**Frequently Asked Questions**

**Ebola virus disease (EVD)**

**Infection Prevention and Control**

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The following list covers some frequently asked questions about Ebola virus disease pertinent to Infection Prevention and Control. These questions and answers are designed to supplement the guidance of the various documents and guidelines available at [www.paho.org/Ebola](file:///C%3A%5CUsers%5CFilippe%5CAppData%5CRoaming%5CMicrosoft%5CWord%5Cwww.paho.org%5CEbola).

**1. Can alcohol-based hand sanitizer be used to disinfect hands?**

**Personnel should adhere strictly to hand hygiene recommendations. This includes washing and disinfection of ungloved hands. In this case, alcohol-based hand sanitizer is considered an effective disinfectant, provided that general hand hygiene recommendations have been followed correctly and the hands are not visibly dirty.**

**Regarding gloved hands, personnel should carry out hand hygiene before donning (putting on) the gloves, after doffing (taking off) the gloves, and while wearing the gloves, both during patient care and during the personal protective equipment (PPE) doffing procedure. Alcohol-based hand sanitizer does not disinfect gloves. Used gloves should always be discarded in a biohazard container.**

**2. Are the aerosols of nasopharyngeal secretions considered infectious?**

**During procedures where concentrated aerosols can be generated (particularly in the laboratory, during bronchoscopy, orotracheal intubation, or aspiration of secretions, and during autopsy), the use of additional respiratory protection equipment (for example, N95 respirators) is recommended, due to the high concentrations of hazardous infectious particles. A conventional surgical mask does not provide sufficient protection in these situations.**

**3. Are stretcher isolators required for the transport a suspected or confirmed EVD patient?**

There are differences both in clinical manifestations and in outcome.

Stretcher isolators are used for aerosol-borne or airborne diseases. Although they have been used for the medical evacuation of humanitarian health workers during this outbreak, they are not required for the transfer of patients with suspected or confirmed EVD infection.

The infection control measures to be followed during transfer are exactly the same that apply for care of EVD patients within the hospital. It is important that transfer be carried out using devices that can be properly disinfected, according to the type of material, once the process is complete.

Ideally, EVD patients should be transported in a ground or air ambulance that can be subsequently cleaned and disinfected. The use of stretcher isolators is not necessary with this mode of transportation.

**4. Designated establishments. What are the minimum requirements for an isolation room?**

The hospital management should designate an isolation area or room that meets the following requirements. These should preferably be individual rooms. Suspected and confirmed patients should never share the same room. If there are **several confirmed cases**, these patients may be placed in the same room, as long as the following requirements are met.

* The hospital should determine which healthcare providers and visitors will be allowed access to the isolation ward/unit/area/room.
* The isolation area should be clearly marked as such.
* The isolation area should contain the following elements:
* An anteroom for donning and doffing PPE, equipped with:
	+ Sink and materials for hand hygiene
	+ PPE in number sufficient for daily use and sufficient to ensure they are available when needed
	+ Container for collection of hospital waste
	+ Hamper for collection of patient clothing
	+ Container for disposal of used PPE
	+ Container for collection of devices/supplies used on the patient
* Bathroom for exclusive use by the patient
* Adequate ventilation (per international guidelines, this corresponds to 12 air changes per hour)

**5. Utensils that the patient uses: what to make with them?**

Hospital: Whenever possible, use disposable utensils that can be discarded in a designated waste container and incinerated.

If that is not feasible, remove utensils from the room wrapped in a plastic bag and follow standard washing procedure, which implies compliance with routine protection measures.

Products such as hospital-grade soap and disinfectant are sufficient to eliminate the Ebola virus.

It bears stressing that any individuals who develop symptoms should be transferred immediately to a designated hospital.

**6. What are the recommended practices for housekeeping personnel involved in tasks such as laundry and cleaning, for laboratory personnel involved in collection of biological material, and for personnel involved in patient transfer and cadaver handling, among others?**

The first recommendation is that personnel who carry out these tasks should receive proper infection control training, so that they are aware of the risks involved in their work and how to protect themselves.

This training should necessarily include a specific module on Ebola, the content of which should be in accordance with the provisional guideline Infection prevention and control guidance for care of patients with suspected or confirmed Filovirus haemorrhagic fever in health-care settings, with focus on Ebola.

 Training on the proper use of PPE is absolutely essential. PPE should be available in a quantity sent for daily use.

When carrying out such tasks, personnel should wear thick rubber gloves, an impermeable gown or apron, closed shoes (e.g., boots), and facial protection (goggles or a full face shield).

**7. Which PPE should be worn when working with suspected cases of infection by high-risk pathogens, including Ebola?**

These components depend on the role of the healthcare provider.

Professionals involved in the clinical care of patients should wear:

* An impermeable, fluid-resistant surgical gown;
* A plastic apron made from PVC (polyvinyl chloride) or any other waterproof polymer;
* Closed footwear made from puncture-resistant rubber, which should be protected with impermeable shoe covers;
* Long-sleeved, medical-grade nitrile gloves;
* Anti-fog safety goggles or a full face shield;
* A molded surgical mask or particle respirator (e.g., N95), depending on activity;
* An impermeable surgical hood.

For procedures that require sterile technique, both the gloves and the gown should be sterile.

Professionals tasked with heavy-duty work (such as cleaning and laundering), laboratory personnel involved in collection of biological material, and personnel involved in patient transfer or cadaver handling should wear:

* Impermeable, fluid-resistant overalls;
* Long-sleeved, medical-grade nitrile gloves;
* Heavy-duty rubber gloves;
* A moldable surgical mask;
* Safety goggles;
* Rubber boots;
* A heavy PVC apron.

**8. What is the recommended maximum time for which PPE can be worn?**

This will depend on the material from which the PPE is made and on environmental conditions, but the estimated safe period for wearing Tyvek® PPE is around 2 to 3 hours.

Above all, it is important to ensure that personnel can work in adequate conditions to prevent heat-related illness. This can be prevented by means of good team management so as to facilitate adequate rotation, use of a “buddy system”, and by ensuring that each team has at least one member with experience in these matters.

**9. Should the trained observer assigned to supervise PPE use also wear PPE?**

PPE use should be supervised by a trained observer dedicated exclusively to this task.

Trained observers assigned to supervise **the donning of PPE** do not need to wear any PPE themselves.

Trained observers assigned to supervise **the doffing of PPE** should wear a gown, full face shield, gloves, and closed shoes with shoe covers.

**10. Should an N95 respirator be worn?**

Ebola is not transmitted through the air. Therefore, N95 respirator use is not required, except in the event of an aerosol-generating procedure.

**11. Should HAZMAT suits be worn?**

The use of HAZMAT gear is not recommended.

**12. Which PPE should be worn during contact tracing?**

PPE use is not recommended during contact tracing. It is recommended that the contact tracer keep a distance of 1 from the person to be interviewed and avoid contact with the person and the environment.

**13. What is the recommended PPE for laboratory use?**

The recommended PPE for laboratory use is: an impermeable gown, a plastic apron, an N95 respirator, a full face shield or goggles, and gloves.

**14. Which PPE should be worn during disinfection of patients’ homes?**

The PPE for disinfection of patients’ homes is the same recommended for disinfection in hospital settings: overalls, safety goggles, a surgical mask, a thick PVC apron, surgical gloves, rubber gloves, and rubber boots.

**15. Is double-gloving recommended?**

Yes, double-gloving is recommended.

**16. Should the outer gloves be removed before doffing the apron?**

It is not recommended that the outer gloves be removed before doffing the apron. The outer gloves should be disinfected before doffing the apron. The outer gloves should be removed only after doffing the plastic apron.

**17. How should PPE be disinfected?**

PPE should be cleaned with water and soap and subsequently disinfected by soaking in 0.05% hypochlorite solution.

**18. How should PPE be discarded after use?**

PPE should be discarded as hospital waste.

 **References**

* Infection prevention and control guidance for care of patients with suspected or confirmed Filovirus haemorrhagic fever in health-care settings, with focus on Ebola.