency-preparedness-imported-cases-of-high-consequence-infectious-diseases.pdf

ECDC Infection prevention and control measures for Ebola virus disease Public health management of healthcare workers returning from Ebola-affected areas, 2014: https://www.ecdc.europa.eu/sites/default/files/media/en/publications/Publications/management-healthcare-workers-returning-Ebola-affected-areas.pdf

ECDC Public health management of persons having had contact with Ebola virus disease cases in the EU, 2014: https://www.ecdc.europa.eu/sites/default/files/media/en/publications/Publications/ebola-public-health-contact-management.pdf

ICAO information page and links of interest related to the Ebola disease outbreak in Democratic Republic of the Congo and Uganda, 2026: https://www.icao.int/capsca/new-ebola-outbreak-2026

IATA information page on Air transport and Communicable Diseases, accessed May 2026: https://www.iata.org/en/programs/safety/health/diseases/

CAPSCA Ebola information page, accessed May 2026: https://www.icao.int/capsca/ebola

UKHSA risk classification of healthcare workers: https://assets.publishing.service.gov.uk/media/68c7bfe07009f464cdc0cc48/Marburg_virus_disease_and_Ebola_disease_contact_classification_UK_settings.pdf