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## Guidelines

# Infection Prevention and Control (IPC) for the safe management of a Dead body during COVID-19 Outbreak

### Objective

To provide management guidelines to the families, healthcare providers, managers of health facilities and mortuaries, religious and public health authorities, and to all those who attend to the dead bodies of individuals suspected or confirmed for COVID-19.

### Rationale

COVID-19 pandemic has struck the world due to rapid human-to-human transmission. Global evidence shows that it is usually a mild disease with a survival rate of 98% among those affected. Out of these more than 80% of cases recover, around 14% of cases become severe and around 5% result in critical illness demanding intensive hospital care. Whereas, an estimated 3.4% of COVID cases have died globally with variation among countries.

The mortality due to COVID 19 may take place at home or in a health care setting. Till date there is no scientific evidence of transmission of virus through the dead body of COVID 19 deceased case, yet it is vital to ensure precautionary measures while handling the bodies of suspected or confirmed cases. This document aims at providing a standard protocol based on WHO guidelines to prevent any possible transmission.

### Preparing the body for transfer

- Anyone coming in contact with the dead body, including the health care or mortuary workers, must ensure the standard preventive measures including hand washing and disinfection pre and post interaction with the body.
- Anyone attending the body must use appropriate personal protection equipment (PPE) including gown, gloves, and mask etc. Use of face shield and goggles, if there is a potential risk of body fluid splashes, is highly recommended.
- Remove all lines, catheters and tubes thus preparing the body for transfer.
- The attending physician should classify the body as category 1, 2 or 3. The classification tags of categories should be attached to the dead body, body bag or mortuary sheet
  - **Dead bodies under Category 1:**
    - The dead body can be either wrapped with a mortuary sheet or placed in an opaque body bag.



- **Dead bodies under Category 2 or Category 3:**
  - The dead body should be first placed in a robust and leak-proof transparent plastic bag of not less than 150 µm thick, which should be zippered closed. Pins are NOT to be used.
- **A second layer of cover is required.**
  - **Category 2** - The bagged body should be either wrapped with a mortuary sheet or placed in an opaque body bag.
  - **Category 3** – The bagged body should be placed in an opaque body bag.
- The outside of the body bag should be wiped with 1 in 4 diluted household bleach (mixing 1 part of 5.25% bleach with 4 parts of water) and allow to air dry
- Keep minimum movement of the body and safe handling during the transfer.
- Cover the body in a cloth and transfer to the mortuary area as soon as possible.
- Body bags are not necessary unless there is any leakage of body fluids from orifices. Make sure the leakage is contained before transfer. Body bags used must be able to carry up to 125kg of weight.
- No need to disinfect the body before transfer.
- Transfer can be through ambulance or any other vehicle, no special arrangements required.

## Autopsy, including engineering and environmental controls

### Autopsy

- If a person suspected or confirmed for COVID 19 dies during the infectious period, the live virus may still be present in the lungs and other organs of the deceased. Therefore, additional respiratory protection should be taken during aerosol-generating procedures and should be consistent with measures taken for autopsies of those died from an acute respiratory illness
- Health care facilities are responsible for ensuring the safety of those performing the autopsy
- Minimum number of staff with appropriate PPEs i.e. scrub suit, long sleeved fluid-resistant gown, gloves, face shield or goggles, N95 mask (or FFP2/FFP3) for aerosol-generating procedures and boots should be involved in the autopsy
- Autopsy should be performed in an adequately ventilated room, i.e. natural ventilation with at least 160L/s/patient air flow or negative pressure rooms with at least 12 air changes per hour (ACH) along with controlled air flow while using mechanical ventilation

### Environmental cleaning and control

The survival of corona virus on environmental surfaces is up to 9 days therefore cleaning the environment is utmost important

- Always keep the mortuary clean with proper ventilation and adequate lightening.
- The instruments used during the autopsy, should be disinfected before and after the autopsies as part of the routine procedure.
- Environmental surfaces used to prepare the body for burial, should first be washed with water and soap and water or a commercially prepared detergent solution



- After cleaning, the surface should be disinfected with a 70% ethanol or minimum 0.1% concentration (1000 ppm) of sodium hypochlorite (bleach) for at least 1 minute.
- After using the disposable facemasks and gloves dispose them off (as per protocol) in a covered bin.
- Items labeled as clinical waste must be handled as per legal requirements and should be disposed off properly.

## Burial

The burial or cremation of people who die due to COVID should be managed by the authorities on a case-by-case basis, balancing the rights of the family, the risks of exposure to infection and the need of investigation the death cause.

- The funeral rituals must be based on the national and local requirements with the handling and disposition of the remains being dictated by the cultural appropriateness.
- Wound drainage and needle puncture holes should be disinfected and dressed in impermeable material.
- Secretions in oral and nasal orifices can be cleared by gentle suction if needed.
- Oral, nasal and rectal orifices of the dead body have to be plugged to prevent leakage of body fluids.
- The body should be cleaned and dried.
- The body can be covered with white cloth, as per the religious practice, for the burial.
- The health care worker or mortuary staff, preparing the body for burial, should follow the standard precautions of wearing appropriate PPE e.g. gloves, impermeable disposable gown/or disposable gown with impermeable apron, mask, face shield and eye protection goggles.
- Anyone who places the body in the grave must wear gloves. Post burial remove the gloves with care and wash hands with soap and water.
- Avoid the hasty disposal of the body of suspected or confirmed COVID-19.

### Burial by family members or for deaths at home

- Family and friends may view the body but should not be allowed to touch or kiss and should wash hands thoroughly with soap and water after the viewing.
- The family member preparing the body for burial, should follow the standard precautions of wearing appropriate PPE e.g. gloves, impermeable disposable gown/or disposable gown with impermeable apron, mask, face shield and eye protection goggles.
- Burial of the female bodies should be handled by female handlers.
- Clothes worn by the person preparing the body should be immediately removed after procedure, washed with warm water at 60–90°C (140–194°F) and laundry detergent or a disposable apron/gown should be used.
- Keeping in view the cultural sensitivity ensures the exposure of family members is minimum.



- Immunosuppressed persons with underlying health conditions and adults > 60 years of age should not directly interact with the body.
- Individuals with any respiratory symptoms should wear a mask or avoid participating to prevent contamination of the place and the further transmission of disease.
- Disinfection of reusable PPEs must be in accordance with the manufacturer's instructions.
- Anyone handling the belongings of deceased should wear gloves. The belongings should be disinfected with 70% ethanol. The household should be disinfected using 0.5% chlorine or 0.1% bleach solution.
- The clothes of the deceased or fabrics used like linen, towels etc. should be washed in a machine using laundry detergent and warm water at 60–90°C (140–194°F)

*Note: The above recommendations are being regularly reviewed by the Ministry of National Health Services, Regulations & Coordination and will be updated based on the international & national recommendations and best practices.*

*The Ministry acknowledges the contribution of Syeda Shehirbano Akhtar and HSA/ HPSIU/ NIH team to compile these guidelines.*

## References:

1. International Diabetes Federation, COVID-19 outbreak: guidance for people with diabetes ([www.idf.org/our-network/regions-members/europe/europe-news/196-information-on-corona-virus-disease-2019-covid-19-outbreak-and-guidance-for-people-with-diabetes.html](http://www.idf.org/our-network/regions-members/europe/europe-news/196-information-on-corona-virus-disease-2019-covid-19-outbreak-and-guidance-for-people-with-diabetes.html))
2. Worldometer, Coronavirus (COVID-19) Mortality Rate 2020, <https://www.worldometers.info/coronavirus/coronavirus-death-rate/>
3. World Health Organization. WHO interim guidance on Infection Prevention and Control for the safe management of a dead body in the context of COVID-19, March 24, 2020

**For more information, please contact:**

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<http://covid.gov.pk/>

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