



## **STANDARD OPERATING PROCEDURE (SOP) FOR SAFE AND DIGNIFIED MANAGEMENT OF DEAD BODY OF SUSPECTED OR CONFIRMED COVID-19 CASE**

### **Introduction**

COVID-19 is an infectious disease with proven transmission from person to person. Transmission occurs from close contact through infectious materials like respiratory droplets, fecal excretion and oral secretions. Therefore, safe management of dead body as per the approved standard operating procedure is critical for preventing further transmission of the infection and associated consequences.

The cremation process is associated with emotions and is a sensitive issue. It should be handled with sensitivity and respect. Therefore, before any procedure, the family must be informed and fully explained about the nature of the disease, risk of infection, cremation processes, taking into consideration their religious and cultural values and obtain a formal consent from the family.

*Note: The SOP is prepared as per the IPC epidemic and pandemic prone disease guideline for “Mortuary care and post mortem examination”.*

### **Scope**

This SOP is for the management of dead body and human remains from death due to suspected or confirmed COVID-19 case and must be used by trained personnel.

### **Objectives**

1. To prevent infection
2. To provide dignified cremation of the deceased

### **Team composition for handling the dead body**

There should be a minimum of 4 trained people (physically able) in the team comprising of:

1. The health workers attending the patient prior to demise should pack and seal the dead body.
2. Two red cross volunteers or family members to help transfer the body to the cremation site. They should use N95 face mask and gloves to prevent infection.
3. One Health Officer to support family members and oversee the infection control measures

Family members should be discouraged to handle the body sealed in a body bag. However, if they wish, they should follow a proper instruction to handle the body and use N95 mask for extra precaution. Religious representatives shall be allowed to join family members for performing rituals.

### **Step 1: Preparation of disinfectants**

Disinfectant solutions must be prepared on the same day

1. 1% bleaching (chlorine) solution for disinfection of body and body bags

## **Step 2: List of essential equipment/materials**

### **Body bags**

1. Two impermeable and robust plastic bags that can fit maximum body size and height
2. One cloth bag (opaque) should be able to hold 80 -120 kilos

### **Materials to prevent infections**

#### **Hand hygiene**

1. Alcohol-based hand rub solution (recommended)
2. Clean running water, soap and towels (recommended)

#### **Equipment**

1. Stretcher
2. One hand sanitizer (alcohol hand-rub/spray)
3. Leak-proof and puncture resistant sharps container (sharp box)
4. Two leak-proof infectious waste bags: one for disposable material (destruction) and one for reusable materials (disinfection)

#### **Personal Protective Equipment (PPE)**

1. Disposable gloves (non-sterile)
2. Heavy duty gloves
3. Disposable coverall suit
4. Face protection: goggles/face shield
5. N95 mask
6. Footwear:
  - Gumboots
  - Shoe cover

## **Step 3: Coordination with family members and site management**

1. The health officer and the teams will greet the family members and offer condolences
2. The health officer will meet with family members and explain the nature of the disease and risk of infection
3. The health officer should ensure that the family members understood that the disease poses high risk to public health and only the medical team is allowed to handle the dead body
4. The health officer must ensure that the family members and relatives have understood the risk and infection prevention procedures
5. The health officer and the religious representative will work together with the family members to ensure that the cremation is carried out in a safe and dignified way
6. Obtain the formal consent of the family's representative before proceeding with the cremation
7. Identify the family members who will be participating in the cremation rituals and advise them to prepare the pyre in horizontal lying position.

8. The health officer will verify and ensure that the cremation site is in place. If this is not the case, send selected people to do so at the crematory identified by the family members

#### **Step 4: Donning of Personal Protective Equipment (PPE)**

For donning and doffing of PPE, follow the steps outlined in Annexure-1.

#### **Step 5: Placement of body in the body bags**

1. The Health workers on duty shall assess the environment, and ensure doors and windows are closed to prevent enhanced air circulation and aerosolization
2. Do not remove any clothing of the deceased
3. Plug all orifices with cotton soaked in disinfectant using forceps
4. Wipe body cloth of the deceased with appropriate disinfectant sparing the face
5. Gently roll the body wrapped in the bed sheets while sliding first unzipped bag under the dead body
7. Roll the body towards and into the bag, adjust the body, minimize air entry, zip-up, and disinfect the bag by wiping or moping
8. Disinfect gloved hands using hand rub. If any areas of PPE have visible contamination, disinfect with an appropriate disinfectant
9. Unzip and place the second bag (plastic) alongside the first loaded bag, roll gently the first loaded bag over the second bag, reduce air inside the bag, zip up, and disinfect
10. Place the stretcher near the packed body
11. Unzip and place the third bag (cloth) on the stretcher, lift the packed dead body and place it over the third bag
12. Zip-up and disinfect the surface of the third bag by liberally moping or wiping with disinfectant
13. Handover the body to red cross volunteers or family member at the exit door
14. The team who handled the body should disinfect the gloved hands using hand rub
15. The red cross volunteers or family members should carry/wheel the stretcher, and gently place the dead body in the pickup vehicle by placing the head towards the front
16. The Health Officer should ensure that the disinfection and decontamination of the room is carried out as per the SOP of decontamination and disinfection after the body has been removed

**Note:** *Respect and give the grieving/praying time to family members*

#### **Step 6: At the crematorium**

The dead body arriving at crematorium is triple packed with complete disinfection and poses minimum risk of infection. Therefore, handling of dead body requires only basic PPE (gloves and mask).

At the crematorium, the following steps should be followed:

1. Wear gloves and mask, unload the dead body and transport to the funeral pyre or incinerator

*SOP for safe and dignified management of dead body of suspected or confirmed COVID-19 case*

2. Do not open the body bags
3. Place the dead body on the incinerator/pyre as it is
4. Allow the family members to witness and offer prayers
5. Provide adequate time to perform funeral ritual
6. Allow enough time for the body to be completely consumed
7. Collect and dispose ash as per the local custom as ash is no longer infectious

**Step 7: Before returning home or health center**

The Health Officer shall ensure:

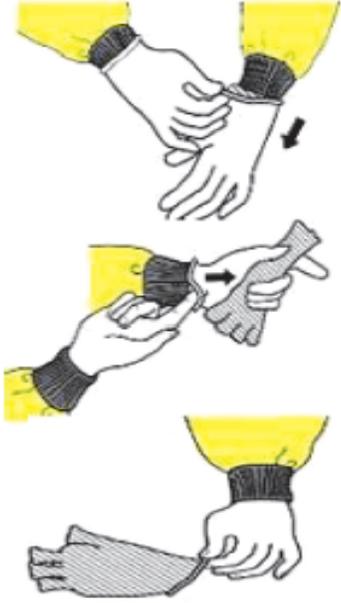
1. Proper disposal of face masks and gloves by burning
2. He thanks family members and religious personnel for their cooperation
3. Disinfect the pick-up vehicle including boot with appropriate disinfectant

**References**

1. Guidance for Safe Handling of Human Remains in U.S. Hospitals and Mortuaries. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute of Occupational Safety and Health. <http://www.cdc.gov/vhf/ebola/healthcare-us/hospitals/handling-human-remains.html>
2. How to conduct safe and dignified burial of a patient who has died from suspected or confirmed Ebola or Marburg virus disease. Interim Guidance, WHO/EVD/GUIDANCE/Burials/14.2Rev1 (2017)
3. Environment cleaning and disinfection principles for COVID-19. Ministry of Health, Australian Government, 2019
4. The Infection Prevention Control of Epidemic and Pandemic prone acute respiratory infections in health care, WHO guideline, 2014.

**Annexure 1.**

**Steps in doffing of PPE**

<p><b>Step 1. Gloves</b></p> <p>Outside of gloves is contaminated! Grasp outside of glove with opposite gloved hand; peel off.</p> <p>Hold removed glove in gloved hand.</p> <p>Slide fingers of ungloved hand under remaining glove at wrist.</p> <p>Peel glove off over first glove.</p> <p>Discard gloves in waste container.</p>	
<p><b>Step 2. Hand Hygiene</b></p> <p>Perform hand hygiene following removal of gloves using soap and water or a non-water cleanser.</p>	
<p><b>Step 3. Goggles or face shield</b></p> <p>Outside of goggles or face shield is contaminated!</p> <p>To remove, handle by head band or ear pieces.</p> <p>Place in designated receptacle for reprocessing or in waste container.</p>	

<p><b>Step 4. Gown</b></p> <p>Growth front and sleeves are contaminated!</p> <p>Unfasten ties.</p> <p>Pull away from neck or shoulders, touching inside of gown only.</p> <p>Turn gown inside out.</p> <p>Fold or roll slowly into a bundle and discard into designated waste container.</p>	
<p><b>Step 5. Gown</b></p> <p>Front of mask is contaminated!- DO NOT TOUCH!</p> <p>Remove by touching tapes or ties only.</p> <p>Discard in designated waste container.</p>	
<p><b>Step 6. Hand Hygiene</b></p> <p>Perform hand hygiene immediately after removing all PPE using soap and water or a non-soap container.</p>	

Source, WHO patient safety guideline 2009

## Steps in doffing of PPE

### Step 1. Gloves

Outside of gloves is contaminated!  
Grasp outside of glove with opposite gloved hand; peel off.

Hold removed glove in gloved hand.

Slide fingers of ungloved hand under remaining glove at wrist.

Peel glove off over first glove.

Discard gloves in waste container.



### Step 2. Hand Hygiene

Perform hand hygiene following removal of gloves using soap and water or a non-water cleanser.



### Step 3. Goggles or face shield

Outside of goggles or face shield is contaminated!

To remove, handle by head band or ear pieces.

Place in designated receptacle for reprocessing or in waste container.

