

# SOP on Use of Personal Protective Equipment

## 1. Purpose:

To improve personnel safety in the healthcare environment through appropriate use of personal protective equipment (PPE.)

## 1. Objective :

The selection of personal protective equipment (PPE) required for an interaction is based upon the risk assessment and what barriers are required to interrupt the chain of transmission. The four elements of PPE include: **gloves, gowns, masks and eye protection**. The selection of the type of PPE product depends on the level of standard and transmission based precautions applicable in a certain clinical scenario.

## 3. Gloves

### 3.1 Gloves must be worn for:

- 3.1.1 Invasive procedure
- 3.1.2 Contact with sterile sites and non-intact skin or mucous membranes
- 3.1.3 All activities that have been assessed as carrying a risk of exposure to blood or body fluids and
- 3.1.4 When handling sharps or contaminated devices.
- 3.1.5 Wear the correct size glove
- 3.1.6 Gloves should be put on immediately before the activity for which they are indicated
- 3.1.7 Clean hands before putting on gloves for a clean or aseptic procedure
- 3.1.8 Change the gloves between patients, between tasks and procedures on the same patient, and when they become soiled.
- 3.1.9 Remove gloves promptly after touching contaminated items and environmental surfaces and before moving to another patient.
- 3.1.10 Remove gloves before leaving the patient's bedside and decontaminate hands immediately.
- 3.1.11 After glove removal and hand washing, ensure that hands do not touch potentially contaminated environmental surfaces or items in the patient's room.
- 3.1.12 Discard gloves after attending to each patient.
- 3.1.13 The reuse of single use gloves is prohibited.

### **3.2 Selecting gloves**

- 3.2.1 Use disposable gloves that are: Clean/non-sterile for routine care of the infectious patients.
- 3.2.2 Use sterile gloves for aseptic and invasive procedures.
- 3.2.3 Use heavy-duty rubber gloves for cleaning instruments, handling soiled linen or dealing with spills of blood and body fluids. They can be washed and reused.
- 3.2.4 Choose gloves that fit properly.
- 3.2.5 Check there is no puncture in gloves. Do not use gloves, if they are torn, as punctured gloves do not provide protection.
- 3.2.6 Clean, non-sterile, disposable, single use gloves are recommended for routine care of patients with highly transmissible infections.

### **3.3 Wearing gloves**

- 3.3.1 Wash hands and dry them.
- 3.3.2 Pick up the first glove by its cuff.
- 3.3.3 Wear the first glove. Bunch the glove up and then pull it onto the hand; ease fingers into the glove.
- 3.3.4 Repeat for the other hand.

### **3.4 Removing gloves**

- 3.4.1 When removing personal protective equipment, remove gloves first.
- 3.4.2 Grasp the outside of one glove, near the cuff, with the thumb and forefinger of the other hand. Pull the glove off, turning it inside out while pulling and holding it in the hand that is still gloved.
- 3.4.3 Hook the bare thumb or finger inside the remaining glove and pull it off by turning it inside out and over the already removed glove to prevent contamination of the ungloved hand.
- 3.4.4 Roll the two gloves together taking care not to contaminate the hands.
- 3.4.5 Discard appropriately.
- 3.4.6 Wash hands and decontaminate with alcohol hand rub/solution.

#### **4. CAPS**

Caps that completely cover the hair are to be used when splashes of blood and body fluids are expected. They should protect the hair from aerosols that may otherwise lodge on the hair and be transferred to other parts of the health care worker such as face or clothing by the hands or onto inanimate objects.

##### **4.1 Selecting cap**

Use a disposable, waterproof cap of an appropriate size which completely covers the hair.

##### **4.2 Wear before masking**

Place or tie cap over the head so as to cover hair completely.

##### **4.3 Remove cap after removing mask**

4.3.1 Remove by holding inside of the cap lifting it straight off head and folding inside out.

4.3.2 Discard in proper container.

4.3.3 Wash hands immediately.

#### **5. Masks**

- a. A surgical mask protects health care providers from inhaling respiratory pathogens transmitted by the droplet route. It prevents the spread of infectious diseases such as varicella (chickenpox) and meningococcal diseases (meningococcal meningitis).
- b. In order to prevent the spread of infection, the appropriate mask should be worn by health care providers and visitors when attending to a patient suffering from a communicable disease that is spread via the airborne or droplet route.
- c. The patient with a communicable disease spread via the droplet or airborne route should wear a surgical mask when being transferred to other departments or hospitals.
- d. Disposable masks are for single use only and should be discarded after 4-6 hours use. They should not be stored in bags and re-used, shared or hung around neck, etc. If a mask is splashed wet, it should be changed using clean gloves and strict hand washing.

##### **5.1 Wearing the mask**

5.1.1 Wash hands and dry.

5.1.2 Remove the clean mask from the container with clean hands.

5.1.3 Ensure the mask is fitted properly. Health care workers must ensure they know how to properly fit a respirator according to the manufacturers' instructions.

5.1.4 If glasses are worn, fit the upper edge of the mask under the glasses. A secure fit will prevent both the escape and the inhalation of micro-organisms around the edges of the mask and fogging of the eyeglasses.

## **5.2 Precautions**

- 5.2.1 Avoid talking, sneezing, or coughing if possible.
- 5.2.2 Masks cannot be worn with beards/unshaven faces.
- 5.2.3 The mask should completely seal the face at all times to ensure effective filtering of micro-organisms

## **5.3 Removing the mask**

- 5.3.1 Wash hands and remove mask, keeping outside of the mask in, handle only the strings.
- 5.3.2 Discard in an appropriate bag/container and seal the bag.
- 5.3.3 Wash hands.

## **6. Gown**

- a. Gowns made of impervious material are to be worn to protect the wearer's clothing/uniform from possible contamination with micro-organisms and exposure to blood, body fluids secretions and excretions.
- b. The gown should be used only once for one patient and discarded or sent for laundering. Health care workers should remove gowns before leaving the unit.

### **6.1 Wearing the gown**

- 6.1.1 Wash hands, and dry.
- 6.1.2 Hold the gown at the neck on the inside permitting to unfold.
- 6.1.3 Slide hands and arms down the sleeves.
- 6.1.4 Fasten the ties at the neck.
- 6.1.5 Overlap the gown at the back as much as possible and secure the waistband.
- 6.1.6 Request assistance to fasten the waist ties

### **6.2 Removing the gown**

- 6.2.1 Remove the gown after removing gloves.
- 6.2.2 Untie the waist-band with a gloved hand if it is tied in front before removing the gloves.
- 6.2.3 Remove gloves and wash hands.
- 6.2.4 Untie the neck-ties (be sure not to touch outside of the gown).
- 6.2.5 Slide the gown down the arms and over the hands by holding in inside of the sleeves.
- 6.2.6 Hold the gown with both the hands (inside the shoulders) at the shoulder seams.
- 6.2.7 Turn the gown inside out (contaminated side in). The hands are then brought together and the gown is rolled and discarded in the container provided.
- 6.2.8 Discard appropriately
- 6.2.9 If reusable - discard if visibly contaminated. If there is shortage of gowns they may be reused during one shift for the same patient. Hang gown with outside facing in when not in use. Discard at the end of each shift.
- 6.2.10 Wash hands thoroughly before touching anything else.

## **7. Apron**

- a. An apron protects the wearer and the uniform from contact with the contaminated body fluids. Plastic aprons are used over the gown when caring for patients where possible splashes with blood and body substances may occur.
- b. Need not be used if the gown is of impermeable material.

### **7.1 Wearing the apron**

- 7.1.1 Wash hands.
- 7.1.2 Ensure that the sleeves are rolled above the elbows before putting on the apron.
- 7.1.3 Wear the apron over the uniform and tie around the waist at the back.

### **7.2 Removing the apron**

- 7.2.1 Wash hands and dry.
- 7.2.2 Remove, touching only the inside part of apron.
- 7.2.3 Decontaminate or dispose according to the health care facility guidelines.
- 7.2.4 Wash hands thoroughly before touching anything else.

## **8. Protective Eyewear / Goggles**

- a. Protective eyewear / goggles should be worn at all times during patient contact when there is a possibility that a patient's body fluids may splash or spray onto the caregiver's face/eyes (e.g. during throat, endotracheal and tracheostomy suctioning, removal of indwelling catheter etc). The amount of exposure can be reduced through the use of protective eyewear. Full face shields may also be used to protect the eyes and mouth of the health care worker in such high-risk situations.
- b. Ordinary spectacles do not provide adequate protection, although caregivers may wear their own glasses with extra protection added at the sides. Protective eyewear should be changed after each shift.
- c. Protective eyewear should be washed and decontaminated after removal and in between use.

### **8.1 Selecting protective eyewear**

- 8.1.1 Goggles should be made of clear polycarbonate plastic with side and forehead shields. These should be optically clear, antifog and distortion-free.
- 8.1.2 Disposable goggles are preferred but reusable ones can be used after cleaning and decontamination.

### **8.2 Wearing protective eye wear**

Wear the eyewear by securing it over the bridge of the nose and also over the mask.

### **8.3 Removing protective eye wear**

Remove and place in appropriate container for cleaning and decontamination prior to reuse by next person.

### **9. Boots / Slippers**

9.1 Slippers / Boots to be used to protect the wearer from splashes of blood, body fluids, secretions and excretions.

9.2 Waterproof boots should be worn for heavily contaminated, wet flooring and floor cleaning.

9.3 Remove boots last, before leaving the room .

### **10. Hand hygiene :**

10.1 Perform hand hygiene immediately after removing PPE.

10.2 If hands become visibly contaminated during PPE removal, wash hands before continuing to remove PPE.

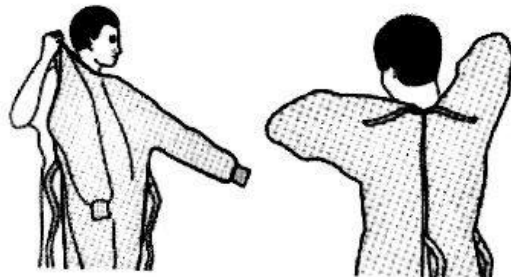
10.3 Wash your hands thoroughly with soap and water or, if hands are not visibly contaminated, use an alcohol-based hand rub.

## SEQUENCE FOR PUTTING ON PERSONAL PROTECTIVE EQUIPMENT (PPE)

The type of PPE used will vary based on the level of precautions required, such as standard and contact, droplet or airborne infection isolation precautions. The procedure for putting on and removing PPE should be tailored to the specific type of PPE.

### 1. GOWN

- Fully cover torso from neck to knees, arms to end of wrists, and wrap around the back
- Fasten in back of neck and waist



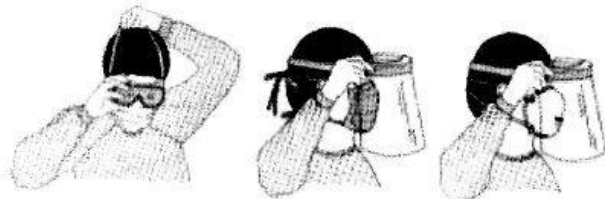
### 2. MASK OR RESPIRATOR

- Secure ties or elastic bands at middle of head and neck
- Fit flexible band to nose bridge
- Fit snug to face and below chin
- Fit-check respirator



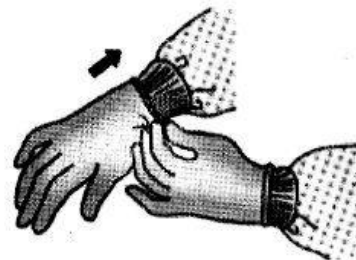
### 3. GOGGLES OR FACE SHIELD

- Place over face and eyes and adjust to fit



### 4. GLOVES

- Extend to cover wrist of isolation gown



## HOW TO SAFELY REMOVE PERSONAL PROTECTIVE EQUIPMENT (PPE) EXAMPLE 1

There are a variety of ways to safely remove PPE without contaminating your clothing, skin, or mucous membranes with potentially infectious materials. Here is one example. **Remove all PPE before exiting the patient room except a respirator, if worn. Remove the respirator after leaving the patient room and closing the door. Remove PPE in the following sequence:**

### 1. GLOVES

- Outside of gloves are contaminated!
- If your hands get contaminated during glove removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Using a gloved hand, grasp the palm area of the other gloved hand and peel off first glove
- Hold removed glove in gloved hand
- Slide fingers of ungloved hand under remaining glove at wrist and peel off second glove over first glove
- Discard gloves in a waste container



### 2. GOGGLES OR FACE SHIELD

- Outside of goggles or face shield are contaminated!
- If your hands get contaminated during goggle or face shield removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Remove goggles or face shield from the back by lifting head band or ear pieces
- If the item is reusable, place in designated receptacle for reprocessing. Otherwise, discard in a waste container



### 3. GOWN

- Gown front and sleeves are contaminated!
- If your hands get contaminated during gown removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Unfasten gown ties, taking care that sleeves don't contact your body when reaching for ties
- Pull gown away from neck and shoulders, touching inside of gown only
- Turn gown inside out
- Fold or roll into a bundle and discard in a waste container

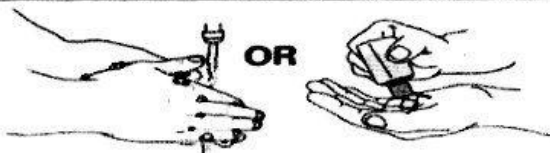


### 4. MASK OR RESPIRATOR

- Front of mask/respirator is contaminated — DO NOT TOUCH!
- If your hands get contaminated during mask/respirator removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Grasp bottom ties or elastics of the mask/respirator, then the ones at the top, and remove without touching the front
- Discard in a waste container



### 5. WASH HANDS OR USE AN ALCOHOL-BASED HAND SANITIZER IMMEDIATELY AFTER REMOVING ALL PPE



**PERFORM HAND HYGIENE BETWEEN STEPS IF HANDS BECOME CONTAMINATED AND IMMEDIATELY AFTER REMOVING ALL PPE**

