

Emergency Medical Dispatching

Consensus Panel Chaired and Consensus Documents and Position Paper written by Jeff J. Clawson, MD, Salt Lake City and Salt Lake County Fire Department

The following document expresses the positions developed by the membership of the National Association of EMS Physicians (NAEMSP). This position is based on the Consensus Document for Emergency Medical Dispatching, on file at the NAEMSP office.

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Introduction

Medical Dispatching has been the last major area in the prehospital emergency medical services chain of care to be identified and developed. The "health" of many EMS systems can be gauged by the appropriateness of training, protocols, and medical control and direction of dispatchers. The involvement of prehospital EMS physicians in the world of dispatch is relatively new but unquestionably essential. For this reason, the National Association of EMS Physicians has taken the following position relative to Emergency Medical Dispatching.

Position

The trained Emergency Medical Dispatcher (EMD) is an essential part of a prehospital EMS system. Medical direction and control for the EMD and the dispatch center also constitutes part of the prescribed responsibilities of the Medical Director of the EMS system. The functions of emergency medical dispatching must include the use of predetermined questions, pre-arrival telephone instructions, and pre-assigned response levels and modes. The EMD must understand the philosophy and psychology of interrogation and telephone interventions, basic emergency medical priorities and interventions, and be expert in dispatch life support. Minimum training levels

must be established, standardized, and all EMDs must be certified by governmental authority.

Position Statements

1. The medical aspects of emergency medical dispatching and communications are an integral part of the responsibilities of the Medical Director of an EMS system.
2. Proven knowledge and skills in the area known as basic telecommunicators are requisite for all public safety telecommunications.
3. Understanding the philosophy of medical interrogation and the psychology of providing Pre-Arrival Instructions is integral to the training and functioning of EMDs.
4. Pre-arrival instructions are a mandatory function of each EMD in a medical dispatch center.
5. Dispatch prioritization is an essential element in any EMS system for it establishes the appropriate level of care including the urgency and type of response. Standard medically approved telephone instructions by trained EMDs are safe to give and in many instances are a moral necessity.
6. Training as EMDs is required for all dispatchers functioning in medical dispatch agencies and requires unprecedented cooperation between the diverse disciplines of telecommunications and emergency medicine necessary to provide this unique teaching forum. This training includes content and result in competence which differ substantially from that standardly provided for EMTs and paramedics. It must be taught by specially-trained instructors.
7. Quality Assurance, Risk Management, and Medical Control and Direction are essential elements to the management of medical dispatch operations within the EMS system.
8. Certification and authorization by government agencies in accordance with standards promulgated by NAEMSP in conjunction with other organizations must be required.

Definitions

Emergency Medical Dispatching: the reception and management of requests for emergency medical assistance in an EMS system.

Emergency Medical Dispatcher (EMD): a specially trained public safety telecommunicator with the specific emergency medical knowledge essential for the appropriate and efficient functioning of emergency medical dispatching.

Medical Dispatch Center: any agency that routinely accepts calls for EMD assistance from the public and/or that dispatches prehospital emergency medical personnel pursuant to such requests.

Public Safety Telecommunicator: An individual trained to communicate by electronic means with persons seeking emergency assistance and with agencies and individuals providing such assistance.

Basic Telecommunications Skills: the generic body of knowledge and skills necessary to function as a Public Safety Telecommunicator whether performing specifically in the role of medical, fire, law enforcement, aeromedical park service dispatcher, or in any combination of these roles.

Medical Direction: * the management and accountability for the medical care aspects for the medical care aspects of an EMD program including: 1) the direction and oversight of the training of the EMD; 2) development and monitoring of both the operational and the emergency medical priority dispatch protocol systems; 3) participation in EMD system evaluation; and 4) directing the medical care rendered by the EMDs.

Medical Control: * the EMS physician(s) responsible for the provision of education, training, protocols, critiques, leadership, testing, certification, decertification, standards, advice, and quality control through an official authoritative position within the prehospital EMS system.

Medical Priority Dispatch System: a medically approved system used by a medical dispatch center to dispatch appropriate aid to medical emergencies, which include: 1) systematized caller interrogation; 2) systematized Pre-Arrival Instructions; and 3) protocols which match the dispatcher's evaluation of the injury or illness type and severity with vehicle response mode and configuration.

Pre-Arrival Instructions: telephone-rendered, medically approved, written instructions given by trained EMDs through callers which help to provide aid to the victim and control of the situation prior to arrival of prehospital personnel.

Dispatch Life Support: the knowledge, procedures, and skills used by trained EMDs in providing care through Pre-Arrival Instructions to callers. It consists

of those BLS and ALS principles that are appropriate to application by medical dispatchers.

Quality Assurance: the comprehensive program of setting standards and monitoring the performance of the clinical, operational, and personnel components of the medical dispatch center in relation to these accepted standards.

Risk Management: a sub-component of the Quality Assurance program designed to identify problematic situations and to assist EMS Medical Directors, dispatch supervisors, and EMDs in modifying practice behaviors found to be deficient by quality assessment procedures; to protect the public against incompetent practitioners; and to modify structural, resource, and protocol deficiencies that may exist in the emergency medical dispatch system.

Vehicle Response Configuration: the specific set of vehicle(s) in terms of type, capabilities, and numbers responding as the direct result of actions taken by the emergency medical dispatch system.

Vehicle Response Mode: the manner of response used by the personnel and vehicles dispatched which reflects the level of urgency of a particular required treatment or transport (e.g., use of emergency driving techniques such as red-lights-and-siren vs. routine driving).

Discussion

The Emergency Medical Dispatcher (EMD) is the principal link between the public in need of emergency medical assistance and the EMS system. As such, the EMD plays a key role in the ability of the EMS system to respond to a perceived medical emergency most often, all of the information obtained is through telephone communications with a caller who often is distressed and out of control. The EMD must have skills which allow him/her to match the personnel and equipment dispatched to the perceived emergency. Thus, the EMD must be able to discern the nature and the urgency of the illness(es) and/or injury(ies) in a manner which allows selection of the most appropriate response configuration and mode.

Therefore, the EMD must possess special knowledge and a set of medical and technological skills which are unique for the EMS system. They need to know sufficient medical knowledge in lay terminology to acquire an appropriate medical history and be cognizant of all of the characteristics inherent within the EMS system in which they function. Furthermore, recent studies indicate that EMDs may play a very important role in the provision of

instructions by which a caller may initiate appropriate treatment and life support prior to the arrival of any of the EMS responding vehicles and personnel. The capable EMD provides "first responder" care through the surrogate caller. Such skills have been shown to help preserve lives, prevent further injuries, and even assist with the delivery of babies.

Without these specially trained, talented, dedicated, and skilled professionals, an EMS system cannot function optimally. Unfortunately, in most situations, persons performing the dispatch functions have had little more training than the average layperson. Inadequate personnel and equipment may be dispatched for major problems while too comprehensive a portion of the system may be mobilized for minor problems. This latter circumstance may result in depriving others in need of the committed services to be deprived of them. Any break in these important functions result in failure of the entire EMS system. An EMS system only can be as good as its EMDs.

Since emergency medical dispatching is key to the successful operation of any prehospital EMS system, the policies and procedures utilized by trained EMDs must conform to national standards and local capabilities. The history obtained by telephone and both the medical care dictated by the EMD and the responses initiated are functions of the type and level of medical care possible from the specific EMS system. The quality of all of the medical care delivered by a system is the responsibility of the medical director of that prehospital system. Therefore, all of the policies and procedures used by the Medical Dispatch Center in terms of medical care rendered are part of the responsibilities of the Medical Director and hence, must be approved by the Medical Director of the system. Key to the Medical Director's role in the management of medical dispatch centers is his or her detailed understanding of the concepts of EMD and its physical operation, involvement in all aspects of quality assurance of medical dispatch, and medical direction and accountability for the protocols, policies, and procedures relevant to the medical dispatch activities of the EMD. In summary, the medical aspects of emergency medical dispatching and communications are an integral part of the responsibilities of the Medical Director of each EMS system.

Certain skills are common to all public safety communicators. These include the theory and operation of complex communication equipment's, troubleshooting the same, and basic radio and telephone communication skills. Serious liability for dispatch centers commonly results due to the lack of these essential skills. The training and certification of the EMD is built upon this baseline of knowledge and skills, which is generic for performing in

the role of medical, fire, law enforcement, aeromedical, park service dispatcher, or any combination of these services.

The ability to interact with anxious, uncooperative, and, at times, hysterical callers rests on the ability of the EMD to anticipate the actions of the undirected caller, assist the caller in regaining control, and then, convert the caller into a calmer, first responder is a special one. Each is an essential step in the performance of the prescribed duties and contributes to the substantial responsibilities delegated to the EMD by the Medical Director and the Medical Dispatch Center. Each of these steps requires special training and the development of different skills. This knowledge and special set of skills are not part of the standardized EMT or paramedic curricula. Each is specific to medical dispatch training.

Since the value of EMDs providing Pre-Arrival Instructions to callers in attendance with victims of cardiopulmonary arrest was first demonstrated 14 years ago, Pre-Arrival Instructions have become a mandatory function of the EMD. In essence, the EMD is the first "first-responder" and through immediate action effectively can eliminate the often deadly gaps which may occur between receipt of the call and the beginning of treatment which is delayed until after the arrival of the responding vehicles and personnel. First response consists of telephone instructions provided by trained EMDs functioning from standard, medically approved protocols. Such instructions are safe and, in many instances, are a moral necessity. The telephone instructions are given through the caller to help another person or the caller protect the victim(s) from further harm or injury, to initiate life-impacting treatments, and to transform an undirected caller into a calmer sense "rescuer" who no longer needs to be helpless. Training, certification, and recertification in Dispatch Life Support (DLS), which includes that portion of BLS appropriate to application by medical dispatchers is necessary to maintain and continually upgrade this unique, and at times, life-saving, non-visual skill. Hence, it is essential that EMDs understand the philosophy of medical interrogation and the psychology associated with the provision of Pre-Arrival Instructions. This knowledge and the associated skills must be integral parts of the training, direction, and management of EMDs and any Medical Dispatch Center.

Dispatch Prioritization is an essential element in EMS and requires careful attention by both the EMD, his or her supervisor, and the EMS physician responsible for medical control. These priorities must reflect the level of appropriate response including types of personnel (ALS vs. BLS vs. first responder), response configuration (numbers and types of vehicles responding), and mode of response (re-lights-and-siren vs. routine). Haphazard or arbitrary dispatch decisions have been shown to place victims

of serious illness or injury at unnecessary risk and have resulted in significant liability to systems lacking these essential protocols, procedures, and policies.

With the use of unified, standard protocols, the emergency medical dispatcher's conduct will be less vulnerable to charges of careless or reckless judgment. For example, without a unified system of standard protocols, one dispatcher may decide that crucial situation exists primarily on the basis of the level of emotion he/she detects in the caller's voice, while another may depend on his or her own "gut" reaction without being able to articulate a clear reason for a decision. A unified procedure provides an excellent method of safeguarding against arbitrary decision-making. Similarly, EMS employers can point to such guidelines as a system of risk management in an area in which human error and its dire consequences clearly are foreseeable. The appropriate prioritization of the type, number, and manner of responses is essential to effect an appropriate reduction of responding vehicles traveling red-lights-and-siren, and therefore unnecessary vehicle accidents. This will assure that emergency crews will not be committed inappropriately to non-emergency cases, and that the right care will be sent in the right way to the right patient at the right time.

The necessity to prioritize responses is evident in the majority of EMS systems today. In order to prioritize calls properly, the EMD must be well-versed in the medical conditions and incident types that constitute their daily routine. Training in these priorities must be detailed and dispatch-specific (not EMT or paramedic training per se). The development of dispatch priorities for an agency or locality must be carefully thought out and ultimately approved by those physicians responsible for medical control.

Since much of the knowledge and many of the skills required by the EMD are dispatch-specific, a curriculum for their training differs substantially from those used in the preparation of EMTs or paramedics. Training as an EMT or paramedic does not adequately prepare a person for the role of an EMD. Much of the required EMD curriculum cannot be found in standard EMS training curricula. It consists of content and emphasis which differ significantly from that used for the training of all other health professionals and public safety dispatchers. The unique teaching forum necessary to provide this essential training requires unprecedented cooperation between the diverse disciplines of telecommunications and prehospital and emergency medicine. Instructor requirements should include line dispatch experience as a trained EMD for the Primary Dispatch Instructor and a minimum of advance life support training and experience for the Medical Dispatch Instructor who is responsible for teaching the core course materials, specifically the medical dispatch priorities. All instructors should have successfully completed a

credible EMD course prior to assuming a teaching role. Essentially, training of EMDs is required for all dispatchers functioning in medical dispatch agencies, and contains significant content and competence which differs substantially from that standardly provided to EMTs and paramedics.

Quality assurance, risk management, and medical direction and control are essential elements for the ongoing well-being of any EMS system. Routine medical reviews of the activities of EMDs and medical dispatch centers in general is vital to the health of all EMS systems. Dispatch review committees constitute one method of providing quality assurance for EMD activities and the medical aspects of the operation of a medical dispatch center. Such committees should be composed of prehospital EMS physicians and those responsible for the provision of medical control, dispatch supervision and management personnel, EMTs and/or paramedics, and EMDs. Each must be familiar with all aspects of EMS communications, specifically the medical dispatch process, and must be involved in an ongoing way with its function relative to medical issues, operations, and patient care.

Recognition of the important role of emergency medical dispatchers in the delivery of prehospital emergency medical services by responsible governmental agencies, and by the public in general, is important for the public health and protection. Without such recognition and action, it is unlikely that the training of these important professionals will be mandated. An ever-increasing number of states, regions, counties, and municipalities certify or at least require standard training of EMDs. This constitutes an essential pre-requisite to the practice by EMDs. Minimum standards must be developed and promulgated for the training, certification, and or licensure of all public safety telecommunicators, specifically Emergency Medical Dispatchers.

Conclusion

In order to assure the professionalism of this key aspect of prehospital emergency medical care, EMS physicians should participate actively in the development, training, quality assurance, medical control and direction of EMDs and medical dispatch centers. The Emergency Medical Dispatcher provides an all-important professional link in the overall EMS chain of care and survival.

*Relates specifically to Emergency Medical Dispatch