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Standard Guide for Planning for and Response to a Multiple Casualty Incident[1]

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1. Scope

1.1 This guide covers the planning, needs assessment, training, integration, coordination, mutual aid, implementation, provision of resources, and evaluation of the response of a local emergency medical service (EMS) organization or agency to a multiple patient producing situation that may or may not involve property loss. This guide is limited to the pre-hospital response and mitigation of an incident up to and including the disposition of patients from the incident scene.

1.2 This guide addresses the background on planning, scope, structure, application, federal, state, local, voluntary, and nongovernmental resources and planning efforts involved in developing, implementing, and evaluating an EMS annex, or component, to the local jurisdiction's emergency operations plan (EOP) as defined in the Federal Emergency Management Agency (FEMA) publication, Civil Preparedness Guide (CPG) 1–8.[2]

1.3 *This standard does not purport to address the safety concerns associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 *ASTM Standards:*[3]

F1149 Practice for Qualifications, Responsibilities, and Authority of Individuals and Institutions Providing Medical Direction of Emergency Medical Services

3. Terminology

3.1 *Definitions of Terms Specific to This Standard:*

3.1.1 *command post*—the physical location from which incident command exercises direction over the entire incident.

3.1.2 *disaster*—a sudden calamity, with or without casualties, so defined by local, county, or state guidelines.

3.1.2.1 *medical disaster*—a type of significant medical incident which exceeds, or overwhelms, or both, the capability of local resources and of routinely available regional or multi-jurisdictional medical mutual aid, and for which extraordinary medical aid from state or federal resources is very likely required for further diagnosis and treatment.

3.1.3 *EMS control/medical group supervision*—the first emergency medical services response at the incident scene, or designated by the local response plan or incident command to be responsible for the overall management of the incident's EMS operation.

3.1.4 *extrication management*—the function of supervising personnel who remove entrapped victims.

3.1.5 *fatality management*—the function designated by existing plans, or the EMS control/medical group supervisor, to organize, coordinate, manage, and direct morgue services.

3.1.6 *incident commander*—the individual responsible for the overall on-site management and coordination of personnel and resources involved in the incident.

3.1.7 *logistics resources management*—the function responsible for acquiring personnel, equipment (including vehicles), facilities, supplies, and services as requested by the incident commander.

3.1.8 *medical communications management*—the function designated by the incident commander or EMS control/ medical group supervisor to establish, maintain, and coordinate effective communication between on-site and off-site medical personnel and facilities.

3.1.9 *medical supplies management*—the function designated by the incident commander to manage equipment and report to EMS control/medical group supervisor.

3.1.10 *mental health coordinator*—a qualified mental health professional responsible for coordinating the psychosocial assessments and interventions for responders, affected individuals, and groups.

3.1.11 *multiple casualty incident (MCI)*—a type of significant medical incident that may fall into the following categories:

3.1.11.1 *extended*—an incident for which local medical resources are available and adequate to provide for field

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[2] Available from FEMA, 500 C St., SW, Washington, DC 20472.

[3] For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

medical triage and stabilization, and for which appropriate local facilities are available and adequate for further diagnosis and treatment.

3.1.11.2 *major*—an incident producing large numbers of casualties, for which routinely available regional or multi-jurisdictional medical mutual aid is necessary and adequate for further diagnosis and treatment.

3.1.12 *mutual aid*—the coordination of resources, including but not limited to facilities, personnel, vehicles, equipment, and services, pursuant to an agreement between jurisdictions providing for such interchange on a reciprocal basis in responding to a disaster or emergency.

3.1.13 *needs assessment*—a preliminary survey of real or potential hazards in a specific geographic area.

3.1.14 *operations officer*—individual who assists the incident commander on issues relating to the operations of the incident.

3.1.15 *public information*—a function designated by the incident commander for the dissemination of factual and timely reports to the news media.

3.1.16 *safety management*—the function that identifies real or potential hazards, unsafe environment or procedures at the incident scene, and recommends the appropriate corrective or preventive actions under the authority of the incident commander, to ensure the safety of all personnel at the incident scene.

3.1.17 *sector officers (group supervisors/leaders/managers)*—qualified personnel who control a specific area or task assignment.

3.1.18 *staging area*—the location where responding emergency services equipment and personnel assemble for assignment.

3.1.19 *staging management*—the function designated by the incident commander that is responsible for the orderly assembly and utilization of resources in a designated area.

3.1.20 *transportation management*—the function designated by the EMS control/medical group supervisor that is responsible for the transportation of the patients from the incident scene and for coordination with EMS control/ medical group supervisor, communications, and the incident commander.

3.1.21 *treatment area*—the site at or near the incident for emergency medical treatment prior to transport.

3.1.22 *treatment management*—the function that is responsible for the definitive on-scene medical treatment of patients.

3.1.23 *triage*—the process of sorting and prioritizing emergency medical care of the sick and injured on the basis of urgency and type of condition present, and the number of patients and resources available in order to properly treat and transport them to medical facilities appropriately situated and equipped for their care.

3.1.24 *triage area*—a location near the incident site to which injured persons should be brought, triaged, and taken directly to the treatment area.

3.1.25 *triage management*—the function that is responsible for triage and preliminary treatment of casualties.

4. Summary of Guide

4.1 This guide is based upon a body of knowledge on the planning, implementation, and evaluation of the emergency medical components of the local pre-hospital response to multiple casualty incidents.

4.2 The body of knowledge on which the guide is based was drawn from a wide variety of sources, including individual authors, academic institutions, and federal, state, regional, and local organizations.

4.3 This guide is organized in such a way as to provide those responsible for planning, implementing, and evaluating the emergency medical components of the local pre-hospital response to multiple casualty incidents with information they can readily use to ensure that their response is as expedient and appropriate as is reasonably possible.

4.4 The guide was created to organize, collate, and distribute related information in such a way as to be readily accessible to people in the fields of emergency medical services and emergency management.

4.5 This guide should not be perceived as an inflexible rule or standard but as a guide that should be adapted to the needs of the individual community, and should be refined and improved as the body of knowledge on which it is based increases.

5. Significance and Use

5.1 This guide is intended to assist the management of the local EMS agencies or organizations in the design, planning, and response of their jurisdiction's resources to multiple casualty incidents (MCIs).

5.2 This guide does not address all of the necessary planning and response of pre-hospital care agencies to an incident that involves the total destruction of community services and systems.

5.3 This guide does not address the necessary design, planning, and response to be undertaken by a medical care facility to an internal or external event that necessitates the activation of the facility's disaster plan.

5.4 This guide provides procedures to coordinate and provide a systematic and standardized response by responsible parties, including the local elected officials, emergency management officials, public safety officials, medical care officials (pre-hospital and hospital), local EMS agencies/organizations and others with objectives and tasks for the pre-hospital management of a significant incident.

5.5 This guide provides for the establishment of an incident command system with position descriptions that identify mission, functions, and responsibilities of the command structure to be used at a MCI. The incident command functions include but are not limited to staging, logistics, rescue/extrication, triage, treatment, transportation (air, land, and water), communications, and fatality management.

5.6 This guide provides examples and other management tools that can assist in providing training objectives and decision making models for dispatch, response, triage, treatment, and transportation for local jurisdictions experiencing multiple casualty incidents.

PLANNING

6. Planning

6.1 *Purpose*—Planning should be a cooperative effort between local EMS providers and the jurisdiction in which they deliver services. The plan should be written to establish the emergency organization, basic policies, responsibilities, and actions required for support of local operations of emergency medical/health plans. Plans should ensure rapid medical assistance to persons requiring aid due to an incident. Plans should describe a system for coordination of alerting, dispatching, and uses of medical personnel and resources whenever a local emergency medical health agency requires assistance from another EMS agency/jurisdiction. The plan should be designed to be an extension of day to day service, facilities, and resources.

6.2 *Goal*—The plan ensures adequate and coordinated efforts that will minimize loss of life, disabling injuries, and human suffering by providing effective medical assistance through efficient use of medical and other resources in the event of emergencies resulting in multiple casualty incidents.

6.3 *Objectives*—The primary objectives of a plan should include a process whereby:

6.3.1 Each EMS agency/jurisdiction should have a plan to meet its own needs within its capabilities.

6.3.2 Each EMS agency/jurisdiction should enter into mutual aid agreements with other local or regional jurisdictions which can be invoked when local capability to manage a situation has been exceeded. Each jurisdictional plan should facilitate the access and utilization of local and state resources.

6.3.3 The EMS agency/jurisdiction's plan should conform to appropriate regional and state plans.

6.3.4 Each EMS agency/jurisdiction should define training requirements, and develop and utilize a training program based on the needs assessment of the community.

6.3.5 The plan should be a coordinated interagency effort. Responsible agencies should have regular interaction in order to facilitate working relations during an incident.

6.3.6 Plans and procedures should be reviewed and revised regularly on the basis of tabletop exercises, simulated incidents, or actual events.

6.4 *Needs Assessment and Hazards Analysis:*

6.4.1 A needs assessment is a preliminary survey of real or potential hazards in a specific geographic area. Basic to the planning process is an understanding of the problems that should be anticipated in the specific area.

6.4.1.1 A needs assessment lets the EMS agency/jurisdiction know what to expect.

6.4.1.2 It prevents planning for unnecessary events.

6.4.1.3 It provides an incentive for the EMS agency/jurisdiction's plan.

6.4.1.4 It might indicate preventive measures.

6.4.1.5 It creates an awareness of new hazards.

6.4.2 When the needs assessment is complete, the jurisdiction should be able to make the following decisions:

6.4.2.1 The type of planning desired,

6.4.2.2 What types of response to emphasize,

6.4.2.3 What resources will be needed to fulfill that response, and

6.4.2.4 The type and quantity of mutual aid and support services that might be required outside the normal jurisdictional services.

6.4.3 *Components*—There are three basic parts to a needs assessment:

6.4.3.1 Consideration of the potential for specific incidents,

6.4.3.2 Evaluation of the potential harm resulting from the incident, and

6.4.3.3 Evaluation of the resources required to respond to the incident.

6.4.4 *Approach*—The following are suggested approaches to completing a needs assessment:

6.4.4.1 Form a team to identify the potential hazards, risks, and impact relating to potential MCIs.

6.4.4.2 Consult the local or state civil defense/emergency preparedness offices for assessment information.

6.4.4.3 After identifying potential MCIs, evaluate them for their potential hazards, risks, and impact.

6.4.4.4 Evaluate the area's resources.

6.4.5 *Resources Assessment*—Consider the personnel required for performing such tasks as emergency medical services, firefighting, and rescue. Inventory equipment for the job and evaluate its ability to perform the task. Prepare a written description of what potential incidents exist, and the ability to respond to these incidents.

6.4.6 Once complete, the needs assessment becomes part of the plan.

6.5 *Plan Components*—The plan should include provision for the following:

6.5.1 *Organizational Structure for Response:*

6.5.1.1 The plan should define an overall incident organization based on a strategy of efficient and effective utilization of resources.

6.5.1.2 The plan should address chain of command, including transfer of authority of any officer or position.

6.5.2 *Organization of Manpower and Resources for Response:*

6.5.2.1 The plan should provide for delineation of responsibilities and authority for all involved response personnel and agencies.

6.5.2.2 The plan should address necessary resources for each level of event and prepare for availability and updating of those resources.

6.5.3 *Response:*

6.5.3.1 The plan should provide for appropriate response to MCIs.

6.5.3.2 The plan should provide for organization and implementation of the following during MCIs:

(*a*) Incident command system,

(*b*) Patient triage, treatment, and transportation areas,