Designation: F 1258 – 95 (Reapproved 2001)

Standard Practice for Emergency Medical Dispatch[1]

This standard is issued under the fixed designation F 1258; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This practice covers the definition of responsibilities, knowledge, practices, and organizational support required to implement, perform, and manage effectively the emergency medical dispatch function.

1.2 This practice is useful for planning and evaluating the training, implementation, and organizational support to satisfy the functional needs of emergency medical dispatching.

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

2. Referenced Documents

2.1 *ASTM Standards:*

F 1031 Practice for Training the Emergency Medical Technician (Basic)[2]

F 1381 Guide for Planning and Developing 9-1-1 Enhanced Telephone Systems[2]

F 1552 Practice for Training Instructor Qualification and Certification Eligibility of Emergency Medical Dispatchers[2]

F 1560 Practice for Emergency Medical Dispatch Management[2]

3. Terminology

3.1 *Definitions of Terms Specific to This Standard:*

3.1.1 *emergency medical dispatcher (EMD)*—a trained public safety telecommunicator with additional training and specific emergency medical knowledge essential for the efficient management of emergency medical communications.

3.1.2 *emergency medical dispatching*—the reception and management of requests for emergency medical assistance.

3.1.3 *emergency medical dispatch priority reference system (EMDPRS)*—a medically approved system used by a dispatch agency to provide aid to medical emergencies that includes: systematized caller interrogation questions, systematized prearrival instructions, and protocols matching the dispatcher's evaluation of injury or illness severity with vehicle response mode and configuration.

3.1.4 *medical direction*—the management and accountability for the medical care aspects of an emergency medical dispatch (EMD) program including: the medical monitoring oversight of the training of the EMD personnel; approval and medical control of the operational emergency medical dispatch priority reference system (EMDPRS); evaluation of the medical care and prearrival instructions rendered by the EMD personnel; direct participation in the EMD system evaluation, quality, assurance, and quality improvement process and mechanisms; and, responsibility for the medical decisions and care rendered by the emergency medical dispatcher and emergency medical dispatch program.

3.1.5 *public safety telecommunicator*—an individual trained to communicate remotely with persons seeking emergency assistance and with agencies and individuals providing such assistance.

3.1.6 *telephone aid*—consists of "ad-libbed" telephone instructions provided by either trained or untrained dispatchers and differs from DLS-based prearrival instructions in that the instructions provided to the caller are based on the dispatcher's knowledge or previous training in a procedure or treatment without following a scripted prearrival instruction protocol. They cannot be medically preapproved since they do not exist in written form.

3.1.7 *telephone treatment sequence protocols*—specific treatment strategies designed in a conversational script format that direct the EMD step by step in giving critical prearrival instructions such as CPR, Heimlich maneuver, mouth-to-mouth breathing, and childbirth instruction.

3.1.8 *vehicle response configuration*—the specific vehicle(s) of varied types, capabilities, and numbers responding to render assistance.

3.1.9 *vehicle response mode*—the use of emergency driving techniques, such as warning lights and siren, versus a routine driving response.

[1] This practice is under the jurisdiction of ASTM Committee F30 on Emergency Medical Services and is the direct responsibility of Subcommittee F30.04 on Communications.

Current edition approved Oct. 10, 1995. Published December 1995. Originally published as F 1258 – 90. Last previous edition F 1258 – 90.

[2] *Annual Book of ASTM Standards*, Vol 13.02.

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4. Summary of Practice

4.1 An emergency medical dispatcher is a trained public safety telecommunicator with additional training and specific emergency medical knowledge essential for assessment of medical emergencies and limited remote treatment and apportionment of medical priorities. The EMD functions under the medical authority of an off-line medical director to receive and manage calls for emergency medical assistance through the systematic interrogation of callers, using procedures established by the off-line medical director who remains responsible for the medical quality assurance of the EMD program.

4.1.1 The EMD's role includes the ability to:

4.1.1.1 Remotely evaluate the patient or incident,

4.1.1.2 Interpret the requirement and need for emergency medical resources,

4.1.1.3 Allocate the appropriate resources,

4.1.1.4 Identify conditions requiring prearrival instructions and provide them to the caller when necessary, possible and appropriate,

4.1.1.5 Coordinate the response of emergency medical and other public safety resources,

4.1.1.6 Provide information to the responding units regarding the emergency scene and patient, and

4.1.1.7 Record and retrieve emergency medical response records.

4.1.2 There must be continuity in the delivery of EMD care. To provide correct medical care safely and effectively, the EMD that is medically directing, evaluating, and coding must maintain direct access to the calling party and must use a medically approved emergency medical dispatch priority reference system. The person giving the medical instruction to the caller must be the same person that asks the systematic interrogation questions.

4.1.3 To accomplish the above safely and effectively, the EMD must use a medically approved EMDPRS that includes:

4.1.3.1 Systematized caller interrogation questions,

4.1.3.2 Systematized prearrival instructions, and

4.1.3.3 Protocols that determine vehicle response mode and configuration based on the EMD's evaluation of injury or illness severity.

4.2 This practice is intended to be used by agencies as a baseline for establishing a certifying emergency medical dispatch training program that includes the implementation of the emergency medical dispatch priority reference system, under medical direction, and provides a means of evaluating the EMD program.

4.3 This practice will provide a common set of expectations for training, performance, and preplanned response based on understanding of the medical condition, thorough interrogation, caller intervention, safe responses, and prearrival instructions.

4.4 This practice establishes the EMD's role and responsibilities in receiving, managing, and dispatching calls for medical assistance and related agency coordination.

4.5 An organizational structure as defined in Practice F 1560 must be in place before implementing the EMD program; therefore, this practice establishes some general recommendations concerning the development of a supportive structure and program content.

4.6 Use of this practice is not intended to protect the EMD or dispatch organization from liability for negligent actions or failure to perform in accordance with established and approved medical practices and protocols.

4.7 The EMD must be certified through either state government processes or by professional medical dispatch standard-setting organizations.

4.7.1 When certification is achieved by recognition of a professional medical dispatch standard-setting organization, it shall clearly demonstrate compliance with all criteria enumerated in this practice and within Practice F 1560 and Practice F 1552.

5. Significance and Use

5.1 This practice is intended to promote the use of trained telecommunicators in the role of emergency medical dispatcher. It defines the basic skills and medical knowledge to permit understanding and resolution of the problems that constitute their daily routine. To use trained telecommunicators fully as functioning members of the emergency medical team, it is deemed necessary to upgrade the telecommunicators' training by the addition of the concept of emergency medical dispatch priorities.

5.2 All agencies or individuals who routinely accept calls for emergency medical assistance from the public and dispatch emergency medical personnel shall have in effect an emergency medical dispatcher program in accordance with this practice. The program shall include medical direction and oversight and an emergency medical dispatch priority reference system.

5.3 The successful use of the EMD concept depends on the medical community's awareness of the "prearrival" state of EMS affairs and their willingness to provide medical direction in dispatch.

5.4 This practice may assist in overcoming some of the misconceptions regarding emergency medical dispatching. These include the uncontrollable nature of the caller's hysteria, lack of time of the dispatcher, potential danger and liability to the EMD, lack of recognition of the benefits of dispatch prearrival instructions, and misconceptions that red lights, siren, and maximal response are always necessary.

5.5 The EMD is the member of the EMS response team with the broadest view of the entire emergency system's current status and capabilities. The EMD has immediate lifesaving capability in converting the caller into an effective first responder. This practice recognizes the EMD's role as including:

5.5.1 Interrogation techniques,

5.5.2 Triage decisions,

5.5.3 Information transmission,

5.5.4 Telephone medical intervention, and

5.5.5 Logistics and resource coordination during the event.

5.6 For the EMD, this practice supersedes any other EMSS standards under which an individual may be qualified, such as Practice F 1031. It is not the role of the EMD to generate a specific diagnosis but rather to elicit accurately a finite body of

information, assign the appropriate response, and to communicate clearly among persons and units involved in the response. The protocols for inquiry, response, and resource coordination are essential and must not be modified based on an individual's possible experiences as a responder.

5.7 As an initial contact with the EMS system, the EMD is subject to questioning of actions as they relate to medical practice. This practice may be used by agencies as a recognized baseline for EMD training, practice, and organization and is intended to supplant de facto standards that exist in some areas. This practice will assist in developing sound EMD programs that will reduce the need and potential for legal action and provide a common set of expectations for performance.

5.8 It will bring more accurate information into the dispatch office by way of appropriate understanding of the medical condition and therefore better interrogation, caller intervention, and decision-making. It allows for preplanned responses, safer responses (fewer units responding with lights and siren), fuel and energy savings (smaller units and fewer units used when possible), and may save advanced lifesupport resources for true advanced life-support emergencies when a tiered-level response is available.

6. System Components

6.1 *Emergency Medical Dispatch Priority Reference System (EMDPRS)*:

6.1.1 This system is a written, reproducible document in a uniform format based on medical and administrative protocols. The emergency medical dispatch priority reference system directs the EMD to complete a full, programmed interrogation. The information from the caller is paired with preset problem groups to determine the appropriate response level. It shall include the following:

6.1.1.1 A set of systematized caller interrogation (key) questions. The key questions must obtain the minimum amount of information necessary to:

6.1.1.1.1 (*a*) Adequately establish the correct level of response,

6.1.1.1.2 (*b*) Establish the need for prearrival instructions, and

6.1.1.1.3 (*c*) Provide responders with adequate patient and incident information.

6.1.2 A set of systematized coding and response protocols that include:

6.1.2.1 Protocols that predetermine vehicle response mode and configuration based on the EMD's evaluation of injury and illness severity as determined through key question interrogation. These protocols must reflect a given EMS systems varied ability to respond, ranging from single-unit squads through multiple-level (tiered) response.

6.1.2.2 An established, medically approved, quantitative coding system for quality assurance/improvement and statistical analysis.

6.1.3 A set of systematic prearrival instructions that include:

6.1.3.1 Chief complaint specific caller and EMD advise, and

6.1.3.2 Scripted prearrival instructions.

6.1.4 In addition to the EMDPRS, an emergency medical dispatch system should include:

6.1.4.1 A mass casualty plan for notification and operation in a disaster situation,

6.1.4.2 A directory of emergency response resources and information resources,

6.1.4.3 A written description of the communications system configuration for the service area, and

6.1.4.4 A record-keeping system, including report forms or a computer data management system to permit evaluation of EMD compliance with the EMDPRS, evaluation of protocol effectiveness, and timeliness of interrogation and dispatch.

7. Functions of Emergency Medical Dispatch

7.1 *Receive and Process Calls for Assistance*—The EMD must receive and record calls for emergency medical assistance from various sources. This function includes the establishment of effective communication with the person requesting assistance, using the EMDPRS to evaluate the patient or situation, provide appropriate prearrival instructions, and select the most appropriate EMS system action in response to each call.

7.2 *Dispatch and Coordinate Appropriate, Available Response Resources*—The EMD must select and dispatch the necessary EMS vehicles and personnel to the scene of an emergency in an appropriate time frame. The EMD functions in coordinating the movements of EMS vehicles en route to the scene, en route to the medical facility, and back to the base of operations. This requires that the EMD have current knowledge of the status of all EMS resources in the dispatch area and the geographic constraints that will affect the EMS response. This also requires that the EMD have dispatch-specific medical training and understands the use of systematized interrogation and response assignment protocols.

7.3 *Provide Information and Prearrival Instructions*:

7.3.1 To the caller, the EMD is the contact with the emergency response agency and must be prepared to provide emergency care instructions to callers waiting for an EMS response. These instructions should enable the caller to prevent or reduce further injury to the victim and to do as much as possible under the circumstances to intervene in any life-threatening situation that exists. These instructions should also include appropriate warnings and safety messages regarding potential dangers that can be reasonably foreseen through correct use of the EMDPRS.

7.3.2 All dispatch life-support-based instructions and information should be given directly from the EMDPRS rather than ad lib. Federal Publication NIH No. 94-3287 on Emergency Medical Dispatching[3] categorizes ad-lib instructions as "telephone aid" which, further defined, "may only ensure that the dispatcher has attempted to provide some sort of care to the patient through the caller but does not ensure that such care is correct, standard, and medically effective or even necessary in the first place. Telephone aid, therefore, is usually considered as inappropriate and an unreliable form of dispatcher-provided medical care."

[3] U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health, National Heart, Lung, and Blood Institute. NIH Publication No. 94-3287, *Emergency Medical Dispatching: Rapid Identification and Treatment of Acute Myocardial Infarction*, July 1994.

7.3.3 To the responding unit(s), the EMD must provide accurate information regarding the patient, conditions at the scene of response, other public safety unit responses, and other information regarding the situation. This information always includes the chief complaint, patient's age, status of consciousness, and status of breathing.

7.4 *Coordinate With Other Agencies and Emergency Services*—The EMD must ensure the existence and maintenance of an effective communication link between and among all public safety services (that is, fire, police, rescue, aeromedical, hazardous materials, utility, and so forth) involved in the EMS response to facilitate mutual aid and to coordinate services including such items as traffic control, fire suppression, and extrication.

7.5 *Necessary Skills of the Emergency Medical Dispatcher*:

7.5.1 Ability to read and write English proficiently and other language or communications skills necessary to function in given area,

7.5.2 Ability to speak clearly and distinctly on radio and telephone,

7.5.3 Ability to remain calm, use reasoned judgment, and communicate effectively in stressful or crisis situations,

7.5.4 Ability to use established interrogation and response assignment protocols,

7.5.5 Ability to provide prearrival instructions appropriate for the emergency situation to both the caller and responders, and

7.5.6 Ability to retain a professional attitude with the caller specifically regarding courtesy and empathy for the situation encountered.

7.5.7 *Inappropriate EMD Activities*:

7.5.7.1 Display of hostility toward or arguing with the caller,

7.5.7.2 Judgment of a situation based on past experience with the caller,

7.5.7.3 Judgment of a situation severity based on previous personal experiences,

7.5.7.4 Unreasonably refusing to dispatch available units in accordance with the approved dispatch protocol,

7.5.7.5 Premature termination of call for assistance, and

7.5.7.6 Failure to act or to dispatch in accordance with protocol.

8. Medical Dispatch Practice

8.1 The role of the EMD is to obtain specific medical information to prioritize accurately each medical response as listed in the emergency medical dispatch priority reference system (EMDPRS). Using this system, the EMD asks key questions about patient condition and incident types, determines the necessity for and gives prearrival instructions, and selects predetermined response levels based on the medical significance of the information obtained. To accomplish this, the EMD must:

8.1.1 Understand the basic philosophy of medical interrogation. Medical dispatch experts have shown that through the use of proper techniques and interrogation protocols significantly more vital information can be obtained. While it may seem the emotional, and at times, hysterical caller's behavior is random and unpredictable, there are some very predictable, generic components present in most cases. Some of these are noted in Appendix X1.

8.1.2 Understand the difference between key questions asked in medical as opposed to trauma cases:

8.1.2.1 Medical case questions are generally based on symptoms such as chest pain, breathing, level of consciousness, and so forth. The caller usually is with the victim or is personally familiar with the patient or their problem.

8.1.2.2 Trauma case questions are generally based on the type of incident rather than specific symptoms, since the caller usually is a third-party observer not directly associated with the patient. The question" How far did the patient fall?," as opposed to, "What are the patient's injuries?," is more appropriate to successful, useful information gathering.

8.1.3 Understand the third-party caller limitation in regards to the difficulty of obtaining useful information when the caller is not with the patient and does not know the patient.

8.1.4 The EMD must be able to apply the following points:

8.1.4.1 The concept of the hysteria threshold and the method of attaining it, for example, repetitive persistence.

8.1.4.2 Until the hysteria threshold is broken, the EMD cannot be in control of a call.

8.1.4.3 The EMD must realize that this threshold exists and can be reached in most all cases so that they do not give up prematurely before obtaining control of the caller.

8.1.4.4 Increases in firmness or continued repetition in questioning or requests may not be successful initially until the threshold (that is different for each caller) is attained. At this point the EMD obtains control.

8.1.4.5 Handling an unpleasant, uncooperative, or hysterical caller by only obtaining the location of the incident and sending the response unit(s) is not acceptable.

8.2 *Prearrival Instructions*:

8.2.1 The objectives of giving prearrival instructions are:

8.2.1.1 To assist the caller in keeping the patient from further injury,

8.2.1.2 To enable the caller to do as much as possible to save a patient in a life-threatening situation, and

8.2.1.3 To transform a hysterical caller into a calmer rescuer who no longer feels helpless.

8.2.2 The following general instructions pertain to most callers:

8.2.2.1 Calm down,

8.2.2.2 Don't move the patient (except in situations that endanger the patient, such as fire, carbon monoxide, and so forth),

8.2.2.3 Observe the area for hazardous situations,

8.2.2.4 Observe what the patient is doing,

8.2.2.5 Identify the incident location by blinking the porch lights, opening garage door, describing house, identifying landmarks, and so forth,

8.2.2.6 Remove obstacles to the responders by locking up pets, sending children to neighbors, unlocking doors, obtaining elevators, opening gates, and so forth,

8.2.2.7 Preserve material or articles relating to the injury, and

8.2.2.8 Gather medications for responders.

8.2.3 General medical instructions commonly given to callers are as follows:

8.2.3.1 Airway management (head tilt/chin lift),

8.2.3.2 Heimlich maneuver,

8.2.3.3 Mouth-to-mouth ventilation,

8.2.3.4 Remove pillows from behind head,

8.2.3.5 CPR,

8.2.3.6 Direct-pressure hemorrhage control, and

8.2.3.7 Cool small burns in cold water.

8.2.4 The requisites of providing these instructions are as follows:

8.2.4.1 The EMD must be trained in basic life-support techniques before the provision of prearrival instructions,

8.2.4.2 Master the use of telephone treatment sequence cards, and

8.2.4.3 Understand the role of the trained versus untrained citizen at the scene of the emergency.

8.3 Roles of the EMD in emergency dispatch centers may differ such as assigned subroles:

8.3.1 *The Interrogator's Role*:

8.3.1.1 Obtain from the calling party the address or location of the emergency (first and most important),

8.3.1.2 Obtain from the calling party, or verify (in the case of E9-1-1 systems) the call-back telephone number at the calling location,

8.3.1.3 Obtain from the calling party the chief complaint,

8.3.1.4 Determine if the caller is with the patient,

8.3.1.5 Obtain the approximate age of the patient,

8.3.1.6 Determine if the patient is conscious (yes, no, or unknown),

8.3.1.7 Determine if the patient is breathing (yes, no, or unknown),

8.3.1.8 Use the EMD priority reference system to:

(1) Ask the systematized caller interrogation questions,

(2) Convey to the "dispatcher" the appropriate response assignment, and

(3) Give the calling party the listed telephone prearrival treatment instructions.

8.3.2 *The Dispatcher's Role*:

8.3.2.1 Alert the appropriate response unit(s) as determined by the interrogator's use of the EMD priority reference system,

8.3.2.2 Relay to responding unit(s):

(1) Location of incident,

(2) Age and sex of patient,

(3) Chief complaint,

(4) Status of conscious,

(5) Status of breathing,

(6) Other pertinent information, and

(7) Number of victims (if applicable).

8.3.3 *Other Functions*:

8.3.3.1 Assist the emergency response unit(s) in finding the address or patient location, or both,

8.3.3.2 Relay information between various units and responding agencies,

8.3.3.3 Monitor and relay information between units, especially those that do not have compatible radio frequencies,

8.3.3.4 Understand the immediate transport concept based on the nearness of the scene to advanced life support or the hospital with regard to the criticality of the patient,

8.3.3.5 Understand how to assist in coordinating a rendezvous, and

8.3.4 Solitary EMDs must perform all functions in an integrated fashion.

9. Organizational Support

9.1 The organizational support for the EMD function must consist minimally of the following:

9.1.1 Provision of EMS physician medical direction regardless of whether the EMD function is carried on in a freestanding EMS communications center or a consolidated public-safety answering point or communications center.

9.1.2 Provision of prospective, concurrent, and retrospective supervision of the EMD function. Such supervision shall consist of:

9.1.2.1 Reoccurring continuing education,

9.1.2.2 A real-time supervisor having medical dispatch experience and expertise,

9.1.2.3 A quality assurance program with random case audit including logging tape reviews on a regular scheduled basis, and

9.1.2.4 A risk management program including problem review.

9.1.3 Provision of written procedures and protocols including:

9.1.3.1 A clear formal chain of command for establishment of policies, procedures, and resolution of grievances related to emergency medical dispatch,

9.1.3.2 Administrative procedures for real-time resource allocation in alternative response assignments,

9.1.3.3 An emergency medical dispatch priority reference system, and

9.1.3.4 Other local resource materials covering specific situations affecting the EMD, such as, disaster plans, hospital resources, specialty facilities, and so forth.

9.1.4 Provision of complete written and recorded documentation of EMD activity and retention of these records.

9.2 Provision of initial EMD training and certification.

9.3 Probationary on-the-job training.

9.4 Provision of continuing professional education and recertification:

9.4.1 Ongoing medical education,

9.4.2 Basic life-support education and recertification,

9.4.3 Skills practicum,

9.4.4 Crisis management, and

9.4.5 Field experience and accompaniment during actual EMS field calls on a "ride-a-long" basis.

9.5 Provision for maintaining and upgrading equipment to meet EMSS needs.

NOTE 1—See Appendix X2.

10. Keywords

10.1 communications; dispatch; emergency medical dispatch

APPENDIXES

(Nonmandatory Information)

X1. MEDICAL INTERROGATION TECHNIQUES

X1.1 *Hysteria Threshold*—Many distraught callers have been shown to have a "threshold of hysteria" that can be overcome and controlled by the practice of "repetitive persistence." This practice will assist with uncooperative caller interrogation and facilitates giving prearrival instructions. The hysteria control threshold frequently may be easily attained, and once established, the caller is completely in control and repeats instructions word perfect.

X1.2 *Repetitive Persistence*—The most successful method of attaining the hysteria control threshold is repetitive persistence. Repetitive persistence is performed by the EMD repeating over and over again, in the exact same wording, a request to calm down or to perform any other act desired. It has been demonstrated that this approach works nearly universally after a limited number of repetitions. Altering the wording of a request, it is believed, appears to the caller's subconscious as indecision or lack of control on the EMD's part and is less effective.

X1.3 *Bring-the-Victim-to-the-Phone Problem*—The EMD must determine the location of the patient relative to the caller at the outset of the call. This will help avoid a possible later interruption of the telephone treatment sequence that may occur when the caller directs others by yelling, "Bring him in here to the phone." The EMD should always ask where the patient is at the beginning of the telephone treatment sequence.

X1.4 *"Nothing's Working" Phenomenon*—The exception to the control obtained once the hysteria threshold is reached occurs when the caller is reminded of the distressed state of the victim at three different stages. First, when the victim is brought to the phone, they are also brought back into the sight of the caller, who is unfortunately reminded of how bad the victim looks. Second, when the EMD asks for verification of absent vital signs (breathing or pulse), the caller is likewise reminded. Third, when the caller is finally dutifully performing CPR or the Heimlich, and the victim is not revived from their initial actions, the caller may state, "nothing's working" and in frustration and despair will sometimes stop trying.

X1.5 Some callers have the misconception that because they are performing the EMD's instructions, the victim should respond or be revived. Callers will sometimes become frustrated and may lose composure when the victim fails to respond to first-aid measures. This results in an event that can interrupt the treatment sequence. The EMD can overcome this problem with appropriate encouragement, repetitive persistence, and by mentioning that, "You are keeping the victim going until the paramedics get there."

X2. MEDICOLEGAL ISSUES OF EMERGENCY MEDICAL DISPATCH

X2.1 The agency and the EMD should understand the importance of EMD performance evaluation.

X2.1.1 Inappropriate performance or procedures, or both, can cause injury or death, or both, to field personnel or civilians.

X2.1.2 Poor work habits can lead to lawsuits against the EMD and the parent department or agency.

X2.1.3 It is important that the EMD remain informed on the correct procedures and protocols and follow them explicitly.

X2.1.4 If procedures appear faulty, the EMD should inform a supervisor for appropriate review.

X2.2 Civil liability for the EMD or his organization can result from the following:

X2.2.1 Caused action or omission by the EMD,

X2.2.2 Failure to supervise on the part of EMD supervisor,

X2.2.3 Failure to observe recognized agency standards by the EMD or the parent organization, and

X2.2.4 Failure to observe recognized community or national practice standards.

X3. TELECOMMUNICATION ISSUES OF EMERGENCY MEDICAL DISPATCH

X3.1 The telecommunicator should be thoroughly familiar with the applications of the following telecommunications equipment, procedures, and Federal Communications Commission (FCC) rules:

X3.1.1 Radio communications control console,

X3.1.2 Telephone equipment and recorders,

X3.1.3 Alert paging equipment and encoders,

X3.1.4 Telephone patch equipment,

X3.1.5 Biotelemetry equipment and MED radio systems,

X3.1.6 Computer equipment, CAD equipment, and record keeping,

X3.1.7 Logging recorder equipment and tape management, and

X3.1.8 Other specialized equipment, generators, tower lighting, and so forth.

X3.2 *Relevant FCC Rules* :

X3.2.1 Only trained and authorized personnel are permitted to operate radio equipment.

X3.2.2 Provisions for access to remote radio sites and base radio equipment shall be maintained.

X3.2.3 The station call sign shall be broadcast in accordance with FCC rules.

X3.2.4 The FCC personnel are authorized to inspect communication records and transmitter equipment at reasonable times with proper identification and notice.

X3.2.5 Transmission of false or deceptive information is prohibited.

X3.2.6 Disclosure of radio messages monitored or intercepted to any uninvolved third party is prohibited.

X3.2.7 Transmission of profane language is prohibited.

X3.2.8 The radio station license shall be displayed at the control points and transmitter location.

X3.2.9 Radio equipment shall be maintained to required technical standards.

X3.2.10 Users shall take reasonable precautions to avoid causing harmful interference, including monitoring before transmission where practical.

X3.3 *Public Safety Telecommunicator-Caller Communication*—The public safety telecommunicator is the contact an emergency caller has with the emergency response system. Prompt and efficient information gathering by the telecommunicator aids in the dispatch of appropriate resources, allows preparation time for responding units, and alerts the telecommunicator to significant events requiring prearrival instructions to the caller. As such, the public safety telecommunicator should:

X3.3.1 Answer telephone calls promptly (within 10 s of the first ring).

X3.3.2 Identify the service to the caller in accordance with the local protocol.

X3.3.3 Speak at a rate of no more than 80 to 100 words per minute.

X3.3.4 Speak directly into the microphone mouthpiece.

X3.3.5 Take control through an authoritative but courteous manner.

X3.3.6 Focus the caller's response to obtain key incident information.

X3.3.7 Elicit and record the following basic information from the person requesting assistance:

X3.3.8 *Location Information (Where)*:

X3.3.8.1 Location of the incident,

X3.3.8.2 Location to which the responding unit(s) should be sent (if different), and

X3.3.8.3 Directions to the incident (if not commonly recognized).

X3.3.9 *Incident Information (What)*:

X3.3.9.1 Primary nature of the event as described by the caller, and

X3.3.9.2 Nature of the response needed.

X3.3.10 *Caller Information (Who)*:

X3.3.10.1 Call back telephone number,

X3.3.10.2 Caller's name when appropriate, and

X3.3.10.3 Victim's name when appropriate.

X3.3.11 *Time/Duration Information (When)*:

X3.3.11.1 Time the incident occurred,

X3.3.11.2 How long incident has been underway (according to caller's perception), and

X3.3.11.3 When call was received.

X3.3.12 Maintain a professional demeanor even when dealing with hostile callers.

X3.3.13 Repeat questions to obtain additional necessary information or to clarify information.

X3.3.14 Record appropriate information in accordance with local protocol.

X3.3.15 Use plain language (not codes) and avoid jargon or slang.

X3.3.16 Allow the caller to hear the dispatch of units, or inform the caller that the dispatch has been or is being made.

X3.3.17 Explain any waiting period such as having to relay or transfer the caller to another agency or individual.

X3.3.18 Inform the caller not to hang up until they are told to do so.

X3.3.19 Show interest in the caller:

X3.3.19.1 Use the caller's name when possible (last name with appellation for adults; first name for children and teenagers).

X3.3.19.2 Calm and continually reassure the caller.

X3.3.20 Direct the caller to perform helpful activities before the arrival of responders.

X3.3.21 Accept responsibility for all emergency calls received (whenever possible the system should provide internal methods for transferring or relaying of information).

X3.3.22 Never leave an assigned work station (console) without relief personnel in place.

X3.4 *Dispatch Procedures:*

X3.4.1 Dispatch the appropriate units in a timely manner upon determination of needed location and incident information.

X3.4.2 Relay to appropriate responding units such items as:

X3.4.2.1 The location of the incident.

X3.4.2.2 Nature of incident/chief complaint.

X3.4.2.3 All important supplemental information including: age and sex of patient(s), status of consciousness, status of breathing, number of patients, and so forth.

X3.4.3 Avoid use of contractions or homonyms in directing responding units.

X3.4.4 Break long messages into short (10-s) segments.

X3.4.5 Confirm receipt of and understanding of information.

X3.4.6 Assist responding units by giving directions to the incident address, hazards and obstacles en route, and accessibility and conditions.

X3.4.7 Update responders on changes in the status of the incident.

X3.4.8 Relay information between other responding units.

X3.4.9 Record information upon receipt, using a standard report and recording format to document call reception, dispatch, scene arrival, scene departure, destination arrival, clear scene, and unit in service times.

X3.4.10 Provide supplemental or incident information as received from other sources.

X3.4.11 Use appropriate signalling methods and techniques based on a thorough knowledge of the communications system.

X3.4.12 Use proper radio communications techniques.

X3.4.13 Perform all activities in compliance with FCC rules and local standard operating procedures and protocols.

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