

Ministry of Health

Infection control directorate



INFECTION CONTROL GUIDELINES OF CRITICAL CARE AND HANDLING DEAD BODIES FOR PATIENTS WITH SUSPECTED OR CONFIRMED 2019-COVID INFECTION

Critical care

- all respiratory equipment must be protected with a high efficiency filter (such as BS EN 13328-1). This filter must be disposed of after use
- disposable respiratory equipment should be used wherever possible. Re-usable equipment must, as a minimum, be decontaminated in accordance with the manufacturer's instructions
- a closed suctioning system must be used
- ventilator circuits should not be broken unless necessary
- ventilators must be placed on standby when carrying out bagging
- water humidification should be avoided, and a heat and moisture exchanger should be used.
- if aerosol generating procedures such as tracheal intubation, non-invasive ventilation, tracheotomy, cardiopulmonary resuscitation, manual ventilation before intubation, and bronchoscopy, ensure that HCWs performing aerosol-generating procedures:
 - perform procedures in an adequately ventilated room – that is, natural ventilation with air flow of at least 160 L/s per patient or in negative pressure rooms with at least 12 air changes per hour and controlled direction of air flow when using mechanical ventilation.
 - use a particulate respirator as (NIOSH)-certified N95, they must always perform the seal check. Note that if the wearer has facial hair (i.e., a beard) it may prevent a proper fit.
 - use eye protection (i.e., goggles or a face shield); wear a clean, non-sterile, long-sleeved gown and gloves. If gowns are not fluid resistant, HCWs should use a waterproof apron for procedures expected to have high volumes of fluid that might penetrate the gown;

Handling dead bodies

All personnel dealing with the dead bodies shall wear full PPE:

- Wear nonsterile, nitrile gloves when handling potentially infectious materials.
- If there is a risk of cuts, puncture wounds or other injuries that break the skin, wear heavy-duty gloves over the nitrile gloves.
- Wear a clean, long-sleeved fluid-resistant or impermeable gown to protect the clothing.
- Use a plastic face shield or a surgical mask and goggles to protect the face, eyes, nose and mouth from potentially infectious body fluids.
- a body bag should be used for transferring the body and those handling the body at this point should use full PPE.
- the outer surface of the body bag should be decontaminated immediately before the body bag leaves the anteroom area. This may require at least 2 individuals wearing such protective clothing, in order to manage this process.
- label the bag with Category 2 which is signified by a yellow label .
- the trolley carrying the body must be disinfected prior to leaving the anteroom
- prior to leaving the anteroom, the staff members must remove their protective clothing
- once in the hospital mortuary, it would be acceptable to open the body bag for family viewing only (mortuary attendant to wear full PPE)
- washing or preparing the body is acceptable if those carrying out the task wear PPE.
- Mortuary staff and funeral directors must be advised of the biohazard risk. Embalming is not recommended.
- after use, empty body bags should be disposed of as infectious waste .

Autopsy

Engineering Controls

- Perform autopsies on remains of people who have died from COVID-19 infection in autopsy suites that have adequate air-handling systems. This includes systems that maintain negative pressure relative to adjacent areas and that provide a minimum of 6 air exchanges (existing structures) or 12 air exchanges (new construction or renovation) per hour. Ensure that room air exhausts directly to the outside, or passes through a HEPA filter, if recirculated. Direct air (from exhaust systems around the autopsy table) downward and away from workers performing autopsy procedures with specifications similar to airborne infection isolation room (AIIR)
- Use a biosafety cabinet for the handling and examination of smaller specimens and other containment equipment whenever possible.
- Equipment, such as saws, should be equipped with vacuum shrouds to capture aerosols.

Administrative Controls

- Restrict the number of personnel entering the autopsy suite. This may involve training mortuary workers, such as medical examiners or autopsy technicians, to perform environmental services tasks (e.g., cleaning and decontamination) in lieu of additional workers entering such areas.
- Minimize aerosol-generating procedures (AGPs), performing only those that are necessary to perform the autopsy or prepare remains for cremation or burial.
- Minimize the number of staff present when performing AGPs. Exclude those who may be necessary for other procedures but not specifically the AGP.

Safe Work Practices

- Follow standard safety procedures for preventing injuries to/through the skin during autopsy. Use caution when handling needles or other sharps, and dispose of contaminated sharps in puncture-proof, labeled, closable sharps containers.

Personal Protective Equipment

- All mortuary workers and other death care workers who have contact with human remains known or suspected to be contaminated with COVID-19 must wear appropriate PPE. For workers performing autopsies, this includes typical autopsy PPE, such as:
 - Double surgical gloves interposed with a layer of cut-proof synthetic mesh gloves
 - Scrub suit worn under an impermeable gown or apron
 - Goggles or face shield
 - Shoe covers
 - Surgical cap
- Additionally, because of the sustained likelihood of aerosol generation during various steps of autopsy procedures, use NIOSH-certified disposable N95 or better respirators, medical exams, fit testing, and training. Powered, air-purifying respirators (PAPRs) with HEPA filters may provide increased worker comfort during extended autopsy procedures.
- Remove PPE before leaving the autopsy suite and follow appropriate disposal requirements. After removing PPE, always wash hands with soap and water, if available. Ensure that hand hygiene facilities (e.g., sink or alcohol-based hand rub) are readily available at the point of use (e.g., at or adjacent to the PPE doffing area).