# Ebola Expert Working Group: Infection Control Section

# Recommended Process for Donning Personal Protective Equipment (PPE) for Ebola Virus Disease:

**High Transmission Risk Option #1** 

## This procedure requires the following items:

• Hospital scrubs • Fluid-impermeable gown • Bouffant cap (optional) • N95 Respirator • Full face shield • Fluid-impermeable head covering • Knee-high foot/leg coverings • Rubber Boots •Long gloves (2 pairs)

### **Before donning any PPE**

- 1. Remove Personal Clothing and all personal items (including jewellery) and change into hospital scrubs and socks.
- 2. Personal eyeglasses may be worn.

- 3. Perform hand hygiene with alcohol-based hand rub
- 4. Securely tie hair back if required.
- 5. Inspect PPE Prior to Donning. Replace PPE if defects found.
- 6. Engage Trained Observer. The Trained Observer may enter the anteroom to observe the HCW donning process.

## **Donning PPE**

7. Put on fluid-impermeable knee-high leg and foot coverings.



8. Put on rubber boots.



Perform hand hygiene with alcohol-based hand rub and allow to dry.



10. Put on a fluid-impermeable, long-sleeved disposable gown of sufficient length to



11. Put on bouffant cap if using. Put on N95 respirator with straps over bouffant cap (staff must be have been fit tested within the past year to determine the appropriate size N95 respirator).



12. Put on fluid-impermeable head covering ensuring it covers all of the hair and the ears, and ensure that it extends past the neck to the shoulders.



13. Perform a N95 respirator seal check



14. Put on full face-shield



15. Perform hand hygiene with alcohol-based hand rub (ABHR)



16. Put on a pair of long inner gloves. Ensure that the inner gloves are under the cuff of the gown sleeve.



17. Put on a pair of long outer gloves. Pull the glove completely over the cuff of the gown sleeve.



18. You and the trained observer must agree that the PPE is on correctly with no gaps that expose skin or mucous membranes.



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# **Doffing of PPE for Health Care Worker Exiting Ebola**Patient Room: High Transmission Risk Option #1

Ensure the following items are prepped and available in the Patient Room:

•Disinfectant wipes • Absorbent pad • Shuffle pit with disinfectant

Ensure the following items are prepped and available in the Anteroom:

•Infectious waste container • Disinfectant wipes • Steel stool • ABHR • Gloves (long type not required)

## **Inside Patient Room**

- 1. Engage Trained Observer. Trained Observer to notify PPE Doffing Assistant if required. While observing the HCW Doffing Procedure, the Trained Observer may not enter the doffing area and should observe from a designated room separated from the doffing area but with good visual and voice contact. If this is not possible, the Trained Observer may be separated from the HCW by an appropriate partition that provides the necessary physical separation.
- 2. Before entering the PPE Removal Area, inspect PPE.
- 3. Disinfect outer-gloves hands with a disinfectant wipe or ABHR and allow to dry.



4. Stand in shuffle pit filled with disinfectant solution for one minute. The shuffle pit will be located inside the patient room adjacent to the door.



5. Step out of shuffle pit onto absorbent mat.



### In Doffing Area/Enclosure

6. Wipe door handle with a new disinfectant wipe and exit the patient room into PPE doffing area.



7. Step onto disposable absorbent mat. Wipe down external surface of boots. Remove boots and place boots in reprocessing container.



8. Inspect the knee-high leg and foot covers to assess for contamination. If contaminated, disinfect leg cover surface with disinfectant wipe.



9. Inspect outer glove surfaces for cuts or tears. If outer gloves are cut or torn, notify observer.



10. Disinfect outer-gloved hands with a disinfectant wipe or ABHR, and allow to dry.



11. Remove and discard outer set of gloves, taking care not to contaminate inner gloves during removal process.



12. Inspect inner glove:

a) If cut/torn, disinfect the glove with disinfectant wipe or ABHR. Remove the inner glove, perform hand hygiene with alcohol hand rub on bare

hands and put on a clean pair

of gloves. This is a breach.

- b) If no tears/cuts, disinfect inner gloved hands with a disinfectant wipe or ABHR and allow to dry.
- 13. Remove the face shield by tilting your head slightly forward, and pulling it over the head using the rear strap. Allow the face shield to fall forward and discard in infectious waste container.



14. Disinfect inner gloved hands with a disinfectant wipe or ABHR and allow to dry.



15. Remove head covering. Carefully grasp outer surface of hood, tilt head forward, close eyes and remove hood pulling towards front of face Place in biohazardous waste container.



16. Disinfect inner gloved hands with a disinfectant wipe or ABHR and allow to dry.



17. Untie side strap of gown. Do not reach behind neck to release the velcro neck snap. Instead, remove gown by pulling away from the body, rolling inside out being careful to avoid contaminating inner clothing. Place in biohazardous waste bin.



18. Remove leg and foot coverings while sitting on designated stool. Place leg and foot coverings in biohazardous waste container.



19. Disinfect inner gloved hands with a disinfectant wipe or ABHR and allow to dry.



20. Remove inner gloves and dispose in biohazardous waste container.



21. Carefully perform hand hygiene with ABHR.



22. Put on a pair of new gloves (long type not needed).



23. Remove N95 respirator by straps. Do not touch the front of the respirator. Discard in the biohazardous waste container. Remove bouffant cap if wearing.



24. Disinfect gloves with a disinfectant wipe or ABHR and allow to dry.



25. Disinfect designated stool with disinfectant wipes.



26. Roll absorbent mat and discard in biohazardous waste container.



27. Remove gloves and discard in biohazardous waste container.



28. Carefully perform hand hygiene with ABHR or clean sink.



29. If personal eyeglasses were worn into the room, put on a pair of clean gloves and disinfect the glasses with a disinfectant wipe.



30. Perform final inspection for any indication of contamination of the hospital scrubs or otherwise on the body.



- a) If there is evidence of contamination in doffing area, remove scrubs and dispose in biohazardous waste. Put on a clean set of scrubs and walk to shower area. Discard these clean replacement scrubs in regular garbage. This is a breach.
- b) If there is not any evidence of contamination, walk to changing area to remove scrubs, and place these in regular garbage. Don a new set of scrubs.

Shower facilities should be available for healthcare workers caring for EVD patients

#### **IDENTIFYING A BREACH IN PPE**

A breach involves a situation in which PPE has been totally or partially compromised resulting in potential exposure to the health care worker. Examples of a breach include:

- Gloves separate from gown leaving exposed skin
- Inner glove cut/torn, even if outer glove appears intact
- Visible cut/tear in gown
- Needlestick

A breach may be identified during patient care, during inspection of one's PPE before exiting the patient's room, or as otherwise specifically noted in certain steps in this document.

If you experienced a breach, remain calm and follow all the steps in this doffing document. Refer to the section at the end of this document – Process to Follow in the Event of a Breach.

#### In the event of a breach

- 1. If a breach in PPE is suspected and there has been exposure to a patient's body fluids, go to designated doffing area immediately.
- 2. Work with trained observer and doffing assistant to remove PPE as per the step-by-step instructions for doffing PPE, taking care to avoid any further self-contamination.
- 3. If exposed area is intact skin, wash the affected area well with soap and water.
- 4. If exposed area is a mucous membrane or eye flush the area with generous amounts of water.
- 5. If a percutaneous injury occurs, do not promote bleeding by squeezing the wound and do not soak the wound in bleach or disinfectant. Wash the area with soap and water.
- 6. Report the exposure immediately to Workplace Health. If after hours or Workplace Health is unable to assist contact your health authority's Medical Health Officer on call for further instructions.