



**SECTION III**

**HEMS Only Protocols**

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## Access to the HEMS Communications System

The following frequencies and CTCSS (“PL”) tones can be used to access the HEMS Communications System.

### VHF Frequencies

VHF frequencies should be used primarily for Basic Life Support ambulance-to-hospital communication. Per the MEDCOM plan, it is desirable that BLS, LALS and ALS be capable of accessing VHF frequencies in the event of failure of the primary (UHF) system, or for intercommunication in mass-casualty situations. LALS and ALS operations are required to use UHF frequencies under normal circumstances.

Simplex Frequency	CTCSS “PL” Code	Location	Use
155.340 MHz	151.4 Hz Encode Carrier Squelch Decode	Bases located in Livonia / Wyandotte	HEAR System – Routine BLS ambulance to hospital communication
155.400 MHz	97.4 Hz Encode Carrier Squelch Decode	Bases located in Canton / Brownstown	Routine BLS ambulance to hospital communication

### UHF Frequencies

Within the HEMS service area, Basic Life Support units are permitted use of the UHF “Med Channels” or the VHF frequencies at their option. LALS/ALS operations are required to utilize UHF channels under normal circumstances. UHF system users must have capability of operation on all of the below listed channels and CTCSS (“PL”) tones. Providers serving communities near the HEMS repeaters are required to equip LALS/ALS units with at minimum a MEDCOM-compliant portable UHF radio and a MEDCOM-compliant UHF mobile radio (or a mobile vehicle adapter “convertacom” device with mobile antenna). Providers serving communities distant from the HEMS repeaters may be required to equip units with vehicular repeater systems to assure consistent patient-side communications. Semi-duplex radios without telemetry capabilities are permitted in this medical control region.

Channel	Mobile/Portable Transmit	Mobile/Portable PL Encode	Mobile/Portable Receive	PL Decode (Recommend Carrier Squelch receive for mobiles/portables)
MED 9	467.950 MHz	West 151.4 Hz Downriver 156.7 Hz Huron Twp. 131.6 Hz	462.950 MHz	West 97.4 Hz Downriver 156.7 Hz Huron Twp. 131.6 Hz
MED 1	468.000 MHz	West 151.4 Hz Downriver 156.7 Hz	463.000 MHz	West 97.4 Hz Downriver 156.7 Hz

		Huron Twp. 131.6 Hz		Huron Twp. 131.6 Hz
MED 3	468.050 MHz	West 151.4 Hz Downriver 156.7 Hz	463.050 MHz	West 97.4 Hz Downriver 156.7 Hz
MED 4	468.075 MHz	West 151.4 Hz Downriver 156.7 Hz	463.075 MHz	West 97.4 Hz Downriver 156.7 Hz

Field units are to use Med 9 for their initial call to HEMS and request a patch to a hospital in the HEMS system, specifying their patients' priority. Med 3 and 4 are the primary channels for ambulance/hospital communication. Med 1 is shared with the Detroit East communications system. Properly assigned MEDCOM unit numbers shall be used when identifying field units within the HEMS radio system.

### **800 MHz Systems**

HEMS Inc. is interconnected to the Wayne County Government and Western Wayne Consortium 800 MHz radio systems. Contact the HEMS office for information on 800 MHz usage.

### **Telephone Access**

Hems Radio Operation  
Hems Console Phone Patch

734 727-7287  
734 727-7286

Revised 4/9/01 Communications/Transportation Committee

## **ECG And Medication Use Documentation ALS/Specialist**

- For LALS and ALS, a copy of the IV/Medication replacement form must be attached to the audit (pink) copy of the EMS Run Report form.
- For ALS, a copy of the ECG strip must be attached to each (Hospital, Service, and Audit) copy of the EMS Run Report for all patients who are placed on a cardiac monitor.

## **Intermediate Airway Procedure**

### **Advanced Life Support Procedure\***

On the arrival of an Advanced Life Support unit at a scene where a non-breathing patient is being treated with a properly placed intermediate airway device\*\* for airway management, the following procedures are to be followed:

- Tube placed in the trachea  
The intermediate airway device is to be left in place for ventilation and, if needed, medication administration.
  - Tube placement in the esophagus
1. IV can be readily established  
The intermediate airway device is to be left in place for ventilation.
  2. IV cannot be established – endotracheal tube must be placed for use as a medication route.  
Intermediate airway device will be left in place.  
Prepare suction for immediate use and suction as necessary throughout the procedure.  
Deflate the pharyngeal balloon only on the intermediate airway.  
Place the endotracheal tube around the intermediate airway.  
If the patient cannot be intubated at this point, secure the airway by re-inflation of the pharyngeal balloon and prepare for transport.

\* Several studies have indicated > 90% SPO2 in patients being properly ventilated using intermediate airway devices, regardless of the placement of the device. As a result, the IA does not need to be immediately removed to place an ET.

\*\* If the airway is not appropriately secured with the intermediate airway, the device must be removed and endotracheal intubation attempted.

## **Additional Automated External Defibrillator (AED) Procedure**

### **Additional Considerations**

Transdermal nitroglycerine patches should be removed before operating the AED.

Caution should be used when applying the AED to a patient who has been recently removed from a wet environment (e.g. drowning victims).

The AED should not be operated in a wet or potentially explosive environment

**Arrival of EMS (Citizen AED in Place)**

If the analyze function has started, the AED will remain activated until completion of the analyze function, and shock (if indicated).

Upon arrival, remove citizen AED, and apply the unit's AED and proceed according to protocol.

**Additional Equipment Use Recommendation**

Any intubated patient that has a pulse (i.e. not in cardiac arrest) should have tube position verified by use of an end tidal CO<sub>2</sub> detector. This should not supplant standard methods of verifying correct tube placement. EMS personnel must be familiar with the use and limitations of this device.

**Required Training**

ACLS completion is mandatory for all ALS (Paramedics) practicing in the HEMS MCA by the end of the 2005, EMS agency relicensure period (June 30, 2005). EMS Agencies will be required to submit documentation of ACLS completion for personnel practicing in the HEMS MCA with their agency license renewal application and CQI report completion. New employees must have ACLS certification before they are allowed to practice in the MCA.

**Recommended Training**

It is recommend that all EMS personnel practicing in the HEMS MCA complete training in nationally recognized PED ACLS, and Adult and Peds Trauma programs (NOT MANDATED).

### **Optional Emergency Cricothyrotomy Protocol (Meiker Catheter Set)**

This is only for use by Paramedics who have been trained in this procedure, prior to its' use, and have regulator training and CQI programs for it's use.

#### Indications:

When bag valve mask ventilation, or intubation, is indicated for emergent airway management, but have failed, or are contraindicated for use.

#### Contraindications:

- Inability to identify the cricothyroid membrane.
- Children under the age of 8 years.
- Burn or infection over the incision site.
- Direct trauma obscuring the landmarks.

#### Procedure:

1. Cricothyroid Membrane is identified and the neck is extended, if not contraindicated.
2. Skin is prepared with an aseptic solution.
3. Stabilize the thyroid cartilage.
4. Make a 2cm vertical incision over the cricothyroid membrane.
5. Introduce an 18 gauge needle (with or without catheter) with a syringe of sterile normal saline into the incision, at a 45 degree angle to the skin, in a caudad (toward the feet) direction.
6. Verification of placement in the trachea, by the aspiration of air through the needle.
7. After verification of correct placement, remove the syringe and insert the wire guide through the catheter or needle, flexible end first.
8. Once the wire is in the trachea, the needle or catheter is removed.
9. The dilator/airway catheter assembly is inserted over the wire guide. (Be sure the stiff end of the wire guide emerges over the handle before inserting the dilator/airway catheter assembly, before inserting the dilator/airway catheter assembly over the wire guide. Never lose control of the stiff end or proximal end of the wire guide.
10. The dilator/airway catheter assembly is advanced over the wire guide into the trachea. (It is important to visualize the proximal end of the wire guide during insertion to prevent inadvertent loss into the trachea. Care should be taken not to advance the tip of the dilator beyond the tip of the wire guide within the trachea)

11. Once the dilator/airway catheter assembly is in the trachea, then the wire guide and the dilator are removed.
12. Connect the airway catheter with a standard airway adapter device.
13. Secure in place.
14. Control any local bleeding.

## **EMS Operations at a Crime Scene**

Although patient care is the first priority, EMS personnel must cooperate with law enforcement to preserve the integrity of the crime scene.

1. Examples of crime scenes
  - A. Homicide
  - B. Criminal Sexual Conduct (Sexual Assault)
  - C. Felonious Assault (Serious injury due to shooting/stabbing)
  - D. Robbery or Breaking and Entering
  
2. Examples of Physical Evidence present at scenes  
**DO NOT PICK UP, MOVE, OR DISTURB THESE ITEMS**
  - A. Fingerprints, or any object which may provide fingerprints
  - B. Footprints (especially when raining or snowing)
  - C. Blood
  - D. Semen
  - E. Hair
  - F. Fibers
  - G. Weapons
  - H. Means of Death
    1. Drugs
    2. Syringes
    3. Nooses, wires
    4. Weapons (guns, knives, blunt force weapons)

Be prepared to give a statement to the Police Department regarding what you observed, heard, and did at the crime scene or what you were told by the bystanders or the patient.

## **Medical Response to a Crime Scene**

NO NOT ENDANGER YOURSELF WHILE ATTEMPTING TO TREAT A PATIENT OR WHILE AT THE CRIME SCENE. The number one priority when responding to a crime scene/potential crime scene is YOUR OWN SAFETY!! If the scene is not secure, do not enter. If law enforcement is already on scene, they determine if the scene is secure.

NOTIFY THE POLICE DEPARTMENT OF ALL SUSPECTED CRIME SCENES!

**BEFORE ATTEMPTING THE FOLLOWING PROCEDURES, IMPLEMENT APPROPRIATE BLOODBORNE AND/OR AIRBORNE PATHOGEN PROTECTIVE PROCEDURES.**

### **Pre-radio**

MFR/BLS/LALS/ALS

1. Treat patient's injuries/illnesses according to protocol. PERFORM ONLY THE MINIMUM TREATMENT NECESSARY TO SAFELY MOVE THE PATIENT while in the crime scene area. Move as quickly as possible to the ambulance, or other secure area, and complete treatment there.
2. Limit number of personnel that enter the crime scene. Only those necessary to sufficiently care for the patient should be allowed.
3. If possible, do not allow bystanders or patient's family and friends to enter the scene and possible destroy evidence (see EMS Operations at a Crime Scene for examples).
4. If the patient appears dead, determine if they meet the criteria for Dead on Scene protocol. Do not examine the body or injury any more than is necessary to determine DOS. Leave the crime scene area as soon as possible.

DO NOT roll or move the body.

DO NOT leave bandages, packages, medical waste, or other items you brought on the scene.

DO NOT do anything else that might disturb physical evidence (see EMS Operations at a Crime Scene for examples).

## **Radiation Emergency Procedure**

### Dispatch Responsibilities

All responding units must be notified if the dispatcher suspects a radiation emergency.

Ensure that the local Fire Department and Police Departments are aware of the incident.

### Crew Responsibilities

#### **Pre-Incident**

If radiological response equipment is stocked on the vehicle, the crew must inspect/check all equipment at the start of every shift, in accordance with in-house policy/procedure.

#### **On-Scene: First Responders**

1. Ensure that the appropriate state and local agencies are notified .
2. Remain upwind of the incident. **EVEN IF PATIENTS ARE VISIBLE/OBVIOUSLY INJURED, DO NOT ENTER THE SCENE UNLESS PROPERLY TRAINED AND EQUIPPED!!!**
3. Notify all responding units of the upwind position.
4. Isolate the area and deny entry of others.
5. Attempt to identify the type of exposure involved (irradiation or contamination). If unknown, treat the incident as a contamination.
6. The jurisdictional fire department will establish and utilize the Incident Command System for these incidents.
7. If patients are visible and ambulatory, but are contaminated, then establish an area of refuge upwind of the incident site where they may be isolated for decontamination. Do not enter this area to begin triage or treatment unless properly trained and equipped.

#### **One Scene: Secondary Responders**

1. The Incident Command System will be utilized for these incidents. In a radiological incident, the medical response is only a very small portion of all the events/responses being coordinated. In addition, many things must take place before the medical responders are allowed to perform their duties (i.e., containment of the incident, establishing “safe” areas for personnel to work, establishing a decontamination area, etc.). All secondary responders must work within the Incident Command structure. Most likely a Medical Officer will be appointed from the fire department personnel on the scene, to coordinate the medical response. All secondary response personnel must report to this individual.

1. Report to the location specified by the Incident Commander/Medical Officer on scene.
2. Fire department personnel must ensure that contaminated patients are not a source of contamination prior to treatment/transportation. This includes removing clothing and jewelry that might trap radioactive materials.
3. When transporting/treating contaminated patients, personnel must wear protective equipment appropriate for the remaining risk. A fire department representative will provide advice/assistance in these situations.

**Post-Incident**

1. All responding personnel , vehicles, and equipment must be checked by radiological personnel for possible contamination prior to being released to return to duty.
2. All personnel should shower and change clothing prior to returning into service.
3. Some form of Critical Incident Stress Debriefing may be appropriate for some personnel. Each employer is responsible for this process.

## **Hazardous Material Procedure**

### Dispatch Responsibilities

In addition to routing information, try to obtain the following information:

1. Exact nature of illness/injury.
2. Type of location (i.e., highway, factory, farm, office building, etc.).
3. If the call is for an auto accident, attempt to identify the types of vehicles involved. (i.e., passenger, tanker, cargo truck, lab courier, etc.).
4. The exact identity of the hazardous material involved.

All responding units must be notified if the dispatcher suspects a hazardous material is involved in the incident.

It is the jurisdictional fire department's responsibility to activate the HAZMAT team.

### Crew Responsibilities

#### **Pre-Incident**

If hazardous material protective equipment is stocked on the vehicle, the crew must inspect/check all equipment at the start of every shift, in accordance with in-house policy/procedure.

#### **One Scene – First Responders**

1. Ensure that the HAZMAT team is responding.
2. Remain at least 300 feet upwind of the incident. **EVEN IF PATIENTS ARE VISIBLE/OBVIOUSLY INJURED, DO NOT ENTER THE SCENE UNLESS PROPERLY TRAINED AND EQUIPPED!!!**
3. Notify all responding units of the upwind position.
4. Isolate the area and deny entry of other.
5. Note any DOT numbers or placard that might aid in identifying the hazardous material.
6. Attempt to positively identify the hazardous material using the DOT guidebook and follow any initial instructions given in the appropriate guide number. Do not contact Chemtrec until as much of the information on page "v", near the front of the book, as possible has been obtained.
7. The jurisdictional fire department and/or the HAZMAT team will establish and utilize the Incident Command System for these incidents.
8. Attempt to determine the number and severity of the injuries, and the degree of injury from the hazardous material.

9. If patients are visible and ambulatory, but are contaminated by the hazardous material, then establish an area of refuge upwind of the incident site where patients may be isolated for decontamination. Do not enter this area to begin triage or treatment unless properly trained and equipped.

### **On Scene – Secondary Responders**

The Incident Command System will be utilized for these incidents. In hazardous material emergencies, the medical response is only a very small portion of all the events/responses being coordinated. In addition, many things must take place before the medical responders are allowed to perform their duties (i.e., containment of the incident, establishing “safe” areas for personnel to work, establishing a decontamination area, etc.). All secondary responders must work within the Incident Command structure. Most likely, a Medical Officer will be appointed, from the fire department personnel on the scene, to coordinate the medical response. All secondary response personnel must report to this individual.

1. Report to the location specified by the Incident Commander/Medical Officer on scene.
2. Coordinate with a HAZMAT team member for the appropriate medical treatment of patients (i.e., some medical procedures are contraindicated in the presence of certain hazardous materials).
3. All non-emergency patients should be fully decontaminated prior to being treated/transported by medical responders not trained/equipped to deal with contaminated patients.
4. All priority #1 patients must be at least grossly decontaminated prior to being treated/transported by medical responders not trained/equipped to deal with contaminated patients.
5. If necessary to transport a patient after only gross decontamination, personnel must wear protective equipment appropriate for the remaining risk. A HAZMAT team member will provide advice in these situations.

### **Post-Incident**

1. All personnel coming in contact with patients that have not been fully decontaminated, **MUST** remove and bag all clothing and shower in a decontamination shower (one that collects the runoff) prior to returning to duty.
2. All personnel exposed to contaminated patients **MUST** document that exposure on the Medical Report Form and an Exposure Report Form to be filed by the employer.
3. If symptoms of an exposure occur at any time after the incident, personnel **MUST** obtain a complete physical and post-exposure procedure should be followed.
4. A complete post-incident analysis should be completed as soon as possible, after the incident, usually within 72 hours.
5. Some form of Critical Incident Stress Debriefing may be appropriate for some personnel. Each employer is responsible for this process.

## **Hazardous Materials – Medical Treatment**

The following protocol is a medical treatment protocol. **YOU MUST SEE THE HAZARDOUS MATERIALS PROCEDURE FOR THE APPROPRIATE HAZARDOUS MATERIALS OPERATIONAL PROCEDURES PRIOR TO USING THIS PROTOCOL!!!**

Hazardous material incidents present special problems for emergency responders. If you are not trained and do not have the appropriate protective equipment, **DO NOT ENTER THE SCENE!!!** The Wayne County HAZMAT team should be called by the local municipality to deal with the incident.

Any patient who has come in contact with the hazardous material **MUST** be decontaminated, by appropriately trained and protected personnel, prior to treatment and transportation by EMS personnel.

Priority #1 patients must have, at least, a gross decontamination performed prior to treatment or transportation by EMS personnel. Some priority #1 patients may need to go through the entire decontamination process prior to treatment or transportation, based on the specific hazardous material. **FOLLOW THE HAZMAT TEAM UNDER ALL CIRCUMSTANCES!!!**

**BEFORE ATTEMPTING THE FOLLOWING PROCEDURES, IMPLEMENT APPROPRIATE BLOODBORNE AND/OR AIRBORNE PATHOGEN PROTECTIVE PROCEDURES.**

### **Pre-radio**

MFR/BLS/LALS/ALS

1. Overview the scene. If appropriate, notify HEMS of any multi-casualty situation.
2. Identify all patients. When determining patient condition, take into account injury/illness caused by the hazardous material and any underlying condition (i.e., CVA, AMI...)
3. Verify all patient treatment with a HAZMAT team member prior to initiating any treatment (some treatment may be contraindicated due to the nature of the hazardous material).
4. After verifying treatment, follow the appropriate treatment protocol based on the patient's injuries/symptoms. Do not initiate invasive procedures, unless directed by Medical Control in conjunction with a HAZMAT team member. Patients with the potential for laryngeal edema should be **intubated** as soon as possible.
5. If not contraindicated, for inhalation injuries Oxygen at 10-15 lpm via non-rebreather mask.

6. If not contraindicated, for skin/eye exposure, irrigate with sterile water/NS. Attempt to contain the run-off.
7. Do not induce vomiting for ingestion, unless directed to do so by Medical Control in conjunction with a HAZMAT team member.
8. IF NECESSARY TO TRANSPORT PATIENTS THAT HAVE NOT BEEN FULLY DECONTAMINATED, PERSONNEL MUST WEAR PROTECTIVE EQUIPMENT APPROPRIATE FOR THE REMAINING RISK. THE HAZMAT TEAM WILL PROVIDE ADVICE FOR THESE SITUATIONS, AND MUST BE CONSULTED PRIOR TO GOING NEAR WITH PATIENT!!!
9. The patient is not fully decontaminated, use plastic or emergency blankets to isolate the patient from EMS personnel and the ambulance by using the “cocooning” technique (completely wrap the patient as if in a cocoon, except around the face).

**Post-radio**

MFR/BLS/LALS/ALS

1. Advise Medical Control of extent of remaining contamination, the need for further decontamination, and the nature of the hazardous material.

## **Multiple Patient Incidents**

Local Incident – 5-10 patients

Minor Emergency – 11-25 patients

Major Emergency – 26 + patients

<b>DISTRIBUTE PATIENTS APPROPRIATELY. DO NOT OVERLOAD INDIVIDUAL Eds WITH PATIENTS FROM A SINGLE INCIDENT.</b>
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### **Procedures**

Consistent with local plans, and EMS unit arriving at the scene of a multiple patient incident should proceed according to the following guidelines:

1. First unit arriving assess scene and establish command post.
2. Request additional resources as needed from Mutual Aid and private sector.  
Portable radio and supply trailer are available from Metro Airport FD and may be requested thru HEMS Radio.
3. Notify HEMS immediately. Be prepared to give the following information:
  - A. nature of incident.
  - B. Exact location of incident.
  - C. Approximate number of patients.
  - D. Unit identification and location of Command Post and identity of the Medical Command Officer.
  - E. Request for additional resources.
  - F. Exact location of staging area for additional arriving units and personnel.  
**ALL ADDITIONAL RESPONDING UNITS AND PERSONNEL ARE TO REPORT TOT HE STAGING AREA AND PROCEED FROM THERE ONLY AS DIRECTED BY THE COMMAND POST.**
  - G. Special factors (i.e. radiation or chemical hazard).
  - H. Hospitals which will probably receive patients from the incident.
4. HEMS will:
  - A. Assign a MEDCOM channell for communication with the Command Post.
  - B. Contact area hospitals (including trauma/burn centers) to access capacity to receive patients.
  - C. Contact private ambulance services to obtain additional units as requested by Command Post.
  - D. Notify surrounding hospitals and medical communications centers of the incident.

5. Incident Command should, as needed, assign the following to duties as defined in protocol:
  - A. Triage Officer
  - B. Transportation Officer
  - C. Communication Officer
  - D. Staging Officer
6. If the scene is unsafe, patients should be removed to a safer area for triage and treatment. If the scene is safe, patients should be triaged and moved to a Treatment/Transportation area by priority.
7. Triage patients as follows (Triage tags should be utilized):
  - A. Priority 1 - Red – Immediate, move first.
  - B. Priority 2 –Yellow – Urgent, move promptly
  - C. Priority 3 - Green - Minor, Walking wounded, delayed transport.
  - D. Priority 4 Black – Obviously dead or mortally injured.
8. As soon as the initial assessment is completed, update HEMS of the number of patients by priority and major type of injury.
9. HEMS will advise the Command Post of area hospitals' capacity to receive patients. Incident Command will direct the distribution of patients based on this information and advise HEMS as described below.
10. The Incident Command will provide each hospital with the following information regarding each ambulance transporting patients:
  - A. Transporting unit #.
  - B. Number and priority of patients.
  - C. Major injuries.
  - D. ETA
  - E. ***NO COMMUNICATION SHOULD BE CONDUCTED BETWEEN TRANSPORTING UNITS AND RECEIVING HOSPITALS UNLESS CHANGE IN PATIENT CONDITION OR ADDITIONAL INFORMATION WARRANTS RADIO CONTACT.***

## **Instructions for Completion of the INPATIENT HOSPITAL BED/BLOOD/ MEDICATION STATUS FORM**

This form is intended to provide real-time quantitative data regarding the availability of hospital beds, blood and medications during a disaster. This form currently includes the current National Disaster Medical System (NDMS) bed reporting categories (as of 2/21/03).

### **Uses**

In general, the form can be used under the following circumstances:

- to facilitate NDMS bed checks
- by an EOC (local/regional) in determining the availability of beds, blood and certain medications and equipment during a disaster.
- by hospitals, during a hospital evacuation
- by a facility, during a disaster drill, to simulate real-time reporting.

### **General Directions**

1. The agency requesting the information from a hospital would complete the following sections of the form:
  - The top box, indicating the type of:
    - event occurring
    - beds that the agency is inquiring about.
  - The 3 blank lines at the bottom right of the page, indicating the requesting agency's name, phone number and fax number.
2. The form would then be sent to a hospital, via e-mail or fax.
3. The hospital would complete the form and then e-mail or fax it back to the requesting agency (information is located adjacent to the "Fax to" on the bottom right of the form).
4. The requesting agency will then receive and tabulate the information.

HEMS MCA Only Protocols

**INPATIENT HOSPITAL BED/BLOOD/MEDICATION STATUS**

To be filled out by EOC/MCA requesting information:

EVENT:    \_\_\_ National Disaster Medical System           \_\_\_ Hospital Evacuation           \_\_\_ Other \_\_\_\_\_  
 TYPE OF BEDS:   \_\_\_ Specific Type           \_\_\_ All Available/Licensed           \_\_\_ Virtual/Flex \*\*

\*\*Virtual/Flex beds = the maximum number of beds/stretchers your facility can accommodate to provide patient care.

Remainder of form to be filled out by hospital:

NAME OF HOSPITAL/FACILITY           CONTACT PERSON           Date           Time  
 \_\_\_\_\_  
 CONTACT PERSON'S PHONE #           FAX #  
 \_\_\_\_\_

PATIENT CATEGORY	# of Beds
<b>*MEDICAL (MM)</b> If specialty beds available specify quantity ____ Neurology	
<b>*SURGICAL (SS)</b> If specialty beds available specify quantity: ____ Maxillofacial           ____ Spinal Cord ____ Neurosurgery           ____ Thoracic ____ Ophthalmology       ____ Urology ____ Orthopedic	
<b>*BURN (SBN)</b>	
<b>*CRITICAL CARE (CC)</b> (Coronary Care Unit, Intensive Care Unit, Surgical ICU)	
<b>OTHER MONITORED BEDS</b> (Step down, Intermediate)	
<b>*PEDIATRIC (MC)</b>	
<b>PICU</b> (Pediatric Intensive Care Unit)	
<b>NICU</b> (Neonatal Intensive Care Unit)	

Type	# of Units Packed RBC's	# of Units FFP
A+		
A-		
B+		
B-		
AB+		
AB-		
O+		
O-		

Adult Medications Available	# Doses
Atropine (IV)	
Ciprofloxacin (PO)	
Doxycycline (PO)	
Potassium Iodide (PO)	
Ventilators Available	

Current ED Status \_\_\_ Open \_\_\_ Rerouting  
 Total # of Patients ED can accept \_\_\_\_\_  
 Fax To: \_\_\_ HEMS \_\_\_\_\_  
 Requesting Agency Name  
 734) 727-7280  
 Requesting Agency Phone  
 (734) 727-7281  
 Requesting Agency Fax

**\*NDMS BED STATUS REPORT**

## HEMS MCA Only Protocols

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### HEMS, INC. PRE HOSPITAL GUIDELINE FOR INCIDENTS INVOLVING “SUSPICIOUS POWDERS”

#### INITIAL CALL TO 9-1-1 CENTER

The 9-1-1-center call taker will conduct an initial threat assessment. Based upon the information obtained from the assessment, the call taker may initiate one of the following:

- A. Have the individual contact the sender to confirm the shipment and contents of item.
- B. Provide reassurance to the individual.
- C. Dispatch an individual to assess the suspicious powder.
- D. Initiate a HAZMAT response, with contact to Emergency Management for appropriate notification of the FBI and Health Department.

#### EMS RESPONSE GUIDELINES

When responding to an incident involving suspicious powders EMS should:

- A. Not handle or come into close contact with the suspicious powder if it is clearly visible from a distance.
- B. If law enforcement is not on scene, notify the jurisdictional law enforcement agency. **DO NOT ENTER THE SCENE** until the suspicious powder is evaluated by law enforcement and declared a non-hazard.
- C. If the incident involves HAZMAT, follow HAZMAT Team guidance.
- D. **IT IS NOT NECESSARY TO TRANSPORT THESE INDIVIDUALS TO THE HOSPITAL FOR THESE EXPOSURES UNLESS HE OR SHE APPEARS ILL OR INJURED.**
- E. ANY patient who has come in contact with the suspicious powder **MUST** have, at least, a gross decontamination performed, by appropriately trained and protected personnel, prior to treatment or transport to the hospital.
- F. When transporting the patient use plastic or emergency blankets to isolate the patient from EMS personnel and the ambulance by using the “cocooning” technique (completely wrap the patient as if in a cocoon, except around the face).
- G. EMS personnel must implement the use of appropriate PPEs when providing care to patients contaminated with a suspicious powder (even after gross decontamination). At a minimum, EMS personnel should wear double gloves and hepa mask.

#### HOSPITAL NOTIFICATION

When making radio report to the closest appropriate hospital with capability to treat biological/chemical contaminated patients EMS personnel must:

- A. Include pertinent information on the suspicious powder and decontamination at the scene.
- B. Ask the hospital if there is an alternate entrance that should be used.

#### DECONTAMINATION OF EMS PERSONNEL AND EQUIPMENT

EMS personnel and equipment should follow recommended guidelines for individual and equipment decontamination. This may include the following:

- A. As soon as possible the exposed individuals should shower with soap and water.
- B. Place all clothing items that had direct contact with a suspicious powder into plastic bags for appropriate disposal.
- C. Wash equipment with a 10% solution of bleach.
- D. If HAZMAT Team is on site, follow HAZMAT Team guidance for individual and equipment decontamination.

#### RECORD KEEPING OF POTENTIAL EXPOSURES

- A. Each EMS agency should keep a list of all potential exposures to their personnel.

#### REFERENCES

- A. HEMS protocol “Hazardous Material Procedure”
- B. HEMS protocol “Hazardous Material – Medical Treatment”
- C. HEMS protocol “EMS Operation at a Crime Scene”
- D. HEMS protocol “Medical Response to a Crime Scene”
- E. Additional material references distributed with this protocol

10-31-01 version

This protocol is intended to provide guidelines for EMS providers that may transport a suspected SARS patient, while ensuring the safety of the patient and EMS personnel. These are the most current CDC recommendations and are based on standard infection control practices.

## **PRE-HOSPITAL TRANSPORT**

### Pre-Radio

#### MFR/EMT/SPECIALIST/PARAMEDIC

1. Follow General Pre-Hospital Care Protocols
  - Oxygen delivery with simple and non-rebreather facemasks may be used for the patient
  - The use of nebulizers should be avoided, because of the chance of aerosolization of droplets.
  - Contact medical control if there are any questions.
  
2. Evaluate the patient to determine if they are a potential SARS patient \*:
  - **Has the patient, in the 10 days prior to onset of symptoms:**
    - ❑ Traveled (including transit in an airport) within the last ten days to China; Hong Kong; Hanoi; Vietnam; Singapore; Taiwan or Toronto.
    - OR**
    - ❑ Been in close contact with anyone with a probable or suspected case of SARS.
  
  - **AND, do they have any of the following clinical symptoms:**
    - ❑ Temperature greater than 100.4 F
    - ❑ OR one or more of the following respiratory symptoms, cough, shortness of breath, difficulty breathing, hypoxia.
  
3. If patient meets the above criteria, proceed with the remainder of this protocol.
  
4. Crew will consider the patient to be both airborne and contact contagious. Crew will don the following PPE:
  - N95 or higher protective mask
  - Gloves
  - Gown
  - Goggles or face-shield

**DO NOT REMOVE protective equipment during a suspected SARS patient transport (this includes the driver of the vehicle).**
  
5. Patient may wear a paper surgical mask to reduce droplet production as long as it does not increase their respiratory symptoms and is well tolerated.

6. Main dashboard vents should remain open with rear ventilation fans turned on at the highest setting during transport of SARS patients to maximize air-exchange.
7. Receiving facility must be notified prior to transport of a potential SARS patient to facilitate preparation of appropriate infection control procedures and facilities. This may include transportation directly to a negative pressure room which may not be in the emergency department.
8. Whenever possible, limit additional passengers traveling with the patient in the ambulance.
9. If possible, obtain a list of all response personnel on scene.

Cleaning and Disinfection after transporting a possible SARS patient **MUST BE DONE IMMEDIATELY.**

- PPE must be worn during cleaning and disinfection.
- Contaminated non-reusable equipment/linen should be placed in biohazard bags and disposed of at the hospital in accordance with the direction from hospital personnel.
- Contaminated reusable patient care equipment/linen should be placed in biohazard bags and labeled for cleaning and disinfection. Reusable equipment should be cleaned and disinfected according to manufacture's instruction.
- The vehicle (front and back) will be decontaminated by using an EPA-registered hospital disinfectant in accordance with manufacturer's recommendations.
- All PPE worn during transport and cleaning should be considered contaminated and disposed of accordingly.
- Hands must be washed or disinfected with a waterless hand sanitizer immediately after removal of gloves.

INTERFACILITY TRANSFER

1. Follow the "Pre-hospital transport guidelines" (above) for inter-facility transfers.
2. Prior to transporting the patient, the receiving facility should be notified and given an ETA for patient arrival, allowing them time to prepare to receive this patient.
3. Clarify with receiving facility the appropriate entrance and route inside hospital to be used once crew has arrived at the receiving facility.

Mechanically Ventilated Patients

- Mechanical ventilators for SARS-patient transports must provide HEPA filtration of airflow exhaust.
- EMS providers should consult their ventilator equipment manufacturer to confirm appropriate filtration capability and the effect of filtration on positive pressure ventilation.
  
- BIPAP, CPAP and nebulizers should be avoided if possible because of increased spread of disease when used.

**\*Please note that the case definition for SARS continues to change, therefore the criteria listed here may change. Please be sure to see the following web site for more information specific to EMS TRANSPORTS and for UPDATED CASE DEFINITIONS [WWW.CDC.GOV/NCIDOD/SARS/EMTGUIDANCE.HTM](http://www.cdc.gov/ncidod/sars/emtguidance.htm) or <http://www.cdc.gov/ncidod/sars/>**

