

EMS SYSTEM STANDARDS AND GUIDELINES



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EMS SYSTEM GUIDELINES

I. INTRODUCTION

Legislative Authorization

The California EMS System Standards and Guidelines were prepared pursuant to Section 1797.103 of the California Health and Safety Code (H&SC). Its purpose is to guide local EMS agencies in the planning, organization, management, and evaluation of local EMS systems. It also provides a mechanism for evaluation of local EMS systems by the California EMS Authority, elected officials, and other interested parties.

These standards are primarily based on California laws and regulations. Some standards are based on generally accepted management, public health, EMS medical practices. Standards are intended to address the EMS **system**, and not just the activities of the local EMS **agency**. Many standards do identify specific local EMS agency activities, while others are based on system resources or activities which are likely to be provided by other EMS system participants.

Development of the Standards

The original version of the EMS System Standards and Guidelines were issued in 1985. As originally planned, they were to be followed by implementation guidelines to further assist local EMS agencies in system development. In 1984, the EMS Authority also issued guidelines for the development of local EMS plans, as required by Section 1797.250, H&SC.

In 1990, it was apparent that EMS in California had surpassed the standards which had been established. In the intervening years, the State had adopted regulations for trauma standards, EMS dispatching and prehospital defibrillation programs had emerged, and the state of the art in EMS had generally advanced. What had been considered goals in the first version were now seen as minimally acceptable standards for EMS systems. Therefore, the EMS Authority undertook an effort to revise the system standards, develop the implementation guide, and revise the planning process.

The EMS Authority contracted with Northern California EMS, Inc. to serve as lead agency for the project. An advisory committee was developed, with representatives of various EMS interest groups. Although these are not regulations, the EMS Authority sought to use a similarly open process in their development, including public review of drafts, presentations to interested parties, and review by the California Commission on EMS.

Purpose/Usage

The purposes of the EMS System Standards and Guidelines are to:

1. Guide EMS system development by identifying both minimum standards and desirable goals for local EMS agencies;
2. Provide standards for evaluating local EMS plans and local EMS systems;
3. Educate EMS agency staff, system participants, elected officials, and policy makers about EMS systems in California; and generally,
4. Provide justification for maintenance of current service level and proposed program change or improvement.

Overview

This volume is Part I of the EMS System Standards and Guidelines. It describes the basic functions of the EMS system and system participants. It establishes minimum standards for EMS systems and recommended goals. Finally, it identifies the system's clinical targets.

Minimum standards are considered to be both appropriate for and attainable by all local EMS systems in California. They are identified in the text as standards which "shall" be met. **Recommended guidelines** are based on system optimality and have been identified as standards to which each system should strive, but they may not be attainable by all local EMS systems. They are identified as standards which "should" be met.

The standards are divided into "**universal**" standards which are intended to apply to all EMS systems and "**enhanced**" standards which apply **only** to those levels of service which go beyond the level which should be available in all systems. They apply to specific enhancements, such as advanced life support services, a trauma care system, a pediatric emergency medical and critical care system, and the granting of exclusive operating areas.

Part II of the EMS System Standards and Guidelines is the EMS System Implementation Resource. It includes various items which are intended to assist local EMS agencies in their system planning and implementation activities. These include directories to EMS Authority policy documents, examples of products developed by local EMS agencies and other system participants, and other educational materials.

The EMS System Planning Guidelines, Part III, are intended to help link the standards established in Part I with local EMS agencies' planning and implementation activities. As revised, plans to be submitted to the EMS Authority will focus on the degree to which local systems meet the standards and plan activities to bring the system into full compliance with the standards.

II. EMS SYSTEM OVERVIEW

Systems Approach to EMS

The Federal EMS Act defined an EMS system as "a system which provides for the arrangement of personnel, facilities, and equipment for the effective and coordinated delivery in an appropriate geographic area of health care services under emergency conditions (occurring either as a result of the patient's condition or of natural disasters or similar conditions) and which is administered by a public or nonprofit private entity which has the authority and the resources to provide effective administration of the system" (Section 1201(1), U.S. Public Health Service Act). The target populations for the EMS system include patients suffering from behavioral emergencies, burns, cardiac emergencies, neonatal emergencies, poisonings, spinal cord injuries and trauma.

The delivery of emergency health care requires the participation of numerous independent individuals and organizations, including public safety agencies, ambulance services, physicians, and hospitals. Despite their autonomy, these organizations have high degrees of functional interdependence as they work to provide care, sometimes simultaneously, to individual patients. Managing interdependence requires planning, standardization, and mutual adjustment.

A community has five possible approaches to managing the interdependence of its EMS responders. The first, ignoring it, results in conflicts among providers, inefficiencies, and, in the end, a lower level of care to the patient. The second response involves the creation of voluntary networks (e.g., EMS councils) to attempt coordination of system participants. This approach depends on the willingness of participants to cooperate.

A third approach, started under the Federal EMS program, creates an independent agency to develop a system plan and to attempt to convince providers to participate in the plan. Under the fourth approach, this planning agency is granted regulatory powers (such as the franchising of ambulance services and formal designation of specialty hospitals) to assign roles and responsibilities to system participants in order to enforce implementation of the plan. A fifth approach--placing the entire EMS system under a single agency--is not fully used even in systems (e.g., New York, San Francisco) where the government owns or manages most of the system's resources.

Under the third and fourth approaches, the job of the lead agency (regardless of its specific regulatory powers) is to plan for the entire EMS system in order to provide the optimal response to the emergency patient. In doing so, it must consider all patient needs and all resources required to meet these needs. In many ways, the lead agency acts like the management of a large organization coordinating the activities of its divisions.

System Models

Several models exist to define emergency medical services systems. These generally examine either the structure of the system (such as components or system participants) or the system's process (such as stages of the system).

System Components

Most EMS system models focus on functional components. The federal EMS Act identified fifteen components which grantees were required to address. Other developers of EMS system standards also adopted this approach, using various listings of system components. The federal components were:

1. Manpower
2. Training
3. Communications
4. Transportation
5. Facilities
6. Critical care units
7. Public safety agencies
8. Consumer participation
9. Access to care
10. Patient transfer
11. Coordinated patient recordkeeping
12. Public information and education
13. Review and evaluation
14. Disaster linkage
15. Mutual aid.

California's EMS Systems Act used a similar model to identify foci for system development. It required that planning guidelines address:

1. Manpower and training
2. Communications
3. Transportation
4. Assessment of hospitals and critical care centers
5. System organization and management
6. Data collection and evaluation
7. Public information and education
8. Disaster response.

Like the system stages model (below), the components do not identify the individuals or the organizations which are involved. While a system design can address the components generically, an effective plan requires that the roles and responsibilities of specific participating organizations be addressed.

System Stages

In tracing an individual patient through the EMS system, five stages can be seen:

- C Pre-response: Initial access to the system and first aid and cardiopulmonary resuscitation performed by members of the public prior to the arrival of any official responder.
- C Prehospital: Fire, law enforcement and other public safety "first responder" agencies and basic and advanced life support ambulances.
- C Hospital: Emergency department and secondary-level in-patient hospital care.
- C Critical Care: Intensive and cardiac care as provided in most community level hospitals and tertiary-level care for the treatment of the most severe patients within each of the clinical target groups.
- C Rehabilitation: Services necessary to return the victim of an emergency illness or accident to a productive place in society.

Not all of the participants in these stages are involved with patients during the emergent phase of their illnesses and they may not be under the regulatory control of EMS organizations. Yet, the relationships among providers, and policies and procedures to ensure dispatch of appropriate responders and to get the right patient to the right facility at the right time, make them all a part of the system for planning and coordination purposes.

Clinical Targets and Special Care Considerations

In addition to the operational components of the EMS system, several clinical targets are also identified. By combining the components with the target groups--examining each of the components as they relate to each of the target groups--a system model can be seen which considers both perspectives. Because the clinical groups are not isolated, much overlap exists, particularly in the "staff" or support components (e.g., communications). In actuality, only the staffing/training and hospitals/critical care units have substantial differences between clinical groups.

General Emergency Medical Care

A key component of an emergency medical care system is the hospital emergency department (ED). The ED serves as:

- C a facility that provides both definitive treatment and stabilizing measures, for ill or injured patients; and
- C (when designated as a base hospital), the source of medical direction for prehospital triage,

- C treatment and patient routing.

The local EMS agency, in collaboration with other appropriate organizations, should assess hospitals and emergency departments for the capability and availability of emergency medical care services. The assessment should:

- C identify and confirm the availability of EMS-related treatment facilities;
- C provide a baseline for emergency medical care needs assessment and planning;
- C improve patient care and reduce health care costs by selectively routing patients to the most appropriate facilities; and
- C optimize the use of prehospital resources through planned utilization.

EMS-Targeted Clinical Conditions

Acute Cardiopulmonary Emergencies--The EMS system should:

- C promote public education on the recognition and initial management (e.g., EMS system access and CPR) of these conditions;
- C identify patients having, or at risk of having, a serious cardiopulmonary condition;
- C provide basic life support, including early defibrillation in the prehospital setting;
- C reduce the time between onset of the condition and receipt of definitive care through prehospital advanced life support;
- C provide primary transport to the most appropriate emergency department; and
- C provide secondary transport to special care facilities.

Multisystem Trauma--The EMS system should:

- C promote public education regarding injury control;
- C identify patients having, or at risk of having, a traumatic condition;
- C identify a facility or facilities (e.g., trauma center) which is best able to provide efficient and effective trauma care;
- C reduce time between the trauma incident and definitive care through prehospital triage and primary transport that facilitate transportation of patients to the most appropriate facilities; and

C provide secondary transport to special care facilities (trauma or other clinical specialty).

Burns--The EMS system should:

C promote public education regarding burn care and burn prevention;

C provide basic and/or advanced life support in the prehospital setting;

C provide primary transport to the most appropriate emergency department; and

C provide secondary transport to burn or other special care centers.

Craniospinal Injuries--The EMS system should, as part of an organized trauma care system:

C promote public education regarding injury control;

C identify patients having, or at risk of having, craniospinal injuries, and identify possible concurrent emergency conditions;

C provide training for EMS personnel in the proper management of spinal cord injuries;

C provide basic and/or advanced life support in the prehospital setting;

C provide primary transport to the most appropriate emergency medical facility; and

C provide secondary transport to spinal cord injury, rehabilitation and other special care facilities.

Poisonings--The EMS system should:

C promote public education regarding the prevention of poisonings;

C identify patients having, or at risk of having, a toxicologic emergency, and recognize potential public health hazards;

C disseminate information to the public, health care providers, and public safety agencies about access to and use of State approved poison control centers;

C provide instruction to EMS personnel and emergency medical care facilities regarding appropriate poisoning treatment protocols;

C provide basic and/or advanced life support in the prehospital setting;

C provide primary transport to the most appropriate emergency department; and

C provide secondary transport to special care facilities.

Neonatal and Pediatric Emergencies--The EMS system should:

- C promote public education regarding neonatal and pediatric emergencies, including appropriate entry to the system;
- C provide training for EMS personnel in the special aspects of neonatal and pediatric emergency medical and critical care;
- C provide basic and/or advanced life support in the prehospital setting;
- C set standards for emergency department pediatric capabilities and identify facilities meeting these standards;
- C provide primary transport to the most appropriate emergency department; and
- C provide secondary transport to special care facilities.

Acute Psychiatric and Behavioral Emergencies--The EMS system should:

- C identify patients having, or at risk of having, a serious psychiatric or behavioral condition;
- C provide public education programs about drunk driving and similar public safety issues;
- C provide training for EMS personnel in management of intoxicated, drug impaired, violent, and psychologically disturbed patients;
- C provide basic and/or advanced life support in the prehospital setting;
- C provide primary transport to the most appropriate emergency care facility;
- C provide for initial medical evaluation and referral to special care facilities of psychologically disturbed patients; and
- C provide secondary transport to special care facilities.

Service Areas

The National Academy of Sciences defined regionalization in EMS as "the process of identifying and developing resources on an area-wide basis to meet the needs of all the acutely ill and injured for prompt, efficient, and effective medical care" which is "achieved by areawide organization, coordination, and integration" of system components [Emergency Medical Services at Midpassage (Washington, DC: National Academy of Sciences, 1978), p. 46]. The American Society for Testing and Material's Committee on EMS defined a region as "the geographic or demographic area that is a natural catchment area for EMS provision for most, if not all, patients in the

designated area" ["Standard Guide for Structures and Responsibilities of Emergency Medical Services System Organizations (Standard F 1086-87)" (Philadelphia: ASTM, 1988) Section 3.2.1].

A regional EMS system then is a natural system, based on day-to-day response patterns and hospital catchment areas. Where possible, the boundaries of the responsible EMS council or lead agency should match the natural system. Within that area, providers should be coordinated to ensure that the closest appropriate responders are sent to a medical emergency, regardless of geopolitical boundaries, and to ensure that patients are taken to the closest appropriate facility for their condition. The system must include suburban and rural areas along with metropolitan areas in order to ensure availability of tertiary services. In remote areas, access to specialized services must be ensured through transfer agreements.

EMS System Organization

Legal requirements for emergency medical care, communication, transportation, assessment of facilities, disaster response, and other EMS services are addressed in five California Codes and several titles of the California Code of Regulations. In addition to each local jurisdiction and various private, professional, and voluntary associations, numerous State and Federal agencies have defined EMS roles or responsibilities. Integration of these entities into a statewide EMS system requires centralized planning, coordination, and administration. The key roles and responsibilities of major EMS organizations are:

1) The California Emergency Medical Services Authority

The California Emergency Medical Services Authority provides leadership in the statewide development and implementation of EMS systems and is responsible for coordinating and integrating emergency and disaster medical care throughout the State. The EMS Authority is responsible for:

1. Development of minimum training and certification standards for prehospital emergency medical care personnel in addition to development of first aid and CPR training and examination standards for firefighters, lifeguards, peace officers, and school bus drivers.
2. Review and approval of expanded scopes of practice for Emergency Medical Technicians-Paramedic (EMT-P).
3. Administration of the testing program for certification and recertification of EMT-Ps and administration of the EMT-P registry.
4. Publication of standards and guidelines for the development of emergency medical service systems throughout the state.
5. Review and approval of local EMS plans and trauma care system plans which must comply with the minimum standards set by the EMS Authority.

6. Assessment of EMS systems in order to coordinate EMS activity based on community needs and the effective and efficient delivery of emergency services.
7. Coordination of medical and hospital disaster preparedness with local, state, and federal agencies.
8. Establishment of minimum standards for medical control and accountability of emergency medical services systems.
9. Provision of technical assistance to local and state agencies developing or implementing components of an EMS system and provision of funding, when available, to EMS agencies.
10. Development of statewide trauma systems regulations.
11. Review of county Emergency Medical Care Committee (EMCC) reports and recommendations.
12. Development and oversight of the statewide poison control system.

2) Local EMS Agency

The local EMS agency serves as the lead agency for the emergency medical services system at the local level and is responsible for coordinating all system participants in its jurisdiction. In California, counties have been given the primary responsibility for assuring that EMS systems are developed and implemented and for designating a local EMS agency. The intent is that counties will be the smallest unit for planning and implementation of EMS systems.

The local EMS agency is responsible for planning, implementing, monitoring, and evaluating the local EMS system. This includes establishing policies addressing the financial aspects of system operation, and making provisions for collection, analysis, and dissemination of EMS-related data. The local EMS agency is also responsible for:

1. Establishing policies and procedures for EMS system operations (using State minimum standards).
2. Developing and submitting a plan to the State EMS Authority for its emergency medical services system and, if desired, its trauma care system.
3. Designating and/or contracting with EMS base hospitals and specialty care centers.
4. Developing guidelines, standards and protocols for the triage, prehospital treatment and transfer of emergency patients.
5. If desired, authorizing and implementing a prehospital advanced life support program.

6. Certifying and accrediting prehospital medical care personnel and approving EMS personnel training programs.

3) Multi-County Local EMS Agencies

Division 2.5 of the Health and Safety Code permits the development of multi-county EMS systems. This may be done through a joint powers agreement or a contract which specifies the responsibilities to be conducted regionally and those to be retained at the county level.

Potential benefits from multi-county EMS agencies include coordination and standardization of emergency response, medical control, data evaluation, and patient flow across a large geographic area, reduced administrative costs, and focusing of efforts on mutual EMS concerns.

Regionalization in rural areas is more likely to provide for the inclusion of a large enough geographic area and population base that definitive care facilities will be contained within the region.

4) County Emergency Medical Care Committee (EMCC)

Emergency Medical Care Committees are responsible for reviewing emergency medical care in each county. At least annually, this committee must review emergency medical transport and treatment services, including first aid and CPR training programs, available to the public. The committee reports its observations and recommendations to the EMS Authority and to the county board(s) of supervisors which it serves. The EMCC advises both the county board(s) of supervisors and the local EMS agency.

III. MINIMUM STANDARDS/RECOMMENDED GUIDELINES

A. System Organization and Management

ALTHOUGH THEY ARE USUALLY INDEPENDENT ORGANIZATIONS, PROVIDERS WITHIN THE LOCAL EMS SYSTEM HAVE HIGH DEGREES OF INTERDEPENDENCE. THE EMERGENCY MEDICAL SERVICES SYSTEM SHOULD BE COORDINATED IN ORDER TO ENSURE CLOSE COOPERATION, TO LIMIT CONFLICT, AND TO ENSURE THAT THE INTERESTS OF THE PATIENTS ARE PRIMARY IN THE SYSTEM.

Minimum Standards

Recommended Guidelines

Universal Level

Agency Administration

- 1.01 Each local EMS agency shall have a formal organizational structure which includes both agency staff and non-agency resources and which includes appropriate technical and clinical expertise.
- 1.02 Each local EMS agency shall plan, implement, and evaluate the EMS system. The agency shall use its quality assurance/quality improvement and evaluation processes to identify needed system changes.
- 1.03 Each local EMS agency shall have a mechanism (including the emergency medical care committee(s) and other sources) to seek and obtain appropriate consumer and health care provider input regarding the development of plans, policies, and procedures, as described throughout this document.

- 1.04 Each local EMS agency shall appoint a medical director who is a licensed physician who has substantial experience in the practice of emergency medicine.
- The local EMS agency medical director should have administrative experience in emergency medical services systems.
- Each local EMS agency medical director should establish clinical specialty advisory groups composed of physicians with appropriate specialties and non-physician providers (including nurses and prehospital providers), and/or should appoint medical consultants with expertise in trauma care, pediatrics, and other areas, as needed.

Planning Activities

- 1.05 Each local EMS agency shall develop an EMS System Plan, based on community need and utilization of appropriate resources, and shall submit it to the EMS Authority. The plan shall:
- a) assess how the current system meets these guidelines,
 - b) identify system needs for patients within each of the targeted clinical categories (as identified in Section II), and
 - c) provide a methodology and timeline for meeting these needs.
- 1.06 Each local EMS agency shall develop an annual update to its EMS System Plan and shall submit it to the EMS Authority. The update shall identify progress made in plan implementation and changes to the planned system design.
- 1.07 The local EMS agency shall plan for trauma care and shall determine the optimal system design for trauma care in its jurisdiction.
- The local EMS agency should designate appropriate facilities or execute agreements with trauma facilities in other jurisdictions.

- 1.08 Each local EMS agency shall plan for eventual provision of advanced life support services throughout its jurisdiction.
- 1.09 Each local EMS agency shall develop a detailed inventory of EMS resources (e.g., personnel, vehicles, and facilities) within its area and, at least annually, shall update this inventory.
- 1.10 Each local EMS agency shall identify population groups served by the EMS system which require specialized services (e.g., elderly, handicapped, children, non-English speakers). Each local EMS agency should develop services, as appropriate, for special population groups served by the EMS system which require specialized services (e.g., elderly, handicapped, children, non-English speakers).
- 1.11 Each local EMS agency shall identify the optimal roles and responsibilities of system participants. Each local EMS agency should ensure that system participants conform with their assigned EMS system roles and responsibilities, through mechanisms such as written agreements, facility designations, and exclusive operating areas.

Regulatory Activities

- 1.12 Each local EMS agency shall provide for review and monitoring of EMS system operations.
- 1.13 Each local EMS agency shall coordinate EMS system operations.
- 1.14 Each local EMS agency shall develop a policy and procedures manual which includes all EMS agency policies and procedures. The agency shall ensure that the manual is available to all EMS system providers (including public safety agencies, ambulance services, and hospitals) within the system.
- 1.15 Each local EMS agency shall have a mechanism to review, monitor, and enforce compliance with system policies.

System Finances

- 1.16 Each local EMS agency shall have a funding mechanism which is sufficient to ensure its continued operation and shall maximize use of its Emergency Medical Services Fund.

Medical Direction

THE LOCAL EMS SYSTEM SHALL INCLUDE APPROPRIATE MEDICAL DIRECTION. THIS IMPLIES INVOLVEMENT OF THE MEDICAL COMMUNITY AND ENSURES MEDICAL ACCOUNTABILITY IN ALL STAGES OF THE SYSTEM.

- 1.17 Each local EMS agency shall plan for medical direction within the EMS system. The plan shall identify the optimal number and role of base hospitals and alternative base stations and the roles, responsibilities, and relationships of prehospital and hospital providers.
- 1.18 Each local EMS agency shall establish a quality assurance/quality improvement program. This may include use of provider based programs which are approved by the local EMS agency and which are coordinated with other system participants.

Prehospital care providers should be encouraged to establish in-house procedures which identify methods of improving the quality of care provided.

- 1.19 Each local EMS agency shall develop written policies, procedures, and/or protocols including, but not limited to,
- a) triage,
 - b) treatment,
 - c) medical dispatch protocols,
 - d) transport,
 - e) on-scene treatment times
 - f) transfer of emergency patients,
 - g) standing orders,
 - h) base hospital contact,
 - i) on-scene physicians and other medical personnel, and
 - j) local scope of practice for prehospital personnel.
- 1.20 Each local EMS agency shall have a policy regarding "Do Not Resuscitate (DNR)" situations in the prehospital setting, in accordance with the EMS Authority's DNR guidelines.
- 1.21 Each local EMS agency, in conjunction with the county coroner(s) shall develop a policy regarding determination of death, including deaths at the scene of apparent crimes.
- 1.22 Each local EMS agency, shall ensure that providers have a mechanism for reporting child abuse, elder abuse, and suspected SIDS deaths.
- 1.23 The local EMS medical director shall establish policies and protocols for scope of practice of prehospital medical personnel during interfacility transfers.
- Each local EMS agency should develop (or encourage the development of) pre-arrival/post dispatch instructions.

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Enhanced Level: Advanced Life Support

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| 1.24 | Advanced life support services shall be provided only as an approved part of a local EMS system and all ALS providers shall have written agreements with the local EMS agency. | Each local EMS agency, based on state approval, should, when appropriate, develop exclusive operating areas for ALS providers. |
| 1.25 | Each EMS system shall have on-line medical direction, provided by a base hospital (or alternative base station) physician or authorized registered nurse/mobile intensive care nurse. | Each EMS system should develop a medical control plan which determines: a) the base hospital configuration for the system, b) the process for selecting base hospitals, including a process for designation which allows all eligible facilities to apply, and c) the process for determining the need for in-house medical direction for provider agencies. |

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Enhanced Level: Trauma Care System

- 1.26 The local EMS agency shall develop a trauma care system plan, based on community needs and utilization of appropriate resources, which determines:
- a) the optimal system design for trauma care in the EMS area, and
 - b) the process for assigning roles to system participants, including a process which allows all eligible facilities to apply.

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Enhanced Level: Pediatric Emergency Medical and Critical Care System

- 1.27 The local EMS agency shall develop a pediatric emergency medical and critical care system plan, based on community needs and utilization of appropriate resources, which determines:
- a) the optimal system design for pediatric emergency medical and critical care in the EMS area, and
 - b) the process for assigning roles to system participants, including a process which allows all eligible facilities to apply.

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Enhanced Level: Exclusive Operating Areas

- 1.28 The local EMS agency shall develop, and submit for state approval, a plan, based on community needs and utilization of appropriate resources, for granting of exclusive operating areas which determines:
- a) the optimal system design for ambulance service and advanced life support services in the EMS area, and
 - b) the process for assigning roles to system participants, including a competitive process for implementation of exclusive operating areas.

B. Staffing/Training

THE LOCAL EMS SYSTEM SHOULD INCLUDE AN ADEQUATE NUMBER OF HOSPITAL AND PREHOSPITAL HEALTH PROFESSIONALS TO PROVIDE EMERGENCY MEDICAL SERVICES ON A TWENTY-FOUR HOUR PER DAY BASIS.

PROVISION SHOULD BE MADE FOR THE INITIAL AND ONGOING TRAINING OF THESE PERSONNEL UTILIZING CURRICULA CONSISTENT WITH STATE AND NATIONAL STANDARDS.

Minimum Standards

Recommended Guidelines

Universal Level

Local EMS Agency

- 2.01 The local EMS agency shall routinely assess personnel and training needs.
- 2.02 The EMS Authority and/or local EMS agencies shall have a mechanism to approve EMS education programs which require approval (according to regulations) and shall monitor them to ensure that they comply with state regulations.
- 2.03 The local EMS agency shall have mechanisms to accredit, authorize, and certify prehospital medical personnel and conduct certification reviews, in accordance with state regulations. This shall include a process for prehospital providers to identify and notify the local EMS agency of unusual occurrences which could impact EMS personnel certification.

Dispatchers

- 2.04 Public safety answering point (PSAP) operators with medical responsibility shall have emergency medical orientation and all medical dispatch personnel (both public and private) shall receive emergency medical dispatch training in accordance with the EMS Authority's Emergency Medical Dispatch Guidelines.
- Public safety answering point (PSAP) operators with medical dispatch responsibilities and all medical dispatch personnel (both public and private) should be trained and tested in accordance with the EMS Authority's Emergency Medical Dispatch Guidelines.

First Responders (non-transporting)

- 2.05 At least one person on each nontransporting EMS first response unit shall have been trained to administer first aid and CPR within the previous three years.
- At least one person on each non-transporting EMS first response unit should be currently certified to provide defibrillation and have available equipment commensurate with such scope of practice, when such a program is justified by the response times for other ALS providers.
- At least one person on each non-transporting EMS first response unit should be currently certified at the EMT-I level and have available equipment commensurate with such scope of practice.
- 2.06 Public safety agencies and industrial first aid teams shall be encouraged to respond to medical emergencies and shall be utilized in accordance with local EMS agency policies.
- 2.07 Non-transporting EMS first responders shall operate under medical direction policies, as specified by the local EMS agency medical director.

Transport Personnel

- 2.08 All emergency medical transport vehicle personnel shall be currently certified at least at the EMT-I level. If advanced life support personnel are not available, at least one person on each emergency medical transport vehicle should be trained to provide defibrillation.

Hospital

- 2.09 All allied health personnel who provide direct emergency patient care shall be trained in CPR.
- 2.10 All emergency department physicians and registered nurses who provide direct emergency patient care shall be trained in advanced life support. All emergency department physicians should be certified by the American Board of Emergency Medicine.

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Enhanced Level: Advanced Life Support

- 2.11 The local EMS agency shall establish a procedure for accreditation of advanced life support personnel which includes orientation to system policies and procedures, orientation to the roles and responsibilities of providers within the local EMS system, testing in any optional scope of practice, and enrollment into the local EMS agency's quality assurance/quality improvement process.
- 2.12 The local EMS agency shall establish policies for local accreditation of public safety and other basic life support personnel in early defibrillation.

- 2.13 All base hospital/alternative base station personnel who provide medical direction to prehospital personnel shall be knowledgeable about local EMS agency policies and procedures and have training in radio communications techniques.

C. Communications

THE LOCAL EMS SYSTEM SHOULD MAKE PROVISION FOR TWO-WAY COMMUNICATIONS BETWEEN PERSONNEL AND FACILITIES WITHIN COORDINATED COMMUNICATIONS SYSTEM(S).

THE COMMUNICATIONS SYSTEM SHOULD INCLUDE PUBLIC ACCESS TO THE EMS SYSTEM, RESOURCE MANAGEMENT, AND MEDICAL DIRECTION ON BOTH THE BASIC LIFE SUPPORT AND ADVANCED LIFE SUPPORT LEVELS.

Minimum Standards

Recommended Guidelines

Universal Level

Communications Equipment

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| 3.01 The local EMS agency shall plan for EMS communications. The plan shall specify the medical communications capabilities of emergency medical transport vehicles, non-transporting advanced life support responders, and acute care facilities and shall coordinate the use of frequencies with other users. | The local EMS agency's communications plan should consider the availability and use of satellites and cellular telephones. |
| 3.02 Emergency medical transport vehicles and non-transporting advanced life support responders shall have two-way radio communications equipment which complies with the local EMS communications plan and which provides for dispatch and ambulance-to-hospital communication. | Emergency medical transport vehicles should have two-way radio communications equipment which complies with the local EMS communications plan and which provides for vehicle-to-vehicle (including both ambulances and non-transporting first responder units) communication. |

3.03 Emergency medical transport vehicles used for interfacility transfers shall have the ability to communicate with both the sending and receiving facilities. This could be accomplished by cellular telephone.

3.04 All emergency medical transport vehicles where physically possible, (based on geography and technology), shall have the ability to communicate with a single dispatch center or disaster communications command post.

3.05 All hospitals within the local EMS system shall (where physically possible) have the ability to communicate with each other by two-way radio.

All hospitals should have direct communications access to relevant services in other hospitals within the system (e.g., poison information, pediatric and trauma consultation).

3.06 The local EMS agency shall review communications linkages among providers (prehospital and hospital) in its jurisdiction for their capability to provide service in the event of multi-casualty incidents and disasters.

Public Access

3.07 The local EMS agency shall participate in ongoing planning and coordination of the 9-1-1 telephone service.

The local EMS agency should promote the development of enhanced 9-1-1 systems.

3.08 The local EMS agency shall be involved in public education regarding the 9-1-1 telephone service as it impacts system access.

Resource Management

3.09 The local EMS agency shall establish guidelines for proper dispatch triage which identifies appropriate medical response.

The local EMS agency should establish a emergency medical dispatch priority reference system, including systemized caller interrogation, dispatch triage policies, and pre-arrival instructions.

3.10 The local EMS system shall have a functionally integrated dispatch with systemwide emergency services coordination, using standardized communications frequencies.

The local EMS agency should develop a mechanism to ensure appropriate systemwide ambulance coverage during periods of peak demand.

D. Response/Transportation

THE LOCAL EMS SYSTEM SHOULD INCLUDE ADEQUATE GROUND, AIR, AND WATER VEHICLES MEETING APPROPRIATE STANDARDS REGARDING LOCATION, DESIGN, PERFORMANCE, EQUIPMENT, PERSONNEL, AND SAFETY.

Minimum Standards

Recommended Guidelines

Universal Level

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| 4.01 | The local EMS agency shall determine the boundaries of emergency medical transportation service areas. | The local EMS agency should secure a county ordinance or similar mechanism for establishing emergency medical transport service areas (e.g., ambulance response zones). |
| 4.02 | The local EMS agency shall monitor emergency medical transportation services to ensure compliance with appropriate statutes, regulations, policies, and procedures. | The local EMS agency should secure a county ordinance or similar mechanism for licensure of emergency medical transport services. These should be intended to promote compliance with overall system management and should, wherever possible, replace any other local ambulance regulatory programs within the EMS area. |
| 4.03 | The local EMS agency shall determine criteria for classifying medical requests (e.g., emergent, urgent, and non-emergent) and shall determine the appropriate level of medical response to each. | |
| 4.04 | Service by emergency medical transport vehicles which can be pre-scheduled without negative medical impact shall be provided only at levels which permit compliance with local EMS agency policy. | |

- 4.05 Each local EMS agency shall develop response time standards for medical responses. These standards shall take into account the total time from receipt of the call at the primary public safety answering point (PSAP) to arrival of the responding unit at the scene, including all dispatch intervals and driving time.
- Emergency medical service areas (response zones) shall be designated so that, for ninety percent of emergent responses,:
- a. the response time for a basic life support and CPR capable first responder does not exceed:
Metro/urban--5 minutes
Suburban/rural--15 minutes
Wilderness--as quickly as possible
 - b. the response time for an early defibrillation-capable responder does not exceed:
Metro/urban--5 minutes
Suburban/rural--as quickly as possible
Wilderness--as quickly as possible
 - c. the response time for an advanced life support capable responder (not functioning as the first responder) does not exceed:
Metro/urban--8 minutes
Suburban/rural--20 minutes
Wilderness--as quickly as possible
 - d. the response time for an EMS transportation unit (not functioning as the first responder) does not exceed:
Metro/urban--8 minutes
Suburban/rural--20 minutes
Wilderness--as quickly as possible.
- 4.06 All emergency medical transport vehicles shall be staffed and equipped according to current state and local EMS agency regulations and appropriately equipped for the level of service provided.
- 4.07 The local EMS agency shall integrate qualified EMS first responder agencies (including public safety agencies and industrial first aid teams) into the system.

- 4.08 The local EMS agency shall have a process for categorizing medical and rescue aircraft and shall develop policies and procedures regarding:
- a) authorization of aircraft to be utilized in prehospital patient care,
 - b) requesting of EMS aircraft,
 - c) dispatching of EMS aircraft,
 - d) determination of EMS aircraft patient destination,
 - e) orientation of pilots and medical flight crews to the local EMS system, and
 - f) addressing and resolving formal complaints regarding EMS aircraft.
- 4.09 The local EMS agency shall designate a dispatch center to coordinate the use of air ambulances or rescue aircraft.
- 4.10 The local EMS agency shall identify the availability and staffing of medical and rescue aircraft for emergency patient transportation and shall maintain written agreements with aeromedical services operating within the EMS area.
- 4.11 Where applicable, the local EMS agency shall identify the availability and staffing of all-terrain vehicles, snow mobiles, and water rescue and transportation vehicles.
- The local EMS agency should plan for response by and use of all-terrain vehicles, snow mobiles, and water rescue vehicles in areas where applicable. This plan should consider existing EMS resources, population density, environmental factors, dispatch procedures and catchment area.
- 4.12 The local EMS agency, in cooperation with the local office of emergency services (OES), shall plan for mobilizing response and transport vehicles for disaster.
- 4.13 The local EMS agency shall develop agreements permitting intercounty response of emergency medical transport vehicles and EMS personnel.
- The local EMS agency should encourage and coordinate development of mutual aid agreements which identify financial responsibility for mutual aid responses.

- 4.14 The local EMS agency shall develop multi-casualty response plans and procedures which include provisions for on-scene medical management, using the Incident Command System.
- 4.15 Multi-casualty response plans and procedures shall utilize state standards and guidelines.

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Enhanced Level: Advanced Life Support

- 4.16 All ALS ambulances shall be staffed with at least one person certified at the advanced life support level and one person staffed at the EMT-I level.

The local EMS agency should determine whether advanced life support units should be staffed with two ALS crew members or with one ALS and one BLS crew members.

On any emergency ALS unit which is not staffed with two ALS crew members, the second crew member should be trained to provide defibrillation, using available defibrillators.

- 4.17 All emergency ALS ambulances shall be appropriately equipped for the scope of practice of its level of staffing.

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Enhanced Level: Ambulance Regulation

- 4.18 The local EMS agency shall have a mechanism (e.g., an ordinance and/or written provider agreements) to ensure that EMS transportation agencies comply with applicable policies and procedures regarding system operations and clinical care.

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Enhanced Level: Exclusive Operating Permits

- 4.19 Any local EMS agency which desires to implement exclusive operating areas, pursuant to Section 1797.224, H&SC, shall develop an EMS transportation plan which addresses:
 - a) minimum standards for transportation services,
 - b) optimal transportation system efficiency and effectiveness, and
 - c) use of a competitive process to ensure system optimization.
- 4.20 Any local EMS agency which desires to grant an exclusive operating permit without use of a competitive process shall document in its EMS transportation plan that its existing provider meets all of the requirements for non-competitive selection ("grandfathering") under Section 1797.224, H&SC.

- 4.21 The local EMS agency shall have a mechanism to ensure that EMS transportation and/or advanced life support agencies to whom exclusive operating permits have been granted, pursuant to Section 1797.224, H&SC, comply with applicable policies and procedures regarding system operations and patient care.
- 4.22 The local EMS agency shall periodically evaluate the design of exclusive operating areas.

E. Facilities/Critical Care

THE LOCAL EMS SYSTEM SHOULD HAVE PROVISION FOR AN APPROPRIATE NUMBER AND LEVEL OF HEALTH FACILITIES TO RECEIVE AND TREAT EMERGENCY PATIENTS. IT SHALL HAVE A SYSTEM OF IDENTIFYING, UNDER MEDICAL DIRECTION, THE MOST APPROPRIATE FACILITY TO MANAGE A PATIENT'S CLINICAL PROBLEM AND ARRANGING FOR TRIAGE AND/OR TRANSFER OF THE PATIENT TO THIS FACILITY.

Minimum Standards

Recommended Guidelines

Universal Level

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| <ul style="list-style-type: none"> 5.01 The local EMS agency shall assess and periodically reassess the EMS-related capabilities of acute care facilities in its service area. 5.02 The local EMS agency shall establish prehospital triage protocols and shall assist hospitals with the establishment of transfer protocols and agreements. | <p>The local EMS agency should have written agreements with acute care facilities in its services area.</p> |
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- 5.03 The local EMS agency, with participation of acute care hospital administrators, physicians, and nurses, shall establish guidelines to identify patients who should be considered for transfer to facilities of higher capability and shall work with acute care hospitals to establish transfer agreements with such facilities.
- 5.04 The local EMS agency shall designate and monitor receiving hospitals and, when appropriate, specialty care facilities for specified groups of emergency patients.
- 5.05 The local EMS agency shall encourage hospitals to prepare for mass casualty management. The local EMS agency should assist hospitals with preparation for mass casualty management, including procedures for coordinating hospital communications and patient flow
- 5.06 The local EMS agency shall have a plan for hospital evacuation, including its impact on other EMS system providers.

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Enhanced Level: Advanced Life Support

- 5.07 The local EMS agency shall, using a process which allows all eligible facilities to apply, designate base hospitals or alternative base stations as it determines necessary to provide medical direction of prehospital personnel.

Enhanced Level: Trauma Care System

- 5.08 Local EMS agencies that develop trauma care systems shall determine the optimal system (based on community need and available resources) including, but not limited to:
- a) the number and level of trauma centers (including the use of trauma centers in other counties),
 - b) the design of catchment areas (including areas in other counties, as appropriate), with consideration of workload and patient mix,
 - c) identification of patients who should be triaged or transferred to a designated center, including consideration of patients who should be triaged to other specialty care centers,
 - d) the role of non-trauma center hospitals, including those that are outside of the primary triage area of the trauma center, and
 - e) a plan for monitoring and evaluation of the system.
- 5.09 In planning its trauma care system, the local EMS agency shall ensure input from both prehospital and hospital providers and consumers.

Enhanced Level: Pediatric Emergency Medical and Critical Care System

- 5.10 Local EMS agencies that develop pediatric emergency medical and critical care systems shall determine the optimal system, including:
- a) the number and role of system participants, particularly of emergency departments,
 - b) the design of catchment areas (including areas in other counties, as appropriate), with consideration of workload and patient mix,
 - c) identification of patients who should be primarily triaged or secondarily transferred to a designated center, including consideration of patients who should be triaged to other specialty care centers,
 - d) identification of providers who are qualified to transport such patients to a designated facility,
 - e) identification of tertiary care centers for pediatric critical care and pediatric trauma,
 - f) the role of non-pediatric specialty care hospitals including those which are outside of the primary triage area, and
 - g) a plan for monitoring and evaluation of the system.

- 5.11 Local EMS agencies shall identify minimum standards for pediatric capability of emergency departments including:
- a) staffing,
 - b) training,
 - c) equipment,
 - d) identification of patients for whom consultation with a pediatric critical care center is appropriate,
 - e) quality assurance/quality improvement, and
 - f) data reporting to the local EMS agency.

Local EMS agencies should develop methods of identifying emergency departments which meet standards for pediatric care and for pediatric critical care centers and pediatric trauma centers.

- 5.12 In planning its pediatric emergency medical and critical care system, the local EMS agency shall ensure input from both prehospital and hospital providers and consumers.

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Enhanced Level: Other Speciality Care Systems

- 5.13 Local EMS agencies developing speciality care plans for EMS-targeted clinical conditions shall determine the optimal system for the specific condition involved including:
- a) the number and role of system participants,
 - b) the design of catchment areas (including inter-county transport, as appropriate) with consideration of workload and patient mix,
 - c) identification of patients who should be triaged or transferred to a designated center,
 - d) the role of non-designated hospitals including those which are outside of the primary triage area, and
 - e) a plan for monitoring and evaluation of the system.
- 5.14 In planning other speciality care systems, the local EMS agency shall ensure input from both prehospital and hospital providers and consumers.

F. Data Collection/System Evaluation

THE LOCAL EMS SYSTEM SHOULD HAVE MECHANISMS TO COLLECT DATA REGARDING OPERATIONAL AND CLINICAL ASPECTS OF THE SYSTEM, COVERING ALL STAGES OF THE SYSTEM. BOTH DAY-TO-DAY QUALITY ASSURANCE/QUALITY IMPROVEMENT AUDITS AND OVERALL EVALUATIONS OF SYSTEM OPERATIONS ARE NECESSARY.

Minimum Standards

Recommended Guidelines

Universal Level

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| 6.01 | The local EMS agency shall establish an EMS quality assurance/quality improvement (QA/QI) program to evaluate the response to emergency medical incidents and the care provided to specific patients. The programs shall address the total EMS system, including all prehospital provider agencies, base hospitals, and receiving hospitals. It shall address compliance with policies, procedures, and protocols and identification of preventable morbidity and mortality and shall utilize state standards and guidelines. The program shall use provider based QA/QI programs and shall coordinate them with other providers. | The local EMS agency should have the resources to evaluate the response to, and the care provided to, specific patients. |
| 6.02 | Prehospital records for all patient responses shall be completed and forwarded to appropriate agencies as defined by the local EMS agency. | |
| 6.03 | Audits of prehospital care, including both system response and clinical aspects, shall be conducted. | The local EMS agency should have a mechanism to link prehospital records with dispatch, emergency department, in-patient and discharge records. |

- 6.04 The local EMS agency shall have a mechanism to review medical dispatching to ensure that the appropriate level of medical response is sent to each emergency and to monitor the appropriateness of prearrival/post dispatch directions.
- 6.05 The local EMS agency shall establish a data management system which supports its systemwide planning and evaluation (including identification of high risk patient groups) and the QA/QI audit of the care provided to specific patients. It shall be based on state standards.
- The local EMS agency should establish an integrated data management system which includes system response and clinical (both prehospital and hospital) data.
- The local EMS agency should use patient registries, tracer studies, and other monitoring systems to evaluate patient care at all stages of the system.
- 6.06 The local EMS agency shall establish an evaluation program to evaluate EMS system design and operations, including system effectiveness at meeting community needs, appropriateness of guidelines and standards, prevention strategies that are tailored to community needs, and assessment of resources needed to adequately support the system. This shall include structure, process, and outcome evaluations, utilizing state standards and guidelines.
- 6.07 The local EMS agency shall have the resources and authority to require provider participation in the systemwide evaluation program.
- 6.08 The local EMS agency shall, at least annually report on the results of its evaluation of EMS system design and operations to the Board(s) of Supervisors, provider agencies, and Emergency Medical Care Committee(s).

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Enhanced Level: Advanced Life Support

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| 6.09 | The process used to audit treatment provided by advanced life support providers shall evaluate both base hospital (or alternative base station) and prehospital activities. | The local EMS agency's integrated data management system should include prehospital, base hospital, and receiving hospital data. |
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Enhanced Level: Trauma Care System

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| 6.10 | The local EMS agency, with participation of acute care providers, shall develop a trauma system evaluation and data collection program, including: a) a trauma registry, b) a mechanism to identify patients whose care fell outside of established criteria, and c) a process of identifying potential improvements to the system design and operation. | |
| 6.11 | The local EMS agency shall ensure that designated trauma centers provide required data to the EMS agency, including patient specific information which is required for quality assurance/quality improvement and system evaluation. | The local EMS agency should seek data on trauma patients who are treated at non-trauma center hospitals and shall include this information in their quality assurance/quality improvement and system evaluation program. |

G. Public Information and Education

THE LOCAL EMS SYSTEM SHOULD PROVIDE PROGRAMS TO ESTABLISH AN AWARENESS OF THE EMS SYSTEM, HOW TO ACCESS THE SYSTEM AND HOW TO USE THE SYSTEM. PROGRAMS TO TRAIN MEMBERS OF THE PUBLIC IN FIRST AID AND CPR SHOULD BE AVAILABLE.

Minimum Standards

Recommended Guidelines

Universal Level

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| 7.01 | The local EMS agency shall promote the development and dissemination of information materials for the public which addresses: a) understanding of EMS system design and operation, b) proper access to the system, c) self help (e.g., CPR, first aid, etc.), d) patient and consumer rights as they relate to the EMS system, e) health and safety habits as they relate to the prevention and reduction of health risks in target areas, and f) appropriate utilization of emergency departments. | The local EMS agency should promote targeted community education programs on the use of emergency medical services in its service area. |
| 7.02 | The local EMS agency, in conjunction with other local health education programs, shall work to promote injury control and preventive medicine. | The local EMS agency should promote the development of special EMS educational programs for targeted groups at high risk of injury or illness. |
| 7.03 | The local EMS agency, in conjunction with the local office of emergency services, shall promote citizen disaster preparedness activities. | The local EMS agency, in conjunction with the local office of emergency services (OES), should produce and disseminate information on disaster medical preparedness. |
| 7.04 | The local EMS agency shall promote the availability of first aid and CPR training for the general public. | The local EMS agency should adopt a goal for training of an appropriate percentage of the general public in first aid and CPR. A higher percentage should be achieved in high risk groups. |

H. Disaster Medical Response

THE LOCAL EMS SYSTEM MUST BE CAPABLE OF EXPANDING ITS STANDARD OPERATIONS TO MEET THE NEEDS CREATED BY MULTI-CASUALTY INCIDENT AND MEDICAL DISASTERS, INCLUDING INTEGRATION OF OUT-OF- AREA RESOURCES.

Minimum Standards

Recommended Guidelines

Universal Level

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| 8.01 | In coordination with the local office of emergency services (OES), the local EMS agency shall participate in the development of medical response plans for catastrophic disasters, including those involving toxic substances. | |
| 8.02 | Medical response plans and procedures for catastrophic disasters shall be applicable to incidents caused by a variety of hazards, including toxic substances. | The California Office of Emergency Services' multi-hazard functional plan should serve as the model for the development of medical response plans for catastrophic disasters. |
| 8.03 | All EMS providers shall be properly trained and equipped for response to hazardous materials incidents, as determined by their system role and responsibilities. | |
| 8.04 | Medical response plans and procedures for catastrophic disasters shall use the Incident Command System (ICS) as the basis for field management. | The local EMS agency should ensure that ICS training is provided for all medical providers. |
| 8.05 | The local EMS agency, using state guidelines, shall establish written procedures for distributing disaster casualties to the medically most appropriate facilities in its service area. | The local EMS agency, using state guidelines, and in consultation with Regional Poison Centers, should identify hospitals with special facilities and capabilities for receipt and treatment of patients with radiation and chemical contamination and injuries. |

- 8.06 The local EMS agency, using state guidelines, shall establish written procedures for early assessment of needs and shall establish a means for communicating emergency requests to the state and other jurisdictions. The local EMS agency's procedures for determining necessary outside assistance should be exercised yearly.
- 8.07 A specific frequency (e.g., CALCORD) or frequencies shall be identified for interagency communication and coordination during a disaster.
- 8.08 The local EMS agency, in cooperation with the local OES, shall develop an inventory of appropriate disaster medical resources to respond to multi-casualty incidents and disasters likely to occur in its service area. The local EMS agency should ensure that emergency medical providers and health care facilities have written agreements with anticipated providers of disaster medical resources.
- 8.09 The local EMS agency shall establish and maintain relationships with DMAT teams in its area. The local EMS agency should support the development and maintenance of DMAT teams in its area.
- 8.10 The local EMS agency shall ensure the existence of medical mutual aid agreements with other counties in its OES region and elsewhere, as needed, which ensure that sufficient emergency medical response and transport vehicles, and other relevant resources will be made available during significant medical incidents and during periods of extraordinary system demand.
- 8.11 The local EMS agency, in coordination with the local OES and county health officer(s), and using state guidelines, shall designate casualty collection points (CCPs).
- 8.12 The local EMS agency, in coordination with the local OES, shall develop plans for establishing CCPs and a means for communicating with them.

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| 8.13 | The local EMS agency shall review the disaster medical training of EMS responders in its service area, including the proper management of casualties exposed to and/or contaminated by toxic or radioactive substances. | The local EMS agency should ensure that EMS responders are appropriately trained in disaster response, including the proper management of casualties exposed to or contaminated by toxic or radioactive substances. |
| 8.14 | The local EMS agency shall encourage all hospitals to ensure that their plans for internal and external disasters are fully integrated with the county's medical response plan(s). | At least one disaster drill per year conducted by each hospital should involve other hospitals, the local EMS agency, and prehospital medical care agencies. |
| 8.15 | The local EMS agency shall ensure that there is an emergency system for interhospital communications, including operational procedures. | |
| 8.16 | The local EMS agency shall ensure that all prehospital medical response agencies and acute-care hospitals in its service area, in cooperation with other local disaster medical response agencies, have developed guidelines for the management of significant medical incidents and have trained their staffs in their use. | The local EMS agency should ensure the availability of training in management of significant medical incidents for all prehospital medical response agencies and acute-care hospital staffs in its service area. |

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Enhanced Level: Advanced Life Support

- 8.17 The local EMS agency shall ensure that policies and procedures allow advanced life support personnel and mutual aid responders from other EMS systems to respond and function during significant medical incidents.

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Enhanced Level: Specialty Care Systems

- 8.18 Local EMS agencies developing trauma or other specialty care systems shall determine the role of identified specialty centers during a significant medical incidents and the impact of such incidents on day-to-day triage procedures.

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Enhanced Level: Exclusive Operating Areas/Ambulance Regulation

- 8.19 Local EMS agencies which grant exclusive operating permits shall ensure that a process exists to waive the exclusivity in the event of a significant medical incident.

GLOSSARY

advanced life support (ALS) - medically accepted, life sustaining, invasive procedures, provided at the direction of a physician or authorized registered nurse.

ambulance service - a qualified provider of medical transportation for patients requiring treatment and/or monitoring due to illness or injury.

ambulance service area (zone) - a designated geographic area contiguous to other such areas and delineated by the local EMS agency for the purpose of ensuring availability of emergency medical transport services at all times by one or more specified providers.

base hospital - one of a limited number of hospitals which, upon entering into written contractual agreement with the local EMS agency, is responsible for directing the advanced life support system or limited advanced life support system assigned to it.

basic life support (BLS) - medically accepted non-invasive procedures used to sustain life.

cardiopulmonary resuscitation (CPR) - opening and maintaining an airway, providing artificial ventilation by rescue breathing and providing artificial circulation by means of external cardiac compression.

casualty collection point (CCP) - a site for the congregation, triage (sorting), preliminary treatment, and evacuation of casualties following a disaster.

catchment area - the geographic area served by a specified health care facility or EMS agency.

centralized EMS dispatch center - a system which is responsible for establishing communications channels and identifying the necessary equipment and facilities to permit immediate management and control of an EMS patient. This operation must provide access and availability to public safety resources essential to the effective and efficient EMS management of the immediate EMS problem.

communications system - those resources and arrangements for notifying the EMS system of an emergency, for mobilizing and dispatching resources, for exchanging information, for remote monitoring of vital indicators, and for the radio transmission of treatment procedures and directions.

definitive care - a level of therapeutic intervention capable of providing comprehensive health care services for a specific condition.

designated facility - a hospital which has been designated by a local EMS agency to perform specified emergency medical services systems functions pursuant to guidelines established by the authority.

disaster - see medical disaster

dispatch triage - the process of sorting requests for emergency medical assistance based on information provided by the reporting party to that the appropriate resources can be sent.

emergency - a situation in which there is a real or perceived need for immediate action, attention or decision making to prevent mortality or to reduce serious morbidity (adjective form-- emergent).

emergency air ambulance - an aircraft with emergency medical transport capabilities.

emergency ground ambulance - a surface transportation vehicle that is specialty designed, constructed, maintained, supplied, equipped, and intended for exclusive use in emergency transport of the sick and injured.

emergency ambulance service - an emergency medical transport provider operating within an organized EMS system for the purpose of assuring twenty-four (24) hour availability of such services. This pertains to all ground, air or water emergency medical transport.

emergency department - the area of a licensed general acute care facility that customarily receives patients in need of emergent medical evaluation and/or care.

emergency medical services (EMS) - the provision of services to patients requiring immediate assistance due to illness or injury, including access, response, rescue, prehospital and hospital treatment, and transportation.

EMS plan - a plan for the delivery of emergency medical services.

EMS system - a coordinated arrangement of resources (including personnel, equipment, and facilities) which are organized to respond to medical emergencies, regardless of the cause.

first responder - the first person (unit) dispatched to the scene of a medical emergency to provide patient care.

health facility - any facility, place or building which is organized, maintained and operated for the diagnosis, care and treatment of human illness or injury, physical or mental, including convalescence, rehabilitation and/or pre- and post-natal care, for one or more persons, to which patients are admitted for twenty-four (24) hours or longer.

hospital - an acute care hospital licensed under Chapter 2 (commencing with Section 1250) of Division 2, Health and Safety Code.

intervener physician - a physician on the scene of a medical emergency who offers to assist advanced life support personnel.

medical control - physician responsibility for the development, implementation, and evaluation of the clinical aspects of an EMS system.

medical disaster - a natural or human-caused event which overwhelms the medical resources within a system. It is characterized by a wide geographic scope and by damage to medical facilities and the transportation system. Because of its wide scope, it must be managed by a centralized, off-scene command system.

medical emergency - an unforeseen situation in which there is a real or perceived need for immediate medical care, based on an injury or other unforeseen acute physical or mental disorder.

medical protocol - pre-established physician authorized procedures or guidelines for medical care of a specified clinical situation, based on patient presentation.

metro - all census places with a population density of greater than 500 persons per square mile; or census tracts and enumeration districts without census tracts which have a population density of greater than 500 persons per square mile.

multi-casualty incident - a natural or human-caused event which may overwhelm the medical resources within a system. It is characterized by a limited geographic scope and can be managed by an on-scene command system.

mutual aid - the furnishing of resources, from one individual or agency to another individual or agency, including but not limited to facilities, personnel, equipment, and services, pursuant to an agreement with the individual or agency, for use within the jurisdiction of the individual or agency requesting assistance.

non-emergency - a situation in which there is a no perceived need for immediate action, attention or decision making to prevent mortality or to reduce serious morbidity (adjective form--non-emergent).

pediatric emergency medical and critical care system - a subsystem within the EMS system designed to manage the treatment of the emergent pediatric patient.

prehospital emergency medical services - a sub-system of the emergency medical services system which provides medical services to patients requiring immediate assistance due to illness or injury, prior to the patient's arrival at an emergency medical facility.

prehospital time - the interval of time between activation of the emergency medical transport response to an emergency incident and arrival of the emergency patient at a receiving facility.

primary transport - transport of an emergency patient from the scene of an emergency incident to a receiving facility.

provider - an organization, institution, or individual authorized to provide direct patient care.

public safety agency - a functional division of a public agency which provides fire fighting, police, medical or other emergency services.

public safety answering point (PSAP) - the location at which an emergency telephone call is answered and, either appropriate resources are dispatched or the request is relayed to the responding agency.

public safety telephone operators - the initial answerer of an emergency call.

quality assurance/quality improvement - a method of evaluation of services provided, which includes defined standards, evaluation methodology(ies), and utilization of evaluation results for continued system improvement.

receiving facility - a general acute care facility which has been assigned a role in the EMS system by the local EMS agency.

response time - the total interval from receipt of a request for medical assistance to the primary public safety answering point (PSAP) to arrival of the responding unit at the scene. This includes all dispatch intervals and driving time.

rural - all census places with a population density of 7 to 50 persons per square mile; or census tracts or enumeration districts without census tracts which have a population density of 7 to 50 persons per square mile.

secondary care - health care beyond the primary. Included are more sophisticated diagnostic methods and techniques, and laboratory facilities. This level of care is nearly available in medical care institutions serving a large population. (SOURCE: Tabors, 16th edition). Contrast with primary and tertiary care.

secondary transport - transport of an emergency patient from an initial receiving facility to a second treatment facility.

service area - the geographic area within which an EMS agency or health care facility provides service.

significant medical incident - a medical incident which is larger than normal. It includes both multicasualty incidents and medical disasters.

statewide EMS system - a network of local EMS systems, integrated and coordinated at the state level.

suburban - All census places with a population density of 51 to 100 persons per square mile; or census tracts or enumeration districts without census tracts which have a population density of 51 to 100 persons per square mile.

transfer agreement - a written agreement between health facilities providing reasonable assurance that transfer of patients will be effected between health facilities whenever such transfer is medically appropriate, as determined by the attending physician.

transport time - the interval of time required for emergency medical transport of an ill or injured person from the scene of an emergency incident to arrival at a receiving facility.

trauma care system - a subsystem within the EMS system designed to manage the treatment of the trauma patient.

triage - the process of sorting the sick and injured on the basis of type and urgency of condition present, so that they may be properly routed to the medical facility most appropriately situated and equipped for their care.

urban - all census places with a population density of 101 to 500 persons per square mile; or census tracts and enumeration districts without census tracts which have a population density of 101 to 500 persons or more per square mile.

urgent - a situation in which there is a real or perceived need for immediate action, attention, or decision making to reduce morbidity, but where no life threatening situation appears to exist.

wilderness - census tracts or enumeration districts without census tracts which have a population of less than seven persons per square mile.