

Monterey County EMS System Policy



Policy Number: 8050
Effective Date: 1/1/2009
Review Date: 6/30/2016

HAZARDOUS MATERIALS MEDICAL RESPONSE PLAN

I. PURPOSE:

To supplement the “Monterey County Operational Area Hazardous Materials Incident Response Plan”, prepared by the Monterey County Health Department Division of Environmental Health, and provide a more detailed medical perspective and serve as a guide to dispatch centers, EMS response agencies, transport paramedics, and acute care hospitals. Also to outline a plan of coordinated medical response to victims of hazardous materials incidents, and provide specific responsibility assignments to responders as well as medical control as established by the base hospitals in Monterey County. To also provide a guideline for decontamination, and protective measures and treatment.

II. PROCEDURE

A. Operational Principles for Rescue:

1. There is a direct relationship between the kind of material, the amount of material and resultant illness. Exposure can lead to injury and death. Risk to personnel is directly related to the amount of contaminant and length of exposure in terms of time.
2. A single small release, with any degree of personnel carelessness, could disable an entire emergency medical system.
3. At-scene personnel safety takes priority over any immediate rescue resuscitation concerns.
4. Pre-hospital health care providers will be unable to respond to other emergencies until decontamination of involved equipment and personnel is accomplished.

B. Response and Activation: The following is a guideline for dispatch agencies when dispatching medical resources to a situation where the presence of hazardous materials is suspected.

1. If the ambulance arrives at scene first, the at-scene crew should advise the ambulance dispatch center of the situation. The ambulance dispatch center shall immediately notify, by telephone, the following dispatch centers and provide the information listed below under section 4 to:
 - a) Law enforcement;
 - b) Fire;
 - c) Medical helicopters (if dispatched);
 - d) Potential receiving hospitals;
 - e) Agency of jurisdiction if not one of the above (e.g. CHP, State parks).

2. If fire service arrives at scene first, the at-scene crew should advise the fire dispatch center of the situation. The dispatch center shall notify immediately the following dispatch centers providing the information listed under section II.B.4 to:
 - a) Law enforcement;
 - b) Ambulance dispatch (Marina, or San Luis Obispo, or Santa Cruz, or San Benito) who will also notify potential receiving hospitals;
 - c) Note: American Medical Response ambulances are equipped with fire frequency radios and therefore direct radio notifications may be a consideration.
 - d) Agency of jurisdiction if not one of the above (e.g. CHP, State Parks)
3. If law enforcement services arrive at-scene first, the at-scene officer should advise the dispatch center of the situation. The dispatch center shall notify immediately the following dispatch centers providing the information listed in section II.B.4 to:
4. Information (if known) to be provided to the other dispatch centers by the first responder dispatch center:
 - a) Name of substance if know (this could include basic information such as container information, placers, color-size odor descriptions, and should be obtained from a safe distance);
 - b) Mode of dispersal (liquid, gas, powder etc.); and
 - c) Extent of contamination, lay of the land;
 - d) Wind direction;
 - e) Alternate travel route;
 - f) Consider activation of an MCI if there are a number of persons exposed.

C. Hospital Notification

In all cases, hospitals should immediately be made aware of any hazardous materials involved. This early alert will allow the hospital(s) to prepare for the eventuality of receiving patients from the incident. This notification should be accomplished even if it appears no person has received exposure. (All too often there may be persons who may have wandered through the incident before the first responders were aware of the problem.) This pre-notification also allows lead-time to establish a screening program thereby minimizing the opportunity for contamination of the facilities by arriving victims who have not otherwise been screened at the incident site by rescuers.

D. First Responding Ambulance

1. If the ambulance is the first responder, upon suspicion of a hazardous material release, the crew should advise the ambulance dispatch center of situation as outlined in this policy. This information will minimize unnecessary and inadvertent exposure to other republic safety personnel and equipment. Thereafter, the ambulance crew shall respond to the area of the incident command center and provide liaison and site support as needed.

2. Every ambulance that is supporting the incident shall be equipped for hazardous material incidents with the following minimal equipment:
 - a) Hazardous material protection Tyvek suits, including boots, gloves and mask; and
 - b) Plastic drip cover to cover the ambulance bench areas, floors, gurney, and flats.
3. Medical responders should always work in the cold zone and never be expected to enter the warm or hot zones.
4. Ambulance staff should collaborate with the Incident Commander/Hazardous Material Safety Officer in establishing a decontamination zone as appropriate.
5. All patient contact in the decontamination areas should be made only by fire personnel who are wearing proper protective equipment. Thereafter in the treatment area, paramedics should provide definitive field care while wearing proper protective equipment.
6. Ambulances should be used only for persons who have sustained injuries or need close medical attention while enroute to a hospital. Consider using non-ambulance transportation, such as a bus or other vehicle, for persons not needing close medical attention.

III. ONSITE TREATMENT

A. Within the Hot and Warm Zone

Considerable risk to rescuers including self-contaminating and restrictions caused by the protection garments makes definitive treatment within the hot zone nearly impossible. Accordingly, medical treatment within the hot and warm zone should be provided by only those trained in hazardous material handling and limited to basic life support procedures, if indicated, followed by rapid transportation to the decontamination corridor by stripped wheeled gurney, or flat/wheeled stretcher system. Undoubtedly, many victims will be walking about and need to be directed to a controlled area for decontamination by whatever means possible.

B. Outside the Hot Zone

Paramedic medical interventions should begin only after the Hazmat Safety Officer along with the Medical Officer concurs with the decontamination process. Treatment should be in accordance with prevailing medical control standard of care and by consultation with the base hospital, as indicated. Only one hospital should act as the coordinating hospital providing at-scene medical control and coordination of treatment using resources such as Regional Poison Control Center and/or Toxic Information Center.

C. Consideration by Acute Care Hospitals

In some cases, persons may arrive at the local hospitals having left the scene without decontamination. Therefore the hospitals should be prepared for this possibility. Hospital security or other staff persons should be located at the hospital front doors and the entrance of the emergency department and query every non-hospital employee as to the reasons for coming to the hospital. The preliminary screening process should

minimize the possibility that person who are contaminated by the incident and who have not benefited by at-scene decontamination are isolated and restricted from entering the hospital. Such inadvertent intrusion could be cause for contamination of employees and the hospital premises. The hospital could be forced to close until a licensed medical decontamination team arrives and complete their task, which could take hours.

IV. MEDICAL TRANSPORTATION

A. Ground Ambulance Preparation

1. There will be no transport until decontamination is performed. Under no circumstances is a contaminated patient to be transported to a hospital via ambulance.
2. Personnel should wear gloves, Tyvek suits, and use standard blood and body fluid protection.
3. A plastic sheet should be placed on the ambulance floor prior to transport.
4. Ventilate the ambulance interior as a precaution for toxic fume build-up.

B. Helicopter Consideration

1. A decision to utilize helicopter services should be decided by collaboration of the Medical Officer, Hazardous Material Safety Officer, and the flight crew.
2. Guidelines outlined in the previous section (ground transportation) should be applied to preparing a helicopter service for providing the transportation of patients.

V. DETERMINATION OF DESTINATION HOSPITAL AND RELATED PREPARATION

A. Destination Hospital

1. The destination hospital should be determined by the standard of the closest, most appropriate. In this case most appropriate is determined by the ability of the hospital to adequately perform secondary decontamination.
2. Whenever information is available that indicates the hazardous material in consideration possesses a significant threat to hospital personnel, consideration should be give by the Base Hospital Physician to triage the patients to a single hospital. This decision should be made based on the potential of danger to attending staff as well as potential to cause the hospital to close its facilities to allow for decontamination of its rooms and equipment.

B. Preparation by Receiving Hospital (s)

1. Internal preparation according to hospital standard.
2. Anticipate walk-in contaminated patients.
3. Anticipate the need fore fine detail decontamination. (e.g. fingernail beds and ear canal of persons who were field decontaminated)

4. In the event contaminated victims arrive at the hospital by private means (i.e. not decontaminated in the field), the hospital should be prepared to decontaminate victims outside the Emergency Department in a predestinated area dedicated for this purpose with the following proper accessories:
 - a) Temperature controlled water hose (low-pressure);
 - b) Kiddy pool or other acceptable catch-basin;
 - c) Expendable or easily decontaminated gurney;
 - d) Towels and sheets for patient;
 - e) Movable screens for privacy;
 - f) Plastic lined garbage receptacles for contaminated clothes and equipment;
 - g) Current contract with a State licensed hazardous materials organization to dispose of contaminated materials and properly perform area decontamination as indicated.

VI. BASE HOSPITAL MEDICAL CONTROL ROLES AND RESPONSIBILITIES

- A. Assignment of Mobil Intensive Care Nurse/Emergency Department Physician to Med-Net radio throughout the duration of the incident.
- B. Collaboration of Base Physician and incident Commander/Hazardous Material Safety Officer on scene as to best method of decontamination.
- C. Provide to paramedics on-line information regarding prodromal symptoms that may be expected as a result of exposure to hazardous materials.
- D. Anticipate walk-in contaminated patients.

VII. DECONTAMINATION OF PREHOSPITAL EQUIPMENT AND PERSONNEL

- A. Prudent utilization of equipment and supplies should minimize equipment and personnel shortages due to contamination during transport. Once the vehicle and equipment are used during transport, they should not return to service until properly licensed personnel are available to effect proper decontamination.
- B. In addition, the following procedures should be followed.
 1. Personnel protective garments should be discarded in designated receptacles at hospital facilities as soon as practical.
 2. Decontamination should take place under the direction of designated hazardous materials personnel.
 3. No medical vehicle and associated hardware and supplies shall be released until the Incident Commander and/or decontamination teams approve.

END OF POLICY