3.3.2.1 Delivery Model

	YOUR ORGANIZATION STANDARD OPERATING PROCEDURES/GUIDELINES
TITLE: Delivery Model	**SECTION/TOPIC:** Pre-Hospital EMS First Response
NUMBER: 3.3.2.1	**ISSUE DATE:**
	REVISED DATE:
PREPARED BY: X _____ Preparer	**APPROVED BY:** X _____ Approver
These SOPs/SOGs are based on FEMA guidelines FA-197	

1.0 POLICY REFERENCE

CFR	
NFPA	
NIMS	

2.0 PURPOSE

This standard operating procedure/guideline addresses the specific configuration of the first response component: type of vehicle, number of vehicles, staffing of the unit (number and care capability).

3.0 SCOPE

This SOP/SOG pertains to all personnel in this organization.

This procedure establishes a standard structure and guideline for the operation of Fire Department units at multi-patient/mass casualty incidents. The system may be applied to any multi-patient or mass casualty incident regardless of the number of patients or incident size. This procedure shall be integrated into the overall incident management system and may included major transportation incidents, explosions or fire with multiple injuries, hazardous materials incidents with exposure victims and structural collapse incidents.

4.0 DEFINITIONS

These definitions are pertinent to this SOP/SOG.

Multi-patient incident: Any incident with fewer than twenty (25) patients.

Mass casualty incident: Any incident involving 25 to 100 patients.

Disaster: Any incidents involving more than 100 patients.

5.0 PROCEDURES/GUIDELINES & INFORMATION

5.1 The Specific Configuration of the First Response Component:

Procedure

The first-arriving company officer at the scene of a multi-patient or mass casualty incident shall establish Command. The initial Incident Commander (IC) shall remain in Command until Command is transferred or the incident is stabilized and Command is terminated. Command is responsible for the completion of the tactical objectives. The general tactical objectives, listed in order of priority, are:

1. Remove endangered occupants and treat the injured.

2. Stabilize the incident and provide for life safety.

3. Ensure the functions of triage, extrication, treatment and transportation are established as needed and performed appropriately.

4. Provide for the safety, accountability and welfare of rescue personnel and victims.

5. Conserve property.

In addition, the EMS TACTICAL objectives to be completed during any multi-patient/mass casualty incident include:

1. Completion of a "Triage Report"

2. Declaration of "All IMMEDIATES Transported"

The Incident Management System is used to facilitate the completion of the tactical objectives. The IC is the person who drives the Command system towards that end. The IC is responsible for building a command structure that matches the organizational needs of the incident to achieve the tactical priorities.

When possible, patients should be treated and transported in the following priority order:

1.   IMMEDIATE

2.   DELAYED patients upgraded to IMMEDIATE

3.   DELAYED

4.   MINOR

Basic Operational Approach

The initial actions of the first arriving officer shall be directed toward scene size-up, requesting appropriate resources and initial organization of the scene. Initial actions include:

1.   Give an on-scene report and assume command. Initiate triage.

2.   Perform a rapid hazard assessment and establish a safe zone to operate. Initiate traffic control and provide a safe work/treatment area.

3.   Provide for occupant protection (charged hand line).

4.   Call for additional resources.

5.   Radio a Triage Report to Dispatch.

6.   Stabilize hazards and/or remove patients to a treatment area.

7.   Assign crew(s) specific task(s) to accomplish.

8.   Early sectorization (triage, extrication, treatment, and transportation) or by location (north, south, east, west).

9.   Initiate patient assessment and treatment functions.

10.   Coordinate patient transportation.

Responding personnel are encouraged to use triage tags and IMMEDIATE labels on smaller multi-patient incidents. <u>Triage tags should be used any time there are three (3) or more IMMEDIATE patients or more than ten (10) patients.</u> In the multi-patient incident scenario, most often a multiple

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vehicle collision, use of the Central Arizona triage system (See MP 1201.14) can greatly improve initial scene organization, and enhance its use during mass casualty incidents.

Arrival

The first arriving company officer at a multiple patient incident will assume Command and give an on scene report which will answer the question. *. . What do I have? What action will I take? What resources do I need?* The type of situation and the approximate number and condition of patients should be communicated to Dispatch as soon as possible.

Command should rapidly survey the scene to identify any hazards or safety concerns and establish a safe zone for crews to operate. This can be accomplished through proper defensive rig positioning, use of flashing lights and the placement of flares or reflectors. Additional traffic control should be requested from law enforcement through Dispatch.

Command should immediately request additional assistance if the need is indicated. Dispatch will begin to notify other agencies and medical facilities based on the amount of assistance requested at the scene and the progress reports from Command. The initial reports should indicate the scale of the incident to allow Dispatch to notify other agencies.

Triage will be initiated early in an incident, especially when the number of patients and/or the severity of their injuries exceeds the capabilities of the on scene personnel to provide effective extrication, treatment and transportation.

Once triage is complete, a Triage Report should be radioed to Alarm. A Triage Report at a two-vehicle collision may sound like: "*Triage to Command. Triage is complete. We have 9 total patients: 2 IMMEDIATES, 3 DELAYED and 4 MINORS.*" A Triage Report signifies that triage has been completed and communicates to all responding crews the size of the major medical incident. It also provides essential information regarding decisions to call for additional resources or to scale back the response.

The first arriving company officer needs to quickly determine the most effective means to treat patients. In incidents with few patients, it may be more effective to treat patients "in place." At EMS incidents with a greater number of patients, a treatment area should be established. In a case where two or more distinct groups of patients are separated by distance, multiple treatments areas may be needed. Treatment area(s) can be clearly identified by using colored salvage covers (red, yellow and green) to designate treatment areas for IMMEDIATE, DELAYED or MINOR patients.

If the incident involves a building collapse or a hazardous material release, it may be more effective to remove victims to a safe area rather than stabilize hazards. This is also true of motor vehicle collisions involving a train wreck or bus. In these cases, triage will be performed at the entrance to

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the treatment area.

Staging

Additional Resources should be requested using standard assignments and alarms as much as possible (e.g., 2-1 Medical, 1st Alarm Medical, 2nd Alarm Medical, etc.) This will facilitate an incremental approach to the incident, similar to firefighting operations, and provide predictable resources.

The first arriving company will go to the scene, as well as the first paramedic unit, first ladder, first chief officer, and first rescue. All other companies will use Level I staging upon their arrival.

Command should consider implementing Level II Staging early in the incident. All First-Alarm-Medical Incidents (or greater) require a Level II Staging Area for all fire department resources, including rescue companies.

All outside agencies responding to a medical incident should be sent to the Staging Area. This area should be at a sufficient distance to keep the scene clear and maintain access. Staging officer will assign units as directed by Command.

Units assigned to sectors, unless carrying special equipment, should park at a distance from the scene. This parking area should be located out of the access paths. Crews should report to Extrication or Treatment Sectors carrying their medical equipment. If a treatment area is designated, medical equipment and supplies should be stockpiled there.

Apparatus with extrication tools or other heavy equipment needed at the scene should be brought up closer to the actual incident site.

Command Responsibilities

The Incident Commander (IC) is responsible for the strategic level of the command structure and should:

•   Determine the appropriate strategy

•   Establish overall incident objectives

•   Set priorities

•   Develop an action plan, communicate plan.

- Obtain and assign resources.

- Planning—based on evaluating interventions and predicting outcomes

- Communicate specific objective to tactical level units

- Initiate a Unified Command with other agencies

Basic Sectors

Most multiple-patient incidents require patient triage, extrication, treatment, and transportation. Because of potential vehicle congestion at the site, a staging sector for apparatus is also a major consideration during larger incidents.

These needs form natural basic sectors for the Incident Management System. Additional sectors may be assigned depending on the situation, consistent with the Incident Management System.

The purpose of Triage Sector is to determine, in close coordination with Extrication, the location, number and condition of patients and whether triage should be performed before or after patients are extricated from the site. Triage is also responsible to assign and supervise triage teams, ensure that patient triage is done in accordance with standard operating procedures and provide Command with a "Triage Report" when triage is completed. Triage Sector should also forward triage tracking slips to Command.

The purpose of Extrication Sector is to determine, in conjunction with Triage, the location, number and condition of patients and whether triage will be performed before or after patients are extricated from the impact area. Extrication is also responsible to assign and supervise extrication teams, extricate and deliver patients to the treatment area, and notify Command when all patients have been removed from impact area. MINOR patients who were directed earlier in the incident by triage teams to an Assembly Area will be assessed by Extrication and delivered to the treatment area if further medical care is warranted.

The purpose of Treatment Sector is to first determine whether patient treatment will occur "in place" or in a designated treatment area. Generally, a centralized treatment area is preferred, as patient care and site operations are substantially enhanced.

If a treatment area is designated, Treatment Sector may decide to treat patients in a common area. However, if the incident is large enough treatment may designate separate "IMMEDIATE" and "DELAYED" treatment areas. Treatment is responsible to assign and supervise treatment teams, ensure that all patients have been triaged, assessed and treatment needed. Treatment Sector

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officer should coordinate patient allocation with Transportation Sector and notify Command when all patients have been treated.

The purpose of Transportation Sector is to obtain all modes of transportation needed to take patients to the hospital. Transportation should determine, in conjunction with Command, the location of the staging area, rescue loading area and helicopter landing zone. Transportation Sector is also responsible to determine hospital availability through the Dispatch Center, coordinate patient allocation with Treatment and supervise the movement of patients from the treatment area to the ambulance loading area or helicopter landing zone.

Transportation Sector should also determine hospital destination and notify hospitals of rescue or ambulance arrival (through Dispatch). Transportation should also remove patient tracking slips from the triage tag prior to transport, notify Command when all Immediate patients have been transported (an EMS Tactical benchmark) and maintain an accounting of all patients.

ADDITIONAL SECTORS

Safety Sector

Command should assign Safety Sector as soon as the basic sectors have been established.

As the incident escalates, a Staging Sector may be required. To avoid scene congestion, a Level II staging area will be identified for any First Alarm Medical incident.

Medical Supply Sector is responsible for the procurement, delivery and stockpiling of medical supplies needed at the scene. This sector should be established on 3rd Alarm Medical or greater incidents, as Medical Support 19 (from the airport) and a Medical Supply truck (from Resource Management) will automatically be dispatched. These units will have medical supplies, oxygen refill capability and oxygen distribution system.

If helicopters are used, an LZ Sector will be established with a landing zone a safe distance from the scene. LZ Sector will keep track of patient destination, communicate landing instructions with incoming and outgoing aircraft and enforce established safety standards for landing zones (Brush Fire Air Support). At least one Engine Company will be assigned to the LZ.

Branches

A mass casualty incident may require the implementation of a separate "Medical Branch" and "Transportation Branch." Each would direct all sectors assigned and report to Command.

The Medical Branch Director is responsible to ensure that the functions of triage, extrication, and treatment are carried out. The Medical Branch Director should supervise and coordinate personnel assigned, determine and request resources needed and recommend the expansion of the command organization as needed. Medical Branch should communicate direction and objectives to tactical units, ensure objectives are completed and maintain incident documentation.

Additional positions within the Medical Branch may include an IMMEDIATE, DELAYED and MINOR Treatment Sector Officers, Medical Communications Sector, Medical Supply Sector, Ground Ambulance Coordinator and Morgue Officer.

Resource Commitment and Flow

Resource commitment typically follows patients. Initially, Extrication will required a large resource commitment. As patients are extricated and moved to Treatment, resources for extrication will decrease. These crews can be re-allocated to the Treatment function.

In a disaster level incident, some fire department resources may need to be allocated to receiving hospitals until those facilities can obtain adequate hospital staff.
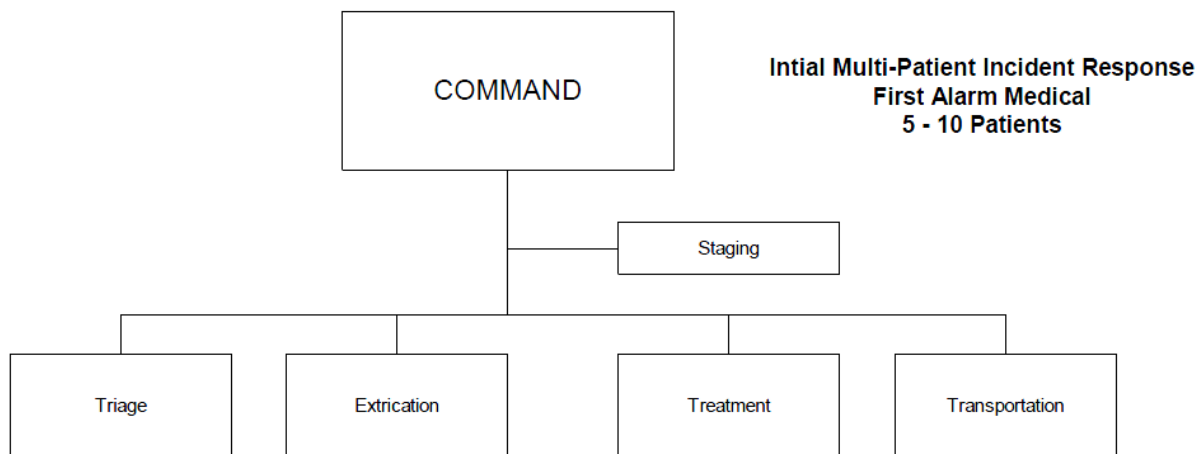
NOTES:

1.   The triage function should be performed by the first arriving company. Normally, it will last 4-6   minutes. A sector assignment may not be necessary.

2.   Extrication may be assigned, if needed, when physical disentanglement or patient removal to a   treatment area is needed.

3.   Treatment is preferred in a designated treatment area, or can be performed "in-place," as directed by Command.

4.   The Transportation Sector function may be managed by Command or assigned to a designated   member, depending on complexity of the incident.

5.   A Level II Staging area should be used for the balance of the assignment (after the Level 1 approach). All resources must stage.

Reinforced Multi-Patient Response
Second Alarm Medical
10-25 Patients
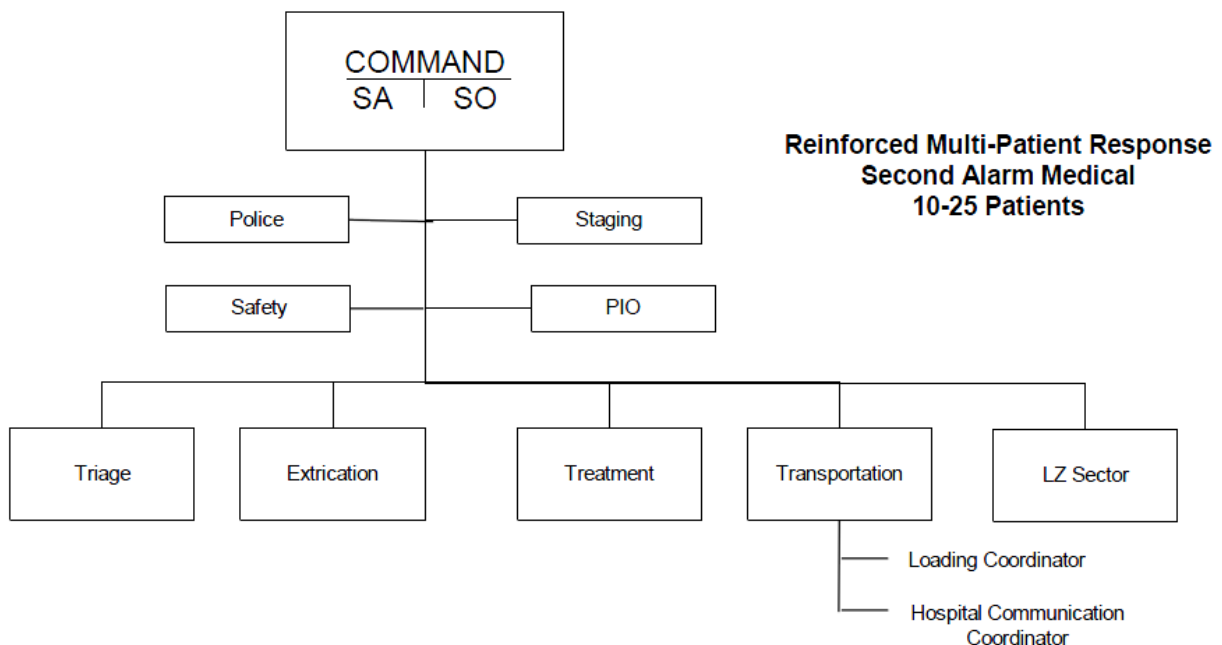
NOTES:

1.   A Triage Sector should be assigned.

2.   The Extrication Sector should be assigned to manage physical disentanglement or removal of patients from the impact site to a treatment area.

3.   A Treatment Sector should be established with colored salvage covers used to identify Immediate, Delayed, and Minor treatment areas.

1.   Transportation Sector will need a minimum of one company assigned to perform its functions, and be assigned a separate tactical channel, in addition to Med-9.

2.   A LZ Sector will be used for helicopter operations.

3.   A minimum of one engine company should be assigned to the LZ, with the Company Officer becoming "LZ Sector."

4.   The Hospital Communications Coordinator should check on hospital availability through Dispatch on Med-9.

5.   A Level II Staging area must be established for all resonding companies.

6.   Rescues should be sent to loading area, no more than two at a time.
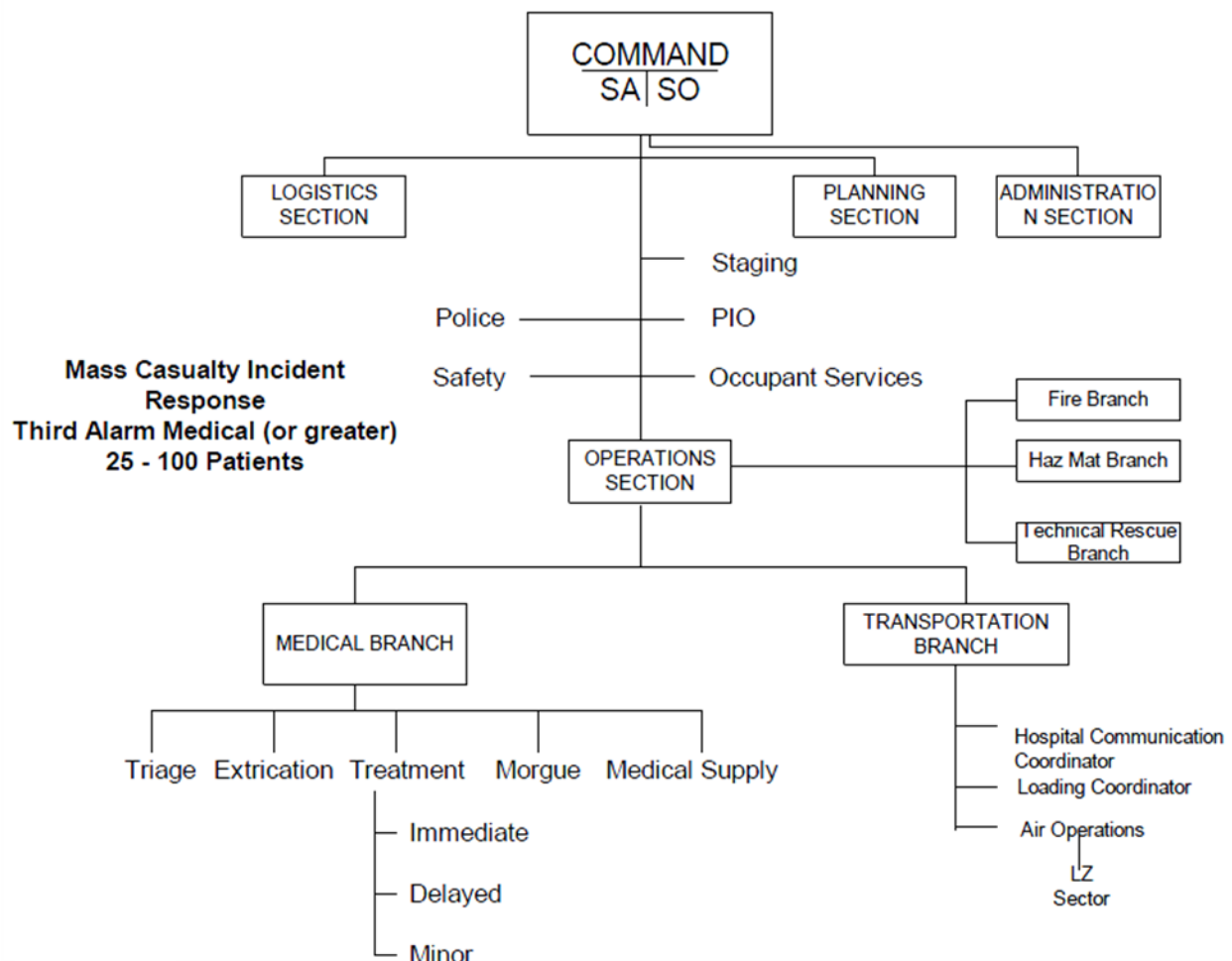
NOTES:

1.   Triage should continue as a Sector and may involve several companies.

2.   The treatment area must be identified early and include patient re-evaluation.

3.   Medical Branch and Transportation Branch should be considered with a large number of patients.

4.   Transportation Branch has a Loading Coordinator assigned to the treatment area.

5.   Transportation Branch will need a minimum of one company assigned and should operate on a separate tactical radio channel, in addition to Med-9.

6.   A minimum of one engine should be assigned to the LZ, with the Company Officer assigned as "LZ Sector."

7.   The Hospital Communication Coordinator should check and re-check hospital availability through Dispatch on Med-9.

8.   Rescues should be sent to the loading area, no more than two at a time.

9.   Medical Support 19 and one medical supply truck will be dispatched to the scene when a Third Alarm is requested (see Medical Supply Sector).

5.2 Type of Vehicle:

5.3 Number of Vehicles:

5.4 Staffing of the Unit (number and care capability):