



REPUBLIC OF KENYA

MINISTRY OF HEALTH

**Guidelines for Safe Disposal of Human Remains
of a patient who has died from suspected or
confirmed COVID-19**

MARCH 2020

Foreword

Kenya has adopted guidelines for the safe handling and disposal of human remains from COVID-19 outbreak. The guidelines have been developed in line with World Health Organization (WHO) protocols, the Public Health Act Cap 242, Laws of Kenya, Waste Management policies of the Ministry of Health and the Public Health Officers and Technicians Council Scope of Practice.

The guidelines seek to provide information on the safe management of burial of patients who died from suspected or confirmed COVID-19 disease. These measures should be applied not only by healthcare workers but also by anyone involved in the management of burial of suspected or confirmed COVID-19 patients.

During the COVID-19 global outbreak, an increased number of fatalities would be expected. As with any fatality, three main processes must be accomplished: identification of the deceased, certification of death, and disposal of the human remains.

Deaths related to COVID-19 should be certified as such, and whether the diagnosis was laboratory confirmed or presumed based on clinical history and/or circumstances should be indicated. For example, in cases when COVID-19 infection causes acute respiratory distress syndrome due to pneumonia, these can be included in the prescribed reporting tools. If the deceased had other chronic conditions such as COPD or asthma that may have also contributed, these conditions can be reported as contributory conditions.

As a minimum, the human remains arising from COVID-19 cases should be handled in line with section 35 and 36 of the Public Health Act cap 242 Laws of Kenya. The guidelines shall equally be applied in line with the existing regulations under the Public Health Act, Cap 242 and all other guidelines on safe handling and management of human remains from infectious Diseases.

Safe disposal of human remains should therefore be conducted in a manner that prevents infection, control the spread of disease and is culturally appropriate for the bereaved family. The Ministry of Health has therefore developed standards guidelines for the safe management and disposal of human remains from deaths arising from COVID-19 confirmed or suspected cases.

These guidelines shall act as the minimum standards for the health facilities holding the human remains, the family members of the deceased persons and the general public. The guidelines shall also provide measures for the staff in the funeral homes and holding facilities established for such purposes.

The guidelines shall be applicable to the handling of all human remains related to COVID-19 reported within the republic of Kenya and shall be observed by all health workers, health institutions and persons involved the handling and disposal of such remains.

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Ministry of Health

ACKNOWLEDGEMENT

These guidelines on the disposal of human remains from COVID-19 related deaths were developed through a collaborative effort of many stakeholders.

The Ministry of Health wishes to sincerely thank all the stakeholders for their invaluable contribution towards the development and production of this document.

We thank the World Health organization for developing a guide on infectious diseases particularly the development of guidelines for safe management of human remains from Ebola and Marburg diseases from which the Kenya country-level team established the basis of these guidelines.

The Ministry of Health would also wish to express sincere gratitude to the Public Health Officers and Technicians Council for leading the initiative to develop and adopt the guidelines through a stakeholders' coordination approach.

We are thankful to the Department of Environmental Health within the ministry of Health for providing key technical guidance to finalize the compilation of the guidelines. The Ministry further acknowledges the Public Health Officers who were involved in the collection of these guidelines.

We similarly thank the Public Health staff of the Kenya Medical Training College, Umma University, Mount Kenya University, Jomo Kenyatta University of Agriculture and Technology, University of Kabianga and Meru University of Science and Technology.

All those who have not been mentioned but supported the compilation of these guidelines are most appreciated for their contributions.

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Guidelines for Safe Disposal of Human Remains of a patient who has died from suspected or confirmed COVID-19

It is presumed that deaths from COVID-19 will be reported in health facilities. However, should any deaths occur outside health facility setting, procedures have been laid down as follows:

Deaths reported in Health Facility: Since these individuals will presumably be identified and have a known or presumed death due to COVID-19, a competent health professional will be responsible for certifying the death, and the health facility working closely with a designated Public Health Officer and the family will facilitate disposal of human remains.

Deaths Reported Outside Health Facilities: Deaths occurring outside a health facility will be reported through the established guidelines for notification of deaths from infectious disease causes. If preliminary investigation suggests a natural death without concern for COVID-19, and if the deceased is properly identified, the body may be transported to a local funeral home/crematory with subsequent certification by a competent health professional. If preliminary investigation meets the definition for COVID-19 at the time of death and/or risk for COVID-19, the Ministry of Health shall be notified and assume jurisdiction to determine the need for laboratory confirmation and autopsy, A designated Public Health Officer and the family shall thereafter facilitate disposal of the human remains.

Twelve steps have been identified describing the different phases that the teams involved in handling and disposal of human remains have to follow to ensure safe burials, starting from the moment the teams arrive in the burial sites up to their return to the health facilities or team headquarters after burial and disinfection and decontamination procedures.

Due to the infectious nature of COVID-19, the handling of human remains should be kept to a minimum and only trained personnel should handle remains during the outbreak. In addition, the teams involved in handling and disposal of the remains should always consider the cultural appropriateness and other societal concerns.

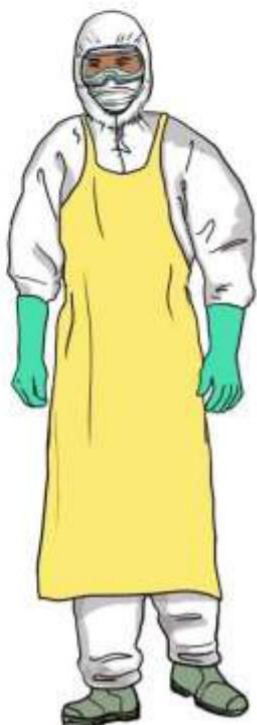
The burial process is considered a sensitive process for the family and the general public and is a potential source of infection. The safely handling and disposal of body remains should therefore be observed in line with the Infection Prevention and control protocols

Before commencement of the handling of the remains, the family must be fully informed about the dignified burial process and their religious and personal rights to show respect for the deceased. Ensure that the formal agreement of the family has been given before starting the burial. **No burial should begin until family agreement has been obtained.**

- Step 1: Prior to departure: Team composition and preparation of disinfectants**
- Step 2: Assemble all necessary equipment**
- Step 3: Arrival at burial site/crematorium: prepare final rites with family and evaluate risks**
- Step 4: Put on adequate Personal Protective Equipment (PPE)**
- Step 5: Placement of the body in the body bag (Deaths outside health facilities)**
- Step 6: Placement of the body bag in a coffin where culturally appropriate**
- Step 7: Decontaminate the environment**
- Step 8: Remove PPE, disinfect, manage waste and perform hand hygiene**
- Step 9: Return to the hospital or team headquarters**

Step 1: Prior to departure, team composition and preparation of disinfectants

DO NOT ENTER THE PATIENT AREA IF YOU DO NOT HAVE ALL PROTECTIVE GEAR ON



Full PPE in field situation



Sprayer & Supervisor



Communicator

Prior to departure

One team should comprise:

- **4 members, wearing full PPE for field situation**
- **1 sprayer, wearing full PPE for field situation**
- **1 technical supervisor, not wearing PPE**
- **1 communicator, a person who interact with family and community, not wearing PPE**
- **1 religious group representative, not wearing PPE**

All burial/cremation management team members should be clear on their roles and responsibilities, including who is the technical supervisor.

Disinfectant solutions must be prepared for the same day:

- 0.05% chlorine solution for hand hygiene
- 0.5% chlorine solution for disinfection of object and surfaces

Step 2: Assemble all necessary equipment



Assemble body bag to hold the body of the deceased

- Impermeable, vinyl, minimum thickness 400 microns
- Should be able to hold 100-125 kilos (200-250 lbs)
- At least 4 handles included in the body bag to allow safe hand carry
- Provide full containment of blood borne pathogens



Assemble all necessary equipment to prevent infections

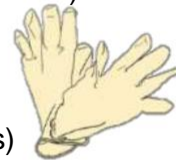


Hand hygiene

- Clean running water with soap and disposable towels (recommended) **OR**
- Alcohol-based hand rub solution (recommended) **OR**
- Chlorine solution 0.05% (when option above are not available)

Personal Protective Equipment (PPE)

- One pair of disposable gloves (non-sterile, ambidextrous)
- One pair of heavy-duty gloves
- Disposable coverall suit (e.g. Tyvec suit) + impermeable plastic apron
- Face protection: goggles and mask
- Footwear:
 - rubber boots (recommended) **OR** if not available
 - shoes with puncture-resistant soles and disposable overshoes



Waste management materials

- Disinfectant:
 - ✓ One hand sprayer (0.05% chlorine solution)
 - ✓ One back sprayer (0.5% chlorine solution)
- Leak-proof and puncture resistant sharps container



- Two leak-proof infectious waste bags: one for disposable material (destruction) and one for reusable materials (disinfection)



Step 3: Arrival : prepare body disposal with family and evaluate risks



1. Prior to departure the team leader must brief the Body disposal team about how to conduct the final rites.
2. Arrival of the Body disposal team
3. The staff should not be wearing PPE upon arrival.
4. Greet the family and offer your condolences before unloading the necessary material from the vehicles. Request respectfully for a family representative.
5. The communicator should liaise with the family representative for the final rites
6. The Body disposal team leader should ensure that the family witness and other family members have understood these procedures. **Obtain the formal agreement of the family's representative before proceeding.**

Step 3: Arrival : prepare burial with family and evaluate risks (continued)

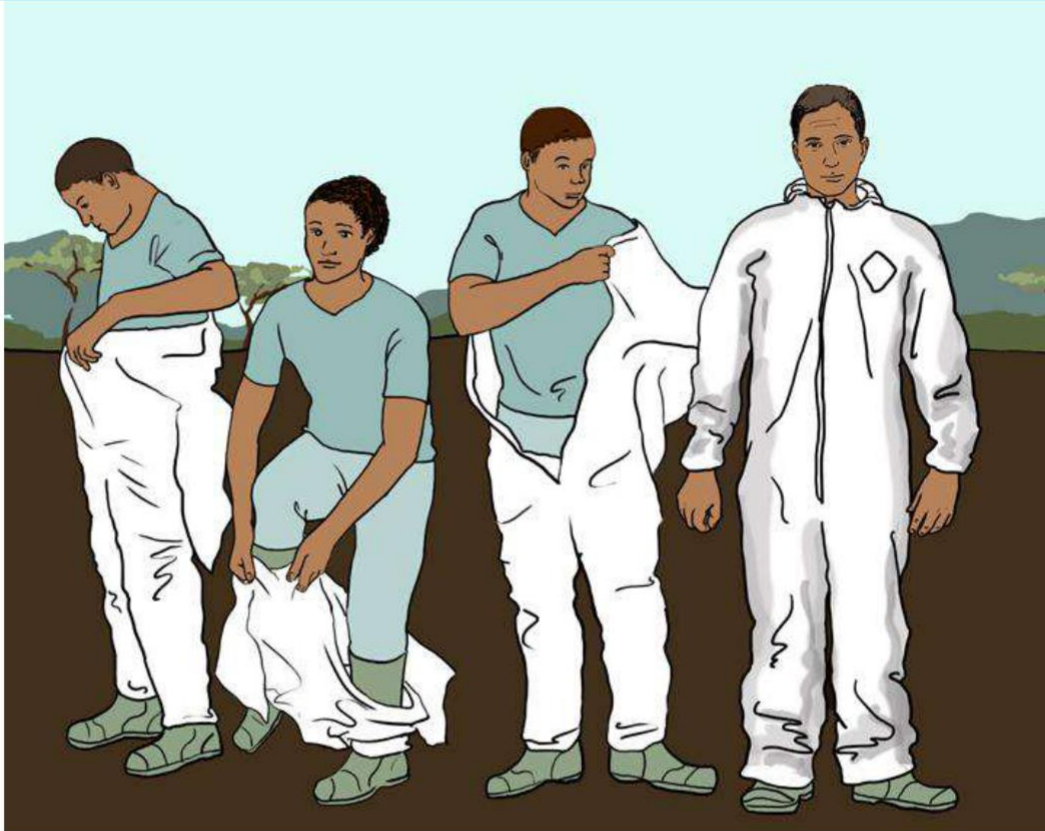


1. Body disposal team to refer to these guidelines at all times
2. Ask the family representative if there are any specific requests from the family or community, for example, about the personal effects of the deceased. The family should decide what to do with the personal effects of the deceased (burn, bury in the grave or disinfect).

The Body disposal Team should include

1. A family representative
2. A Public Health Officer
3. A local administrator (Chief / Assistant Chief)
4. Security
5. Any other co 'opted health professional

Step 4: Put on adequate Personal Protective Equipment (PPE)



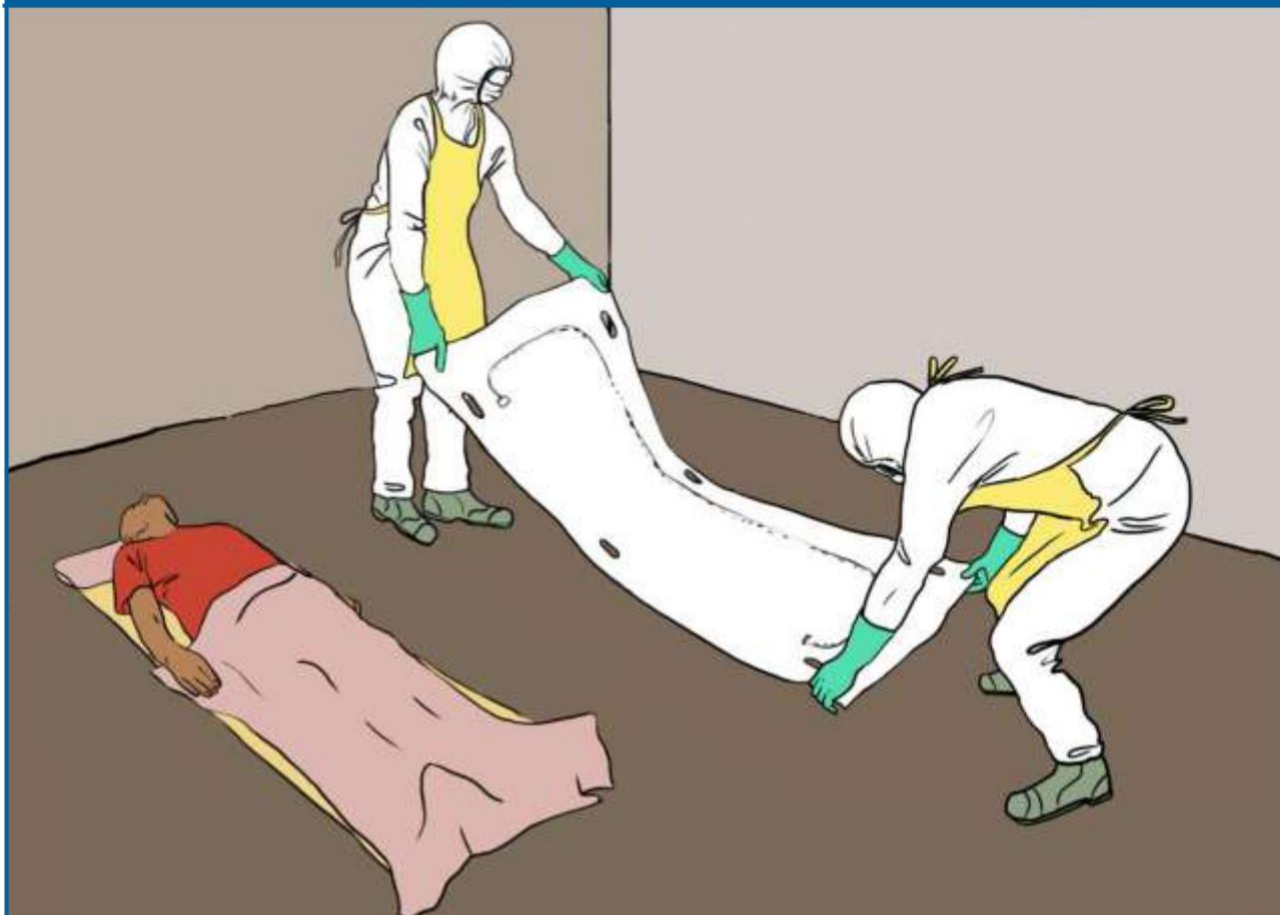
□ Evaluate the set-up of the environment

- a) Locate the room where the remains are, open the windows and doors for optimal light and ventilation
- b) Evaluate the size and weight of the deceased in order to choose the right size of body bag. This bag needs to be opaque.
- c) If a coffin is to be used, place the coffin outside the house
- d) Identify with the family, the rooms and annexes (bathroom, toilet) that were used by the deceased patient as they need to be cleaned and disinfected

□ Put on all personal protective equipment (PPE) by body disposal team in the Presence of the family according to the recommended steps

- | | |
|---|-------------------------------------|
| 1. Put on rubber boots | 5. Hood up |
| 2. Perform Hand Hygiene | 6. Make thumb hole in suit |
| 3. Put on coverall suit and plastic apron | 7. Put on inner gloves (under cuff) |
| 4. Put on face mask and safety goggles | 8. Put on outer gloves (over cuff) |

Step 5: Placement of the body in the body bag (Deaths occurring at home)



☐ **Entry into the house with at least 2 persons of the Body disposal team:**

1. Laboratory- team collect a post-mortem sample for confirmation (see oral swab protocol)
2. Place the body in a body bag or impervious material (in case of secretions/mutilations)
3. Disinfecting the outer side of the body by spraying over the surface of the body with a suitable disinfectant (e.g., 0.5% chlorine solution)
4. Dress the body

☐ **IMPORTANT NOTES:**

- **Manipulation of the body should be minimal**
- **Remains should not be washed or embalmed**

Step 6: Placement of the body bag in the coffin where culturally appropriate



1. Placement of the body bag in the coffin by persons wearing PPE
2. In case no coffin is available the body bag should be used by persons wearing PPE
3. Place clothes and/or objects of the deceased patient inside the coffin if the family so wishes
4. Allow one of the family members to close the coffin, ensure they are wearing gloves at all times
5. Disinfect the coffin
6. Respect the grieving time requested by the family
7. The coffin should remain permanently closed
8. The body should then be interred

Step 7: Decontaminate the environment



Collection of soiled objects, disinfection if needed, or burning and cleaning and disinfection of the environment (rooms, house) wearing PPE:

1. Collect any sharps that might have been used on the patient and dispose them in a leak-proof and puncture resistant container.
2. Clean with clean water and detergent and then disinfect with a suitable disinfectant (e.g., 0.5% chlorine solution) all rooms and annexes of the house that were possibly infected by the deceased patient. Special focus should be given to areas soiled by blood, nasal secretions, sputum, urine, stool and vomit.
3. Clean with water and detergent all objects (e.g. dishes...) possibly infected by the deceased patient; then disinfect with a chlorine solution 0.5%.
4. Any, bed linen, clothes and objects of the deceased, should be disinfected
5. Mattresses, straw mats soiled with body fluid of the deceased patient should be burnt at a distance from the house. Ensure the family has given permission to destroy the mattresses, straw mat, etc.

After this operation and before proceeding to removing the PPE confirm if:

Did the Body disposal team disinfect all belongings of the deceased patient?

At the end of this step all places in the home are disinfected

Step 8: Remove PPE, manage waste and perform hand hygiene

A. Disinfect boots without removing them

B. Remove apron

1. Untie the apron, remove it and discard into infectious waste bag for disinfection
2. Wash outer gloves



C. Remove outer gloves

1. Remove outer gloves
2. Wash inner gloves

D. Remove coverall

1. Take Hood off
2. Pull zip down
3. Wash inner gloves
4. Remove coverall suit, from inside, peeling it off
5. Dispose the coverall suit in the infectious waste bag for destruction
6. Wash inner gloves

E1. Remove goggles from behind

Place it in a waste bag for disinfection.

Wash inner gloves



E2. Remove mask from behind

Place it in waste bag for destruction

Wash inner gloves



F. Remove inner gloves

1. Grasp the outer edge of the 1st glove and peel it off.



2. Hold the 1st glove in the gloved hand and drag a bare finger under the 2nd glove.



3. Remove 2nd glove from the inside, creating a "bag" for both gloves and throw it in waste bag for disposal.



G. Wash hands/ sanitize your hands

1. Disinfect rubber boots without removing them. When you are back to Hospital or Team headquarters at the end of the working day, each team member should take off rubber boots and disinfect them
2. Remove PPE of the Body disposal team carefully following the recommended steps and perform hand hygiene
3. Recover the single-use PPE in an appropriate waste bag, prepared by the supervisor. The bag will be closed and disinfected and there after brought for incineration at the health facility (or other designated place where single-use equipment will be burned)
4. Recover any reusable disinfected equipment in a waste bag, closed and disinfected on-site, before bringing this to the health facility or team headquarters for appropriate handling.
5. Perform hand hygiene.

At the end of this step the Body disposal team has removed their PPE (except the rubber boots) and has performed hand hygiene

Step 9 : Return to the Health Facility or Team headquarters



1. Organize the incineration of the single-use (disposable) equipment at the hospital or in another designated place for burning this type of equipment
2. The reusable equipment is again disinfected and dried
3. The post-mortem samples are sent to the laboratory team
4. The car used for the funerals needs to be cleaned and disinfected (especially the rear)
5. At the end of the working day, before going back home, each team member should take off rubber boots and disinfect them with 0.5% chlorine solution.
6. Rubber boots should be kept at the hospital of team headquarters.

It may be worthwhile to use a checklist, to ensure that all steps are followed during the entire process from arrival at the house until the end of the funeral. Any problems detected should be reported