trauma patients. **Base Station will maintain a current list of hospital trauma center designations.**

3.26 Treatment Area – The area where the Treatment Group re-triages and treats patients, completes the Regional Disaster Tags, places the disaster tags on the patients, and where patients await movement to their transport units.

3.27 Triage – The process of sorting and prioritizing emergency medical care of the sick and injured based on: urgency and type of condition(s) present; number of patients; available personnel and resources to care for patients; and availability of medical facilities to care for patients.

3.28 Unresponsive Patient – A patient not capable of producing any verbal or physical response to stimuli.

4.00 SCOPE

4.01 This guideline is applicable to all personnel and/or representatives of the Houston Fire Department.

5.00 RESPONSIBILITIES

5.01 All personnel will be responsible for adhering to the guidelines outlined in this document.

5.02 The Incident Commander shall be responsible for the management of Mass Casualty Incidents and will follow the HFD Incident Management Guidelines (Ref. II-06).

5.03 OEC will be responsible for: maintaining communications with HFD and Mutual Aid Companies; dispatching the appropriate units according to information communicated by the IC; and notifying Base Station by telephone and pager when a MCI has been declared by the IC.

6.00 GUIDELINES

Similar to the initial stages of a multiple-alarm fire response, management of a Mass Casualty Incident will have a natural progression. An MCI will typically start with a limited number of firefighters who are managing a potentially large number of patients. One of the primary responsibilities of the first arriving unit(s) will be to estimate the number of patients on the scene. This may be difficult, especially in large venues (e.g., high rises, stadiums, night-time operations, etc.) but will be necessary in order to determine the initial MCI Response Level. Members should not be overly concerned with providing an exact number of patients in this initial count.

The typical flow of patient management will begin with Triage, then progress to Treatment and Transport. Members will triage patients utilizing START and JumpSTART Triage techniques, mark each patient's triage category with the appropriately colored ribbons, and move the patients into the treatment area. If the MCI is a haz-mat situation, standard guidelines on PPE and decontamination will apply. Once in the treatment area, the patients will be tagged with the recognized Regional disaster tags, re-triaged, and given necessary medical treatment. Members should remember that the main goal is to transport the critically injured patients to the most appropriate hospital as soon as possible. (**Remember: Triage=Ribbons, Treatment=Tags**)

Keeping an accurate roster of ALL patients has historically been a challenge in MCI management. Emphasis on setting up the Transportation group early cannot be overstated. This can be the most critical component to a well-managed MCI, and requires an experienced individual with a good understanding of these guidelines to be the Transportation group leader.

Note: If more than one location is needed for any group, a location should be included in the designated call sign. (Example: "Main Street Treatment")

6.01 Multiple Patient Incident – If an incident is made up of primarily low acuity patients not requiring decontamination, the on-scene Incident Commander will request units as needed per HFD Incident Management Guidelines (Ref. II-06). Incidents requiring more than 3 transport units will receive a 710 page. If the IC determines that a scene has escalated to a Mass Casualty Incident, the IC will request the appropriate MCI Level Response.

6.02 Activation of the Mass Casualty Incident Plan and Communications:

A. Incident Commander: The IC will "size up" the incident and make a determination of estimated number of potential patients. From the number of estimated patients, the unit(s) will request the appropriate Level MCI response through OEC.

B. Office of Emergency Communications (OEC)
1. When notified of an MCI, the HFD Radio Operator will perform the actions indicated in the Mass Casualty Incident Checklist.

2. The HFD Radio Operator will send units to the scene according to which Level MCI is declared by the Incident Commander:

Level 1 MCI Response
Initial Units dispatched
PLUS

1 EMS Task Force (1 Supervisor & 5 transport units – 2 ALS capable)

1 Senior EMS Supervisor
3 BLS Apparatus (Engine and/or Ladders)
1 District Chief and EMS District Chief (1100)

- The IC may request OEC to send additional EMS, Fire, or Special Ops units as necessary (including DECON units).
- The IC may request OEC to send MPV-602 (AMBUS station 8)
- The IC may consider the use of a METRO bus resource to transport the “walking wounded” (Green-Minimal).
- Mutual Aid units may be utilized as necessary, including MPV-601 (Atascocita AMBUS).
- An MCI notification will be initiated.

Level 2 MCI Response
Initial Units dispatched
PLUS

2 EMS Task Forces
1 Additional EMS Sector Supervisor
*NOTE: there will be a total of 3 EMS Sector Supervisors including those from the EMS Task Forces
1 Senior EMS Supervisor
1100 (EMS District Chief)
5 BLS Apparatus Units
1 District Chief

- The IC may request OEC to send additional EMS, Fire, or Special Ops units as necessary (including DECON units).
- The IC should request OEC to send MPV-602 (AMBUS station 8)
- The IC may consider the use of a METRO bus resource to transport the “walking wounded” (Green-Minimal).
- Mutual Aid units may be utilized as necessary, including MPV-601 (Atascocita AMBUS).
- An MCI notification will be initiated.
- Consider requesting MCI trailer

Level 3 MCI Response
Initial Units dispatched
PLUS

3 EMS Task Forces
1 Additional EMS Sector Supervisor
*NOTE: There will be a total of 4 EMS Sector Supervisors including those from the EMS Task Forces
2 Senior EMS Supervisors
1100 (EMS District Chief)

10 BLS Apparatus Units
2 District Chiefs
1 Safety Officer
Rehab Van
Communications Van
Shift Commander

- The IC may request OEC to send additional EMS, Fire, or Special Ops units as necessary (including DECON units).
- The IC should request OEC to send MPV-602 (AMBUS station 8)
- The IC may consider the use of a METRO bus resource to transport the “walking wounded” (Green-Minimal).
- Mutual Aid units may be utilized as necessary, including MPV-601 (Atascocita AMBUS).
- An MCI notification will be initiated.
- Consider requesting MCI trailer
- The Medical Director or IC may consider activating CMOC.

C. Base Station

1. When notified of the MCI activation, the Base Station will page the on-call medical director and perform the actions indicated in the Mass Casualty Incident Checklist (Attachment 4).

6.03 Mass Casualty Incident Management

A. Incident Command will establish a Medical Branch and appoint the most highly qualified EMS Captain, Senior Caption, or 1100 as the Medical Branch Director.
B. The radio call sign of the Medical Branch is “Medical”.
C. The Medical Branch will consist of 3 groups: Triage, Treatment, and Transport.
D. When IC has determined the incident has entered the demobilization phase, command may be transferred to the medical branch and return unnecessary resources to service.

6.04 Medical Branch

The highest ranking EMS Officer on scene should be the Medical Branch Director (1100, Sr. EMS Supervisor, EMS Sector Supervisor). The Medical Branch Director will have responsibility for all medical operations on scene. See Attachment 3.

In coordination with the incident commander, the Medical Branch Director will designate the following:

- A Medical Branch Assistant, if necessary
- Triage Group Supervisor
- Treatment Group Supervisor

- Transportation Group Supervisor

A. Triage
   1. The Triage Group is led by the Triage Group Supervisor. The radio call sign is "Triage". The primary tasks of this group are:
      a. Triage all patients where they are found (if possible).
      b. Rapidly estimate the number of patients.
      c. Forward information on the number of ambulatory and non-ambulatory patients to the Medical Branch Director immediately.
      d. As soon as possible, forward information to the Medical Branch Director on the estimated number of patients in each triage category.
      e. Move patients to the Treatment Area.

   2. Hot Zone Triage – Contaminated Patients (if applicable):
      a. Engine and Ladder Companies shall instruct (and assist as necessary) all ambulatory victims to move to the gross decontamination area, using the public address (PA) system if available.
      b. Personnel that are triaging patients in the hot zone will:
         1) Rapidly mark the remaining responsive patients with 2 feet of ORANGE ribbon tied around the right wrist.
         2) Mark unresponsive patients with 2 feet of BLUE ribbon tied around the right wrist.
         3) Move the responsive (orange- ribboned) patients to the decontamination area first, then move the unresponsive (blue- ribboned) patients to the decontamination area (Haz-Mat team members should be utilized to do this if available).

   3. Triage (START and JumpSTART) begins immediately if there is no contamination involved, **or after contaminated victims have passed through gross decontamination.**
      a. The Triage Group Supervisor and/or designees will verbally direct all victims who can walk to a designated area. All victims who can walk are initially triaged into the minor (GREEN) category.
      b. Utilizing START and JumpSTART triage techniques, the Triage Group sorts the remaining patients into one of four categories:
         - Immediate (RED)
         - Delayed (YELLOW)
         - Minor (GREEN)
         - Dead (BLACK)

c. The Triage Group will mark each patient with 2 feet of colored ribbon on the right wrist. All victims who can walk are initially triaged into the minor (Green) category.
   * **NOTE:** Minor (Green) patients will not receive a ribbon. These patients will, however, receive a Regional Disaster Tag upon entry into the Treatment Area.
   - The Triage Group is responsible for moving patients into the treatment area.

4. As a guideline, triage requires a minimum of 1 BLS Apparatus (engine or ladder company) for every 4 immediate (red) or delayed (yellow) patients. The triage and stretcher-bearers are in this group.

5. Post Triage Activities
   a. Ensure dead bodies are secured.
   b. When all red/yellow patients are transported from the Treatment group, reconfirm all black triaged patients are dead. If a pulse is present or they have signs of life, re-triage as red and move immediately to the treatment group.

B. Treatment
1. The Treatment Group is led by the Treatment Group Supervisor. The radio call sign is "Treatment". The primary tasks of this group are:
   a. Re-triage patients as they are brought into the treatment area until transportation is available.
   b. Place the Regional Disaster Tag on each patient and remove the triage ribbon from the patient's wrist.
   c. Update the Medical Branch Director periodically on number of patients remaining in each triage category.

2. The Treatment Group contains 3 separate treatment units. Each treatment unit is led by a unit manager. These units are:
   a. Immediate Treatment Unit (red)
   b. Delayed Treatment Unit (yellow)
   c. Minor Treatment Unit (green)

   * **NOTE: Treatment units may be marked with a colored flag, tarp or salvage cover.**

3. The Treatment Area that a patient occupies (red, yellow, or green) is the primary indicator of that patient's triage category. The color of the ribbon or disaster tag on the patient is secondary. Members should be constantly re-triaging patients as their conditions change. If a patient's condition changes while in treatment, the

patient shall just be moved to the corresponding area, and the initial triage tag shall NOT be removed.

4. Initial staffing of each treatment unit will depend on the number of victims, but as a guideline for a MCI, at least 2 ALS units and 3 BLS Apparatus units should be utilized in the Treatment Area. The Treatment Group Supervisor shall utilize these crew as appropriate, but initial suggested MINIMAL staffing is as follows:
    a. Immediate (Red) Treatment Unit: 1 ALS Unit (Medic or Squad) and 1 BLS Apparatus (Engine or Ladder Company) per 4 patients.
    b. Delayed (Yellow) Treatment Unit: 1 ALS Unit (Medic or Squad) and 1 BLS Apparatus (Engine or Ladder Company) per 10 patients.
    c. Minor (Green) Treatment Unit: 1 BLS Apparatus (Engine or Ladder Company) per 20 patients.

C. Transport

1. The Transportation Group is led by the Transportation Group Supervisor. The radio call sign is “Transportation”. The primary tasks of the Transportation Group are:
    a. Communicate overview of incident and patient needs to Medical Branch Director.
    b. Maintain a status board of receiving hospitals as communicated by Base Station.
    c. Assign patients to transport vehicles.
    d. Assign transport units a hospital destination <u>in coordination with Base Station.</u>
    e. If available, assign personnel and operate the Regional Patient Tracking System scanners as patients enter transport units.
    f. Maintain patient tracking from the scene utilizing the Multiple Casualty Register and/or the regional patient tracking system if available.

2. Patient assignment:
    a. Stretcher patients: Order 1 ambulance for every 2 stretcher patients.
        1) Walking patients: The Multi Patient Vehicle (AMBUS) will accommodate 20 litters or seated patients. An ambulance will transport up to 5 ambulatory patients. A Metro bus can seat up to 40

ambulatory patients. The ratio of EMT or paramedics per bus patients should be at least 1:10.

b. * **NOTE:** If buses are available, minor (green) patients should be loaded and transported from the scene as soon as possible. This should occur regardless of the number of remaining red/yellow patients in the Treatment Area. All patients will be registered in the regional tracking system or the multiple casualty register prior to departure.

3. Staffing for Transportation Group
   a. Transportation Group Supervisor
      1) Decides which patients are loaded into each transport unit.
      2) Assigns each transport unit a destination (in conjunction with Base Station).
      3) Maintains communication with Medical Branch Director and provides updates on patient transportation status.
      4) Assigns the following positions as needed:
         a. Transportation Group Communicator
         b. Hospital Status Board Recorder
         c. Recorders to maintain the multiple casualty register or operate the regional patient tracking system (1 to 4 personnel)

      ***Note: See Attachment 4 for specific roles**

6.05 Staging: Multiple Casualty Incidents may require Level II Staging and a Staging Officer. Units should report to the staging area unless otherwise directed and should not park in a way that blocks entry or exit of any other emergency vehicle.

6.06 Physician Director

A. The Physician Director of EMS authorizes that if there is an immediate life threat to the patients or responders in the Triage Area/Scene (explosion, fire, inhalation risk, etc.), all patients do not need to be fully immobilized before rapid extrication from the scene.

B. The Physician Director of EMS may authorize the following deviations to the HFD Transportation Guidelines for the duration of a Mass Casualty Incident:
   1. Transportation group supervisor may direct patients who meet criteria for trauma center transport to any Level I, II, or III trauma center.
   2. Ambulances transport all patients in an emergency mode (lights and sirens). MPV units are licensed ambulances and may be

directed to use their emergency equipment for transport. Metro and civilian type buses will obey all traffic laws and should not have a lights and sirens police escort.

3. After unloading patients at hospitals, ambulances will immediately return to the MCI staging area in an emergency mode (lights and sirens), unless otherwise advised. Patient records may be completed and delivered to hospitals once released from the MCI.
4. When helicopters transport patients from Mass Casualty Incidents, they should transport patients to hospitals out of the local area. Therefore, the Transportation Group Supervisor should, in conjunction with Base Station, direct helicopters to transport patients to other hospitals including distant trauma centers around the South Texas Area.
5. Ambulances transporting patients from the MCI shall not contact Base Station unless they need additional treatment orders. The Transportation Group Communicator notifies Base Station before each transport unit departs the scene. Base Station then relays this information to the receiving hospital.
6. During a Mass Casualty Incident, the Patient Report on the HFD laptops shall be utilized for all patient records. The Regional Disaster Tag is NOT a sufficient final patient record. If time does not allow personnel to complete all patient records before returning to the scene, personnel will complete all patient records at the termination of the MCI or prior to being relieved of duty.

6.07 Fatality Management: In general, personnel shall leave the deceased where they lie, unless it is necessary to move a deceased body to gain access to a live patient. There will not be a morgue area, unless established by the Medical Examiner. Persons who die in the Treatment Area before transport shall be moved to the black tarp.

6.08 Mutual Aid

A. EMS mutual aid units will be used as necessary. Mutual Aid Units may be dispatched to 9-1-1 calls in areas of the City that have been “stripped” of ambulances for the incident or dispatched to the MCI scene.

B. Mutual aid units dispatched to the MCI event will report to the MCI Level II Staging Area.

C. Mutual aid units will be directed to move to the Transportation Area as needed, load patients, transport the patients to the hospital they are assigned to, unload the patients, and then return directly to the MCI, unless otherwise instructed.

6.09 Mass Casualty Incident Supplies

A. Each BLS Apparatus

1. Mass Casualty Incident Checklist – “First Unit on Scene”
2. Mass Casualty Incident Checklist – “Triage Group Supervisor”
3. Mass Casualty Incident Checklist – “Treatment Group Supervisor”
4. Mass Casualty Incident Checklist – “Transportation Group Supervisor”
5. Triage pouch containing rolls of ribbon in the following colors: red, yellow, black, orange, and blue
6. START and JumpSTART Placards to be used as just-in-time training

B. Each EMS Supervisor Vehicle
   1. Complete set of Mass Casualty Incident Checklists
   2. 100 Regional Disaster Tags
   3. Supply of necessary forms, including Mass Casualty Register
   4. Hospital Status Board
   5. Triage pouch containing rolls of ribbon in the following colors: red, yellow, black, orange, and blue
   6. Three extra Triage pouches with ribbon as above
   7. Mass Casualty Incident Management Vests
      a. Medical
      b. Triage
      c. Treatment
      d. Transportation
      e. Recorder
      f. Communications
      g. Staging
   8. Treatment Unit Identification Equipment
      a. Flags and Tripods – red, yellow, green, and black
      b. Barricade Tape – red, yellow, green, and black
      c. Tarps – red, yellow, green, and black
   9. Clipboards, notepads, ballpoint pens, markers, manila envelopes
   10. WMD Pelican Cases with organophosphate antidote kits
   11. If available, a Regional Patient Tracking Kit
   12. Survey Flags for location identification

C. Each Mobile Medical Command Vehicle (EMS Physician Vehicle)
   1. 100 Regional Disaster Tags
   2. Mass Casualty Incident Management Vests
   3. Triage pouch containing rolls of ribbon in the following colors: red, yellow, black
   4. MCI tracking board
   5. WMD Pelican Cases with 60 DuoDote kits and 30 CANA kits