RAPID SCIENTIFIC ADVICE

Rapid ECDC advice on infection prevention and control measures for Ebola disease in EU/EEA healthcare settings

2 June 2026

Key messages

- The infection prevention and control (IPC) measures for Ebola disease described in this document are aimed at preventing the transmission of ebolaviruses in the EU/EEA from the time of symptom onset through hospitalisation, with the understanding that ebolavirus transmission requires direct contact with infected individuals or their body fluids. Ebola disease IPC measures start with the assessment of whether a symptomatic person meets clinical and epidemiological criteria outlined in the definition of a 'person under investigation' (PUI) for Ebola disease. Such assessment should be conducted as soon as possible, even prior to physical contact with symptomatic individuals and prior to arrival at a hospital.
- Ebola disease is a high-consequence infectious disease (HCID) with high case fatality and limited effective medical countermeasures. Its transmission begins at symptom onset.
- Strict multi-level IPC measures are warranted for Ebola disease, including the use of high-level isolation units if possible/where available.
- IPC measures to prevent the transmission of Ebola disease are well established, with successful implementation during prior outbreaks.

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Background

An ongoing Ebola disease outbreak in the Democratic Republic of the Congo (DRC) and Uganda caused by the Bundibugyo virus (BDBV) has highlighted the need for enhancing infection prevention and control (IPC) preparedness capacity for Ebola disease. This document aims to provide guidance for public health, healthcare providers and IPC professionals in the EU/EEA regarding IPC measures should there be individuals meeting the criteria for '**person under investigation**' (PUI). A PUI is a person meeting the clinical and epidemiological criteria OR with high-risk exposure and any of the listed symptoms, including fever of any grade, as described in the Ebola disease interim case definition for reporting in the EU/EEA, who requires further investigation to confirm or rule out the diagnosis of Ebola disease.

Ebola disease is caused by viruses in the genus Orthoebolavirus, including Bundibugyo virus (BDBV, Orthoebolavirus bundibugyoense), Ebola virus (EBOV, Orthoebolavirus zairense), Sudan virus (Orthoebolavirus sudanense), and Taï Forest virus (Orthoebolavirus taiense). Ebola disease is a high-consequence infectious disease (HCID), causing severe illness and high case fatality among those infected, with limited effective medical countermeasures. Ebola disease in healthcare workers has been described as a consequence of exposure with inadequate personal protective equipment (PPE) or caring for patients with unrecognised infection [1]. It can occur in care settings by direct contact with an

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Erratum 26 June 2026: A correction was made on page 4, section 4e to the sentence about eye protection. The correction states that eye protection should be worn over and not under PPE.

infected patient, exposure to droplets or splashes of blood and other body fluids of the patient, contact with contaminated fomites through breaks in the skin, contact with mucous membranes, or parenterally.

Transmission of Ebola disease does not occur during the incubation period, but the risk of transmission starts with symptom onset and increases as the disease progresses. The likelihood of transmission is highest during the care of severe cases with symptoms such as diarrhoea, vomiting, and bleeding. There is no evidence of natural transmission through inhalation (airborne transmission), but respiratory protection and airborne isolation precautions are warranted based on a point-of-care risk assessment, especially for severely ill patients when there is a high risk of generation and dispersion of infectious particles in the air at close range, i.e. when high-risk 'aerosol-generating' procedures are performed, there is clinical respiratory involvement, or there is high-risk fluid exposure due to vomiting, diarrhoea or bleeding [2-4].

Methods

This rapid scientific advice is based on previous ECDC guidance on Ebola disease IPC [5,6]; a rapid review of published guidance and literature on infection prevention and control of Ebola disease, transmission risks, and risk for healthcare workers; and expert advice. A comprehensive review of available evidence for IPC measures for Ebola disease was conducted for a recent IPC guideline for Ebola and Marburg diseases published by the World Health Organization (WHO), which includes more extensive recommendations [3]. European experts in the field of IPC, particularly for high-consequence pathogens and high-level isolation units, were invited to peer-review this document, and are listed in the acknowledgements.

Limitations

There is limited experience with Ebola disease in the EU/EEA. However, IPC measures to prevent Ebola transmission are well established, with successful implementation during prior outbreaks. There are still limitations in the evidence for the duration of infectiousness and the relative contribution of various transmission routes. In addition, there is limited evidence for IPC measures specifically for Bundibugyo virus. It is assumed that the same measures are effective for all viruses causing Ebola disease.

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Recommended IPC measures are aimed at limiting infectious hazard exposure through multiple levels of control, considering known transmission routes for ebolaviruses and the hierarchy of controls [7].

Public health preparedness for infection prevention and control of Ebola disease

Effective IPC for Ebola disease involves coordination between public health and healthcare delivery actors. The following public health preparedness actions below are essential for the identification of PUIs for Ebola disease, which is inherently linked to IPC implementation. **In jurisdictions where the likelihood of having Ebola disease cases (or contacts of cases) is elevated, healthcare providers should establish systems for evaluating the presence of clinical and epidemiological criteria for PUI prior to direct contact (e.g. during phone triage) or presenting directly to healthcare.** Public health authorities should also consider the assessment of and support to pre-hospital and hospital services regarding protocols, training, and other preparedness needs to implement the Ebola disease IPC measures below.

1. **Risk assessment and raising awareness**: European public health agencies should assess and communicate the risk of identifying PUIs for Ebola disease within their jurisdiction (i.e. individuals under contact monitoring and/or potential for travellers returning from areas affected by outbreaks). The Ebola disease interim case definition for reporting in the EU/EEA should be shared with healthcare providers with clear guidance on using the case definitions for identifying PUIs. Key stakeholders in PUI identification include (but are not limited to) nursing, first responder, and administrative staff in emergency services and primary care who communicate with patients prior to medical care provision.
2. **Establish PUI identification and 24/7 public health response service**: Give clear guidance to pre-hospital providers, as well as hospitals, regarding how to immediately report a PUI (meeting clinical and epidemiological criteria in Ebola disease interim case definition for reporting in the EU/EEA) to a 24/7 public health response service. This service is responsible for confirmation of PUI status, coordination of laboratory diagnosis, advice for isolation until transfer, and a transport plan for transfer to designated healthcare facility for diagnosis and management.
3. **Coordinated PUI determination**: The competent public health authorities should confirm if PUI criteria are met via a conversation with the health professional assessing the patient. Emergency care and IPC measures for HCIDs should not be delayed pending confirmation of PUI status by public health authorities. Once a PUI is identified, public health follow-up and assessment of IPC measures through definitive diagnosis is required.
4. **Coordinated decision-making for disposition of PUIs**: Public health authorities should identify hospitals with the capacity to diagnose and manage PUIs safely, as well as hospitals with the capacity to manage cases of Ebola disease. When a PUI is identified, the care provider and competent public health authority should

coordinate transfer to a suitable hospital for PUI and/or Ebola disease management, using medical transport services with the capacity to safely transfer patients with HCID.

Initial healthcare contact, pre-hospital management, and patient transfer to hospital

The guidance below refers to pre-hospital care of patients who meet criteria for PUI (clinical and epidemiological criteria).

1. **Primary and emergency care providers should establish systems to identify PUIs** (i.e. evaluation of epidemiological and high-risk exposure criteria in addition to clinical criteria) at a distance to inform IPC measures for pre-hospital management [5].
2. **Point-of-care risk assessment:** Applying the hierarchy of controls, evaluation of the likelihood of Ebola disease and assessment of risk for exposure of care providers to body fluids (including vomit, stool, and blood) should ideally occur prior to physical contact.
3. **Limit direct contact with PUI** to necessary health provision by a limited number of healthcare providers trained in PPE donning and doffing procedures for HCID. PPE may not be required when more than a 1 metre distance from the PUI can be maintained and risk of body fluid exposure is low. Patients should be promptly isolated, preferably in a single room with a dedicated toilet.
4. **Instruct PUI to wear a** fluid-resistant **surgical facemask (type IIR)** if tolerated and isolate them away from other patients and healthcare providers, if in a healthcare facility.
5. **Personal protective equipment (PPE) for providers in direct contact with PUI** includes the following components and may vary according to local protocols and point-of-care risk assessment:
    a. **Medical scrubs and footwear.** Personal clothing should be avoided; non-slip waterproof closed-toe footwear is preferred; shoe covers can be worn.
    b. **Two pairs of gloves (Nitrile)**, one under cuff of gown/coverall, second over the cuff.
    c. **Respirator or fluid-resistant medical mask.** A respirator (FFP2 or higher level) is appropriate where close contact, high body-fluid exposure risk, or high-risk procedures are anticipated; a medical mask (Type IIR) with full face shield can be selected for lower-risk direct contact where a point-of-care risk assessment has determined that splash/inhalation is unlikely. Comfort, breathability, and ability to communicate should be considered, alongside limited evidence for benefits or harms of medical mask versus respirator.
    d. **Eye protection** with face shield or goggles, considering ease of use and potential for fogging with goggles.
    e. **Fluid-resistant gown or coverall**, considering comfort, increased risk of contamination when doffing coveralls, and feasibility.
6. **Step-by-step donning and doffing procedures for PPE** should be clearly described and practiced by pre-hospital care providers designated to respond to cases of potential HCIDs**.** A trained 'buddy' should guide and observe the doffing process to prevent contamination during PPE removal. Hand hygiene should be performed immediately after PPE removal.
7. **Transportation of PUIs should follow established protocols for high-consequence pathogens**, using ambulance services designated for such cases, if available. The driver and driver's cabin should be physically separated from the patient area to eliminate the need for driver PPE and improve driving safety. Adherence to protocols for ambulance decontamination, waste management, and PPE removal should be monitored closely (see 'buddy' description above) after transport. PPE should be worn during decontamination.
8. **Pre-hospital provider(s) should coordinate closely with the receiving hospital** to ensure timely information-sharing regarding the patient's clinical status and PUI designation to ensure a smooth transfer with IPC measures in place prior to patient arrival.
9. **Providers of direct care to PUIs should be logged** and assessed for possible body fluid exposure if a case of Ebola disease is confirmed. In case of unprotected body fluid exposure, public health authorities should be consulted for risk assessment and management guidance [8].

Hospital care of PUI and confirmed cases

Criteria for PUI determination should, to the extent feasible, be assessed in coordination with public health authorities prior to hospitalisation and communicated with the designated receiving hospital. In cases where PUI determination is not established prior to hospitalisation, IPC measures should be determined by likelihood of Ebola disease and assessment of risk for exposure to body fluids. Protocols and/or procedures for high-consequence pathogens should include multi-level IPC measures including strategies for early identification of PUIs and strengthened risk assessment (e.g. at triage), ongoing staff training, patient isolation, administrative controls to limit contact, PPE, disinfection/decontamination, and waste management. Implementation of these measures should be monitored by the facility IPC team, with public health and infectious diseases/clinical microbiology consultation as needed.

1. **Hospital arrival and patient isolation**: PUIs should be placed directly into a single-occupancy room designated for the management of Ebola disease. The room should have a dedicated bathroom or commode (mobile toilet with a container) and ideally have negative pressure capability in case of high-risk procedures and an anteroom. Confirmed cases should be treated in specialised high-level isolation units (HLIU), when available considering feasibility, and safety of transfer.
2. **Virological testing to confirm Ebola disease case status should be completed as soon as possible** (see laboratory criteria for Ebola disease definition), following established protocols for safe handling and transport of samples from Ebola disease PUI and confirmed cases, including referral for diagnostic confirmation.
3. **Administrative controls for IPC** include (but are limited to):
    a. **Demarcated 'clean' and 'contaminated' zones for patient care**, with procedures for movement between these areas and appropriate decontamination of individuals and items moving from 'contaminated' to 'clean' areas.
    b. **Working in pairs ('buddy system' or 'trained observer')**: Active monitoring and assistance of activities during direct patient care, PPE donning & doffing, and decontamination & disinfection minimises the risk of accidental contamination.
    c. **Use of dedicated (or disposable) medical equipment when possible.**
    d. **Logging personnel dedicated to the management of Ebola disease cases**. Active symptom monitoring could require support from occupational health professionals.
4. **PPE for hospital care of patients may vary depending on local protocols for high-consequence pathogens and available IPC resources (e.g. in HLIUs).** Hospital PPE protocols are also expected to differ slightly from those used for pre-hospital emergency care. The structured and monitored hospital care environment allows for more comprehensive PPE protocols, providing maximum skin and mucous membrane coverage to protect workers for longer periods of direct patient care. Due to the complexity of PPE used for HCID, staff assigned to treat such patients must be trained and demonstrate competency in **proper donning and doffing procedures with a 'trained observer' or 'buddy'** [6]. The following PPE components are recommended for hospital care:
    a. **Medical scrubs and footwear.** Personal clothing should be avoided. Non-slip waterproof closed-toed footwear is recommended; shoe covers can also be used.
    b. **Two pairs of gloves (Nitrile):** one under cuff of coverall, second over the cuff.
    c. **Respirator (FFP2 or higher level).** Respirators users should ideally be fit tested, and fit checking should be performed with each use. A fluid-resistant medical mask (type IIR) can alternatively be used based on risk assessment (e.g. for patients with mild illness when high-risk procedures are unlikely). Powered air-purifying respirator (PAPRs) may be used as an alternative to filtering facepiece (FFP) respirators but require specialised training.
    d. **Eye protection (face shield or goggles)** considering ease of use, particularly in combination with other PPE components, and potential for fogging.
    e. **Coverall.** In the hospital setting, where structured PPE donning & doffing procedures can be followed, coveralls are preferred to gowns, which incompletely cover the head and neck. Alternatively, particularly if appropriate coverall donning & doffing procedures are not in place, a gown with additional head-and-neck covering (surgical or balaclava hood) can be used, with eye protection worn over this. PAPR systems integrated in head-and-neck coverings can also be used but require specialised training.
    f. **Apron:** disposable, long and medium thickness.
5. **Decontamination and disinfection of healthcare environment and equipment**
    a. Health and care workers cleaning the environment or handling linen or waste should follow PPE protocols used for direct patient care with a heavy duty (utility) outer pair of gloves.
    b. Decontamination and disinfection of patient care areas and equipment can be performed by clinical care personnel already in PPE to limit exposure of additional staff to 'contaminated' areas and items.
    c. High-touch surfaces and floors should be cleaned daily with regular detergents followed by disinfection, through wiping with hospital disinfectants active against viruses. Promptly clean surfaces and objects contaminated with body fluids and follow with disinfection.
    d. Follow local procedures for waste management of Category A waste. All non-liquid clinical waste should be treated as Category A infectious waste for on-site incineration or sterilisation, or transport to specialised facilities for treatment. Body fluid waste (e.g. vomit, urine and diarrheal fluids) can be disposed through regular sewage systems or disinfected in accordance with facility requirements. Disposal of body fluid waste without disinfection should be followed by disinfection of the toilet using standard hospital detergents and disinfectants.
6. **De-escalation of IPC measures**
    a. **For non-cases.** Rule-out of infection with a high-consequence pathogen and determination of non-infectious status should be done in consultation with infectious disease or clinical microbiology specialists, and public health officials. A collection of references on laboratory diagnosis for Ebola disease is available on the ECDC website (Laboratory guidance and resources for Ebola disease outbreak in DRC). When Ebola disease is ruled out (i.e. laboratory testing is negative and an alternative diagnosis explains the illness), the IPC measures should be systematically de-escalated in a controlled manner with the aim to transition to standard precautions (and transmission-based precautions if required for the alternative diagnosis).

   b. **For recovered cases:** Decisions to de-escalate IPC measures and transfer patients to another unit should be made collaboratively with specialists in infectious diseases, intensive care, hospital infection prevention and control, and clinical microbiology. Clinical resolution of symptoms and evidence from nucleic acid amplification testing (NAAT) in blood should be considered when deciding on de-escalating IPC measures. Evidence is very limited on the application of rRT-PCR Ct values for predicting infectiousness of body fluids.

7. **Handling human remains.** Staff handling human remains should be trained in IPC protocols for handling human remains with bloodborne pathogens, including PPE protocols, using PPE with the same adjustments for environmental cleaning. Before removal from the isolation room, the body should be promptly sealed in a double, impermeable, vinyl body bag, able to hold up to 125 kilograms, and equipped with at least four handles to allow safe hand carrying. The exterior of the body bag should be disinfected. Once the body has been appropriately prepared and the sealed body bag has been externally disinfected, handlers transporting or receiving the bag may use a lower level of PPE than that required for direct handling of the body, in accordance with local protocol; hand hygiene remains essential [3].

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