

Healthcare Mass Fatality Management Guidelines

Definitions

Pronouncing Death: The determination, based on physical assessment that life has ceased.

Reporting Death: The process of notifying the King County Medical Examiner's Office (KCMEO) regarding the death and providing specific information as to the circumstances surrounding the death. KCMEO must be informed of all deaths required by law to be reported

Assuming Jurisdiction of a Death: The KCMEO will triage all reported deaths and determine if they will assume jurisdiction. Assuming jurisdiction means KCMEO will conduct an investigation into the cause and manner of death.

Investigating Death: Investigation is done by the KCMEO to determine the circumstances surrounding the death.

Certification of Death: The official determination of cause and manner of death. This is determined by the pathologist after autopsy or by a medical provider responsible for the care of an individual prior to death.

Pronouncing, Reporting, and Certifying Death

Pronouncing Death during a Disaster

Follow normal institutional protocol for pronouncing death. Protocols may change in a disaster but decisions to alter them are internal to the organization.

Reporting Deaths to the King County Medical Examiner's Office

The role of the KCMEO is to investigate sudden unexpected, violent, suspicious or unnatural deaths. In any emergency or disaster, deaths that result from the incident, or occurred during an incident are potentially unnatural deaths and therefore are within the legal jurisdiction of the King County Medical Examiner's Office, and should be reported to the KCMEO as soon as is practically possible. At the time the death is reported the KCMEO will determine whether they will assume jurisdiction of the death.

- For Example: during an earthquake, if someone dies as a result of a structural collapse, the KCMEO will take jurisdiction over the death.

Pandemic Influenza Deaths:

All influenza deaths should be reported to the KCMEO unless otherwise notified by Public Health via the Health and Medical Area Command.

Per RCW 68.50.010 the KCMEO the following types of cases must be reported to the KCMEO:

- Persons who die suddenly when in apparent good health and without medical attendance within thirty-six hours preceding death.
- Circumstances that indicate death was caused *in part or entirely* by unnatural or unlawful means.
- Deaths that may have resulted from complications of therapy or where equipment, medication, or other supplies were faulty
- Suspicious circumstances
- Unknown or obscure causes.
- Deaths caused by any violence whatsoever, whether the primary cause or any contributory factor in the death.
- Contagious disease.
- Unidentified human remains
- Unclaimed human remains.

To report a death call the King County Medical Examiner's Office at **XXX-XXX-XXXX** - 24 hours daily, unless otherwise directed by Health and Medical Area Command.

Certification of Death

Each death has to be legally documented and a cause and manner of death identified.

Deaths that the KCMEO Investigates:

The KCMEO is responsible for certifying deaths resulting from any type of disaster or mass fatality incident.

Deaths that the KCMEO does not Investigate:

When KCMEO declines jurisdiction on a reported death, the death should be certified by the attending medical professional [this can be done by a Physician (MD or DO), Physician's Assistant, ARNP or Chiropractor within the state of Washington, before human remains are released to the funeral home]. These deaths must still be reported to the KCMEO.

The funeral home is responsible for filing the death certificate with Public Health – Seattle & King County Office of Vital Statistics per county protocol.

Cultural Considerations

When reporting deaths during a disaster, it is important to alert the KCMEO of any cultural factors. There is no guarantee that the KCMEO will be able to accommodate specific cultural practices, especially in a mass fatality situation. However, every effort will be made to respect cultural practices. The KCMEO may work with the facility, community, or religious leaders to best manage the death within the appropriate traditions or customs.

Death Investigation

Permission must be obtained from the KCMEO before remains are removed from any incident site. There are three scenarios in which a community may be required to conduct death investigation in lieu of the KCMEO.

1. A mass fatality incident has occurred in another jurisdiction and KCMEO does not have the resources to send someone to respond to non-disaster-related deaths in other jurisdictions.
2. There is a mass fatality incident within a city but the city is isolated due to the nature of the incident (e.g. infrastructure breakdown after an earthquake).
3. There is a catastrophe throughout the region.

If any of these events occur and death investigation in lieu of the KCMEO, the morgue team should apply the same standards that law enforcement would employ in any potentially criminal investigation. Steps they must take include:

- Photography: photograph the scene and the body in place, including the positioning of the body, any clothing or jewelry, any covering, relevant scene indicators (drugs, medications, etc.).
- Narrative (in lieu of a police report): include a description of how the body was found, the position of the body, the immediate surroundings, the circumstances of death (if known), medical history, physician contact information, name/contact of Next of Kin (if known), and any suspicious circumstances.

In anticipation of law enforcement being overwhelmed, healthcare should train people in advance to follow these steps and work in their stead.

Tracking of Human Remains

Tagging:

Healthcare organizations should use the tags provided by KCMEO. If these tags are not available print out tags or write information on a piece of paper, complete the information, laminate them (or cover them completely with clear packing tape), and, using a zip tie, affix one tag to the ankle of the decedent and one tag to the bag or wrapping around the body.

Tag Information

- Tentative Identification

- Location Found (specific and address)
- Date and Time of Death **OR** Date and Time Found
- Person Completing Tag
- Other

Forms:

In addition to any police report and narrative completed, the Decedent Information Form should be completed for each decedent. Describe the circumstance of death, including how the body was discovered, if it was in a locked or secure location, etc. Describe in detail how the body was identified. In lieu of a KCMEO investigator on the scene, KCMEO will rely upon the police report; ensure that the following information is captured in the police report: how the body was identified and was the death attended.

Decedent Identity Known:

Seal and label each body, body bag, clothing and personal effects bag and medical record with the deceased's name and date of birth.

Decedent Identity Unknown:

Seal and label each body, body bag, clothing and personal effects bag and medical record (if at a medical facility) with a unique identifier, location of death and sequential number if multiple deaths occur at one location, (e.g. King County Hospital #1, King County Hospital #2, etc.). Sequential numbering should be facility wide and numbers should never be repeated during any event. If death occurs at a medical facility, include the chart number, and the address of origination. DO NOT use John or Jane Doe.

Movement, Storage and Release of Human Remains:

Keep detailed records like that of a chain -of-evidence for each individual body and personal effects bag.

Ensure dates, times, persons involved and locations are recorded. A simple spreadsheet may be used to list the decedent names and/or the unique identifier, delivery date and by whom, date in and date out, removal date and by whom, personal effects receipted or none, death certificate completed, or the name of the attending who will sign the death certificate. Keep these records as part of the official record for the response as there may be questions by the families of decedents about the identity, correct release of bodies and loss of personal effects in such large scale events.

Personal Effects

Deaths that the KCMEO investigates:

Whether personal effects are left on the body or removed they should be carefully documented. If personal effects are the only thing that can assist the Medical Examiner in determining the decedent's identity they should be left on the body. Personal effects may also be used as evidence in a criminal event and may be needed for law enforcement's investigation. If the decedent was a patient at a hospital and their personal effects are already in the system, leave the personal effects in the secure location and ensure that they are retrievable upon request by the KCMEO. Personal effects should be carefully tracked with the decedent and may require expanded storage.

Deaths the KCMEO does not investigate (e.g. most pandemic flu deaths):

If at a central storage location, use standard procedures for inventorying the personal effects of decedent to document and receipt them in such a way as to ensure decedent ownership and tracking. If personal effects accompany the remains in the human remains pouches, ensure that the funeral director and family are made aware of this so that effects may be safely retrieved before cremation or final disposition.

Care of Human Remains after Death

Human remains should be placed in fully sealed impermeable human remains pouch (disaster body bag) prior to storage or removal. The decedent's body and the pouch should be clearly tagged with the individual decedent's identifiers such as name, date of birth, social security number, where body was found, medical record number (if at a medical facility) etc. Complete labeling reduces the number of times mortuary staff needs to open pouches to confirm the contents. Attention should be given to labeling with indelible markers and protecting labels from water damage.

Temporary Morgue Strategy

The following considerations are important when assessing your options for human remains storage:

Security: location should be fully secured with access limited to a minimal number of staff. A log should be kept of all who access the storage site, including the date, time, and reason for access.

Access: Ensure that human remains can be transported into and out of the location with ease. To the extent possible, any path traveled with a body should be devoid of stairs. Elevators on the access route should be large enough to accommodate a gurney, or similar transport equipment needs to be able to move in and out of the space. If used, refrigerated trucks/trailers will require appropriate ramps for loading and unloading.

Temperature: 34-37 F degrees is ideal for storing human remains. If this is not achievable, space should be kept as cool as possible.

Placement: Human remains should be stored on gurneys, pallets or on a non-porous floor (something that can be disinfected with a bleach solution). At no time should remains be stacked on top of each other to prevent distortion of features (which could affect identification) and to allow easier moving and lifting of remains. Thought should be given at all times to respect the decedent.

Privacy: Human remains should be stored away from public view.

Ventilation: As human remains decompose they will begin to smell. Your storage location should not be connected into a main ventilation system.

Pest Control: Human remains should be placed on pallets to prevent rodent/pest problems. Other pest control measure should be taken as necessary (e.g. traps)

Location: Places to consider for storing human remains

- A secured portion of a parking garage
- A conference room with air conditioning and non-porous floors
- Other secure, cool spaces

Body Bags: Consider using body bags with the following specifications

- Handles – for easy lifting
- Zipper on the top of the bag – to prevent leaking
- Durable – for long term storage

Refrigerated Truck/Trailer Strategy

During a disaster the supply of refrigerated trucks or trailers will be severely limited and KCMEO will not be able to provide one. Please consider other forms of storage.

Specifications for refrigerated trucks or trailers:

- A normal 40' trailer will hold 22 pouched remains. If shelving is installed at 3-3 ½ feet off the floor the number can be doubled.
- The interior (including the floor) needs to be metal (not wood).
- Electricity and/or diesel fuel will be required to run the refrigerated unit.
 - Electric requirements: 230 volts, 3-phase, 50 amp circuit
 - Fuel: average of 50 gallons per 7 days
- Refrigerated units will require sufficient space for parking, transport and access and exchange of units.
 - Location: accommodate 40ft long by 8 ft. wide; may require tailgate lift, use of forklift or loading dock location
- Truck drivers will be required for movement and transport of the unit.
- Refrigerated units will require maintenance to maintain ongoing operations.

Care of Bodies in Place Strategy

Individuals caring for remains at the incident locations should be aware that bodies will emit fluids after death. Human remains should be kept as cool as possible (ideally between 34-37 F degrees) to help slow postmortem changes. Remains can be placed on plastic (sheeting, garbage bags, tarps) and covered with a cotton sheet or towel. Bodies should be kept in a secured and isolated location, as they will begin to smell after death. Human remains are not dangerous but precautions should be taken with respect to blood borne pathogens in bodily fluid.

Personal effects can remain on the body or can be removed. If removed, all personal effects should be carefully documented and stored. If removing personal effects and the decedent has any form of identification, this should be removed from his or her belongings and placed in a sealable sandwich bag for protection. The bag should be pinned or stapled to the clothing so that it is secured to the body.

After the body has been recovered and removed from site, the area where the body has been stored should be disinfected. This can be done by washing the area with a 10% bleach solution (1 part bleach to 9 parts water).

Body Bag Caches/Tips if no Body Bags Available

Suggested body bag specification:

- Handles – for easy lifting
- Zipper on the top of the bag – to prevent leaking
- Durable – for long term storage

If body bags are not available consider using some of the following materials to store remains:

- Plastic sheets
- Plastic bags
- Plastic Tarps
- Sheets/blankets

Communications with Families

Notifications to Families

Follow normal protocol for notifying the family for patients whose identity is establishing and who died in the care of the healthcare organization. In order to prevent families from receiving potentially conflicting information it is requested that all inquiries about missing or deceased person be referred to the FAC. Positive forensic identification procedures may be required to properly identify the deceased. It is the responsibility of the KCMEO to establish positive scientific identification.

Following a mass casualty or mass fatality incident a Regional Family Assistance Center will be established to take inquires into the status of victims thought to be injured or deceased. The Regional Family Assistance Center will coordinate with the KCMEO and family to make notifications.

During an incident, the Public Health - Health and Medical Area Command will provide information about the status of Regional Family Assistance Centers or phone numbers families should call for more information.

Communication to Families about Medical Examiner Cases

If families are requesting information about Medical Examiner cases, please refer them to the KCMEO. The KCMEO may or may not require additional examination into the cause and manner of death. Each death will require a determination by the KCMEO as to the appropriate steps to take. PLEASE DO NOT make any assumptions about the procedures the KCMEO may or may not take.

Communications with the Media

Individuals who work healthcare are likely to be approached by the media for information on the number of decedents. In order to limit confusion, that information should only be shared with the media by **PHSKC**. If you are approached by a member of the media, you should always direct that person to PHSKC.

If you find that officials in your jurisdiction are sharing numbers with the media, please ensure that those deaths have also been reported to KCMEO. Deaths must be reported to KCMEO to be included in the official numbers; without this there could be widely divergent reports in the media, including double-counting of decedents.

Health Risks Associated with Human Remains

As a rule, human remains do not pose a public health risk to the general population or the environment. Any viruses and bacteria that may be present in human remains do not pose a risk to someone walking nearby, nor do they cause significant environmental contamination. Per the Centers for Disease Control and Prevention (CDC) there is no direct risk of contagion or infectious disease from being near human remains for people who are not directly involved in recovery or other efforts that require handling dead bodies. This includes human remains from pandemic influenza. There are general precautions that should be taken by individuals who may directly handle human remains with regards to minimizing risk associated with blood borne pathogens or bodily fluids that could be infectious.

Personal Protective Measures

Personnel handling human remains:

For people who must directly handle human remains there can be a risk of exposure to some viruses or bacteria (i.e. blood borne pathogens). Workers who handle human remains should follow general precautions as outlined by the Occupational Safety and Health Administration (OSHA). These include as personal protective equipment such as hand protection, foot protection and eye and face protection.

Workers who handle pandemic related human remains should utilize the current recommendations of the World Health Organization (WHO) for personal protective equipment when exposed to infectious agents. These include:

- Disposable, long-sleeved, cuffed gown (waterproof if possibly exposed to body fluids)
- Single-layer non-sterile ambidextrous gloves which cover the cuffs of the long sleeve gown.
- Surgical mask (a particulate respiratory mask if handling the body immediately after death)
- Waterproof shoe covers if required.
- Proper hand washing after handling human remains
- Avoid touching face and mouth with hands

Changes or updates to the guidelines concerning personal protective equipment in handling human remains will be communicated by Public Health – Seattle & King County.

Response Staff Job Functions Recommendations

Mission: Ensures that all human remains are handled, transported, and stored in an appropriate, dignified manner, consistent with policies and procedures. The Morgue Manager ensures that human remains and associated paperwork and identification are linked via chain of custody.

Morgue Leader/Manager Job Functions

Ensure staff are consistently using recommended personal protective equipment and following all other safety and infection control guidelines

- Establish system to receive deceased patient medical records and any associated forms (e.g. death certificate), which accompany the deceased from various treatment areas
- Follow protocol and procedures for receipt, registration, placement into disaster body bag, tagging of the body and/or body bag and storage of all human remains in a dignified manner.
- Maintain a roster/manifest of the deceased that are placed in storage
- Ensure that necessary identification and documentation is linked to associated remains until collection by authorized mortuary personnel or the KCMEO
- Direct how and where bodies are placed within morgue/temporary storage to maximize space utilization
- Identify and indicate which bodies are MFI incident cases vs. day to day cases for appropriate pick up by KCMEO/Funeral Home.
- Provide KCMEO with as much information as possible regarding decedent, Next of Kin, identification, and determination of cause and manner of death (may be designated to report deaths to KCMEO)
- Notify appropriate supervisor of the number of bodies requiring collection

Personal Effect Job Functions

- Maintain roster/manifest of personal effects including description, associated decedent identification information, location and when and to whom the items are handled and are released
- Manage storage of personal effects for extended period of time
- Coordinate with KCMEO/Health and Medical Area Command regarding personal effects if no Next of Kin are available
- Ensure two people are documenting all property (e.g., one person counts money, then the other counts it as well to confirm).

Morgue Security Job Functions

- Ensure security of morgue/temporary storage by providing general surveillance of the storage location and surrounding area
- Monitor access into and out of morgue/temporary storage to authorized personnel only
- Maintain roster of those who enter/exit morgue/temporary storage area

Storage Facility Maintenance Job Functions

- Work with Morgue Manager to identify/establish human remains storage location
- Monitors condition of storage location to check for temperature control, maintenance and sanitation issues
- Manages logistical requirements (e.g. access to fuel, appropriate power supply, coordinate w/drivers if refrigeration trailer used) for maintaining storage operations

Family Liaison Job Functions

- Notifies Next of Kin regarding death
- Handles communication with family regarding death and personal effects as needed