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## Standard Practice for Emergency Medical Dispatch Management<sup>1</sup>

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### INTRODUCTION

The emergency medical dispatcher (EMD) is the principal link between the public caller requesting emergency medical assistance and the emergency medical service (EMS) resource delivery system. As such, the EMD plays a fundamental role in the ability of the EMS system to respond to a perceived medical emergency. With proper training, program administration, supervision, and medical direction, the EMD can accurately query the caller, select an appropriate method of response, provide pertinent information to responders, and give appropriate aid and direction for patients through the caller. Through careful application and reference to a written, medically approved, emergency medical dispatch protocol, sound decisions concerning EMS responses can be made in a safe, reproducible, and non-arbitrary manner. These benefits are realized by EMS systems when appropriate implementation, sound medical management, and quality assurance/quality improvement (QA/QI) at dispatch are provided within the EMD/EMS system. This practice assists in establishing these management and administrative standards.

### 1. Scope

1.1 This practice covers the function of the emergency medical dispatcher (EMD). This function is the prompt and accurate processing of calls for emergency medical assistance. The training and practice through the use of a written or automated medical dispatch protocol is not sufficient in itself to ensure continued medically correct functioning of the EMD. Their dispatch-specific medical training and focal role in EMS has developed to such a complexity that only through a correctly structured and appropriately managed quality assurance environment can the benefits of their practice be fully realized. The philosophies of emergency medical dispatch have established new duties to which the emergency medical dispatch agency must respond. It is important that their quality assurance/quality improvement (QA/QI) activities, including initial hiring, orientation, training and certification, continuing dispatch education, recertification, and performance evaluation be given appropriate managerial attention to help ensure the ongoing safety in the performance of the EMD. This practice establishes functional guidelines for these managerial, administrative and supervisory functions.

<sup>1</sup> 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.

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1.2 The scope of this practice includes:

1.2.1 The entry level selection criteria for hiring emergency medical dispatchers;

1.2.2 The orientation of new emergency medical dispatchers;

1.2.3 Development of QA/QI mechanisms, management strategies and organizational structures for use within a comprehensive emergency medical dispatch system;

1.2.4 Performance evaluation as a component of a comprehensive and ongoing quality assurance and risk management program for an emergency medical dispatch system;

1.2.5 Development and provision of continuing dispatch education activities for the emergency medical dispatcher;

1.2.6 Requirements for initial certification and recertification of the emergency medical dispatcher;

1.2.7 Provision for comparative analysis between different EMD program approaches available to the EMS community that conform to established EMD practice standards prior to implementation of an emergency medical dispatch program; and

1.2.8 Guidelines for implementation of an emergency medical dispatch program.

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*:<sup>2</sup>

F1258 Practice for Emergency Medical Dispatch

F1552 Practice for Training Instructor Qualification and Certification Eligibility of Emergency Medical Dispatchers

## 3. Terminology

### 3.1 *Definitions of Terms Specific to This Standard*:

3.1.1 *case review template*—a structured performance evaluation document containing all necessary input and output actions required of dispatchers that parallels the EMDs' on-line protocols, policies, and procedures related to call-taking and processing. It contains check-off lists and compliance scoring mechanisms that objectively rate the EMDs' performance on a single call.

3.1.2 *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.

3.1.3 *emergency medical dispatch agency*—any organization or a combination of organizations working cooperatively, that routinely accepts calls for emergency medical assistance and facilitates the dispatch of prehospital emergency medical resources/personnel and provides medically oriented pre-arrival instructions pursuant to such requests.

3.1.4 *performance evaluation*—the documented, objective, quantitative measure of an individual emergency medical dispatcher's performance based upon compliance with departmental protocols, policies and procedures.

3.1.5 *pre-arrival instructions*—telephone-rendered, medically approved written instructions provided by trained EMDs through callers which help to provide aid to the victim and control of the situation prior to arrival of prehospital personnel.

3.1.6 *quality assurance/quality improvement (QA/QI)*—the comprehensive program of prospectively setting standards, concurrently monitoring the performance of clinical, operational and personnel components, and retrospectively improving these components in the emergency medical dispatch agency when compared with these standards.

3.1.7 *risk management*—a sub-component of the quality assurance/quality improvement program designed to: identify problematic situations and assist EMS medical directors, dispatch supervisors, and EMDs in modifying practice behaviors found to be deficient by quality assurance procedures; protect the public against incompetent practitioners; and modify structural, resource, and protocol deficiencies that may exist in the emergency medical dispatch system.

## 4. Summary of Practice

4.1 A comprehensive plan for managing the quality of care in an emergency medical dispatch system must include careful

planning, EMD program selection, proper system implementation, employee selection, training, and certification, QA/QI, performance evaluation, continuing dispatch education, recertification, and risk management activities. These functions must be designed and implemented to assist the medical director, dispatch supervisor, and emergency medical dispatcher in monitoring and modifying EMD performance found deficient by QA/QI to protect the public against incompetent practitioners, as well as modify organizational structure, resource, or protocol deficiencies that exist in the emergency medical dispatch system.

4.1.1 *Entry Level Selection*—The selection and evaluation of new dispatchers must include clearly written objective standards to be adopted for qualifying candidates, interviewing applicants and pre-employment aptitude and skill testing pursuant to the hiring of dispatchers.

4.1.2 *Orientation*—A pre-planned process of events focusing on the development and acclimation of an employee who will function within the organization's standards, practices, policies, and procedures.

4.1.3 *Quality Assurance/Quality Improvement*—Within a physician medically directed emergency medical dispatch system, the development and implementation of employee performance thresholds, concurrent evaluation of compliance to these thresholds through on-line supervision, retrospective evaluation of non-edited logged recordings of requests for emergency service measuring compliance with policy, practice, and procedure to validate that the practices are appropriate, and to correct the employee and practice if they are found to be deficient.

4.1.4 *Performance Evaluation*—Each EMD in an emergency medical dispatch agency must regularly and routinely be evaluated with respect to his or her adherence to policy, protocol, and procedure through the QA/QI process. This determines conformance to these elements and measures how this performance affects the efficiency and effectiveness of the emergency medical dispatch agency. The evaluation must be quantitative and qualitative.

4.1.5 *Continuing Education*—Each emergency medical dispatch agency must provide for the development and implementation of a continuing dispatch education program for the benefit of that agency's EMD personnel. This program must provide the EMD with applicable educational topics designed to enhance their general knowledge and skill in the philosophy and application of the EMD program used within the emergency medical dispatch agency.

4.1.6 *Risk Management*—A written practice and procedure shall be established for each agency that provides guidelines for physician medical directors, EMS system administrators, agency supervisors, and/or QA/QI personnel to follow when an EMD is identified as failing to meet or follow established protocols. These may be acts of omission or commission identified through concurrent or retrospective review. This practice and procedure shall provide guidelines for proper investigative criteria relative to the medical or administrative nature of the perceived infraction, and the proper progressive disciplinary procedure to be followed in order to provide the EMD due process.

<sup>2</sup> For referenced ASTM standards, visit the ASTM website, [www.astm.org](http://www.astm.org), or contact ASTM Customer Service at [service@astm.org](mailto:service@astm.org). For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

4.1.7 *Certification, Recertification*—All EMDs working in a medical dispatch agency shall be certified as competent in the use of the medically approved emergency medical dispatch priority reference system (EMDPRS) used within the medical dispatch center. Initial certification and recertification standards shall be established by each certifying entity associated with their EMDPRS protocols in accordance with ASTM-EMD standards that validate the individual EMD's knowledge and competency in their use.

4.1.8 *Reciprocal Certification*—Reciprocal certification shall be established between certifying agencies and organizations having programs that meet the standards contained in this practice.

4.1.9 *Registration and Maintenance of Certification Records*—All certifying entities, agencies, or organizations shall maintain records for all certified individuals and shall provide documents and reports regarding testing and certification status as required by using agencies, states, or governmental units. All records shall be maintained for a minimum period of ten years from initial certification, recertification or testing of the individual.

4.1.10 *Revocation of Certification*—This practice shall set forth guidelines for assessing grounds for a possible suspension or termination of certification when questionable situations arise in EMD conduct or performance.

4.1.11 *Program Selection and Implementation*—This is intended to assist the EMS administrator in the selection of the program that best suits the dispatch agency's needs from a medical, legal, and operational perspective and provide for comparative analysis between different EMD program approaches available to the EMS community that conform to established EMD practice standards.

4.1.12 *Physician Medical Director*—Each emergency medical dispatch agency shall have a physician medical director, who shall assist in evaluation and review of the EMD program under consideration. The physician medical director shall approve the selected EMD program written protocol. The physician shall be responsible for all medical aspects of the EMD program. Additional responsibilities include the medical oversight of the EMD training and certification program, continuing education requirements, recertification eligibility, QA/QI and risk management functions. These responsibilities include recommendations regarding the certification and employment eligibility of individuals found to be unsafe practitioners through employee evaluation and disciplinary due process.

## 5. Significance and Use

5.1 The emergency medical dispatcher should be a specially trained telecommunicator with specific emergency medical knowledge. Many of these personnel still perform in this role without the benefits of dispatch specific medical training and medically sound protocols. The majority perform their duties without appropriate medical management provided through a structured quality assurance/improvement environment. Training only prepares a new EMD for correct use of the EMDPRS. It cannot ensure that the EMDPRS is used as intended. Since the EMD is clearly defined as a pre-hospital medical

professional, it is necessary to establish sound medical management processes through a multi-component QA/QI program administered by the EMD's agency in conjunction with the physician medical director. Prompt, correct, and appropriate patient care can be enhanced through the use of a standardized approach to quality assurance, especially the component of EMD performance assessment. This practice is intended for use by agencies, organizations, and jurisdictions having the responsibility for providing such services and assurances to the public through the correct management of the nation's emergency medical dispatchers.

## 6. EMD Entry Level Selection Criteria

6.1 Each emergency medical dispatch agency shall adopt a formal written policy delineating the selection procedures for individuals to be employed as emergency medical dispatchers. It must address the ability to:

6.1.1 Read and write at a high school graduate or GED level;

6.1.2 Perform those clerical skills as delineated by the employing agency;

6.1.3 Perform verbal skills in a clear and understandable manner, in the required language or languages established as necessary to that emergency medical dispatch agency;

6.1.4 Perform alphanumeric transcription skills necessary to correctly record addresses, locations, and telephone numbers; and

6.1.5 Demonstrate competency in basic telecommunications skills as required by the employing or training agency.

6.2 Selection criteria should also include the following:

6.2.1 A clear attribute of helpfulness and compassion toward the sick or injured patient and the caller advocate;

6.2.2 The ability to clearly guide callers in crisis through application of necessary interrogation procedures and the provision of telephone pre-arrival instructions;

6.2.3 The ability to learn and master the skills, philosophy and knowledge required to successfully complete the training process;

6.2.4 The ability to efficiently and effectively organize multiple tasks and complicated situations and activities;

6.2.5 The ability to handle the levels of emotional stress present in caller/patient crisis intervention, death and dying situations, call prioritization and triage, and multiple tasking;

6.2.6 The ability to function within the team framework of public safety and EMS systems; and

6.2.7 The ability to elicit and assimilate caller information and then to prioritize and appropriately consolidate and summarize this information in a format used to inform and direct public safety responders.

## 7. Orientation Guidelines for Emergency Medical Dispatchers

7.1 When an individual has successfully completed the initial EMD training and is employed by an emergency medical dispatch agency, a comprehensive orientation program must be in place to initiate this individual to the intense and demanding conditions that exist in dispatch centers. It must include:

7.1.1 An orientation manual for the new EMD;

7.1.2 A formal orientation for the new EMD in the communications and dispatch operation as well as the employing agency as a whole including all relevant policies, practices, and procedures.

7.1.3 Orientation with a one-on-one preceptor concurrent with the employee's probationary period;

7.1.4 Written evaluation of compliance through the agency's quality assessment practice as defined in this practice; and

7.1.5 Written evaluation of performance during orientation and frequent feedback and critique from those individuals responsible for training and evaluation of the new emergency medical dispatcher.

## 8. Performance Evaluation

8.1 The EMD must function using a medically approved EMDPRS to establish the template for performance and protocol compliance evaluation. The ongoing performance appraisal must evaluate the EMD's ability to follow and comply with the established agency policies and procedures.

8.2 Established performance criteria should be shared with new employees and measured on a regular basis. These should include evaluation of performance in:

8.2.1 Conformance to established policies of the employing agency, and

8.2.2 Compliance with the EMDPRS of the employing agency.

8.3 Performance appraisal of the EMD through case review should be accomplished by the following:

8.3.1 Multiple cases that an individual manages must be reviewed on a regular basis.

8.3.2 The selection of cases to be reviewed should provide a perspective of the individual's performance over the entire spectrum of call-types received. The review process should, as a minimum, review 7 to 10 % of calls received by the emergency medical dispatch agency.

8.3.3 Individuals performing dispatch case reviews must have an emergency medical background (preferably experienced at an ALS level) and be specially trained in the process of EMD case review.

8.3.4 These reviewers shall use a standardized *case review template* form that objectively outlines and quantifies all parameters of EMDPRS compliance by which the EMD will be evaluated.

8.3.5 Records must be kept showing at a minimum the following areas of compliance:

8.3.5.1 Compliance to asking the systematized interrogation questions. These should be subdivided to show different areas of interrogation in the EMDPRS.

8.3.5.2 Compliance to providing the systematized pre-arrival instructions (when possible and appropriate to do so); the record should show separate compliance for each type of pre-arrival instructions found within the EMDPRS.

8.3.5.3 Compliance to correctly selecting the dispatch response classification code.

8.3.6 Records should be kept showing cumulative compliance scores in the listed areas for the following groups:

8.3.6.1 Individual compliance averages;

8.3.6.2 Shift compliance averages, and

8.3.6.3 Emergency medical dispatch agency compliance averages.

8.3.7 Group compliance averages should be periodically purged of older records allowing the EMD to reasonably improve scores over time. All records should be maintained and archived.

8.3.8 The process of individual case review and the findings and recommendations should be managed by a specially trained diversified group of EMS and dispatch agency personnel. Participants in the management of the case review process should represent a cross-section of those individuals within the system affected by the emergency medical dispatch program. These should include, but not be limited to, line dispatchers, managers, administrators, medical control physicians or their representatives, or both, field personnel, and ancillary public safety groups such as 9-1-1, primary and secondary public safety answering points (PSAPs), that operate within the structure of an organized medical dispatch case review committee.

8.3.9 The specific policies and procedures to be utilized for performance appraisal activity must be carefully explained to the EMDs whose performance will be measured and must be objectively and impartially administered.

8.3.10 Regular feedback must be provided to the EMDs based on the findings of their performance appraisal.

8.3.11 The goal of the case review process is to enhance the performance of the EMD. This feedback should include both recognition of exemplary performance as well as behavior requiring remediation. This feedback must be provided in written form and maintained in the employee's records.

8.3.12 EMDs who consistently provide quality care should be recognized. Commendations, awards, advancements, media exposure, and other forms of positive reinforcement are important elements of performance appraisal.

8.3.13 The emphasis of any remedial activity should focus on re-training and modification of unacceptable practice patterns rather than on sanctions.

8.4 Field-to-dispatch feedback mechanisms should be established to monitor, inquire about and document issues relative to the application of medical dispatch practices witnessed in the total system.

8.4.1 Standardized forms should be used to collect, record, and report this information.

8.4.2 All reports generated should be carefully tracked through the system, investigated and evaluated, and written "feedback" provided to the initiator. These reports shall be maintained.

8.4.3 All reports should avoid any and all accusatory "non-colleagual" tones.

## 9. EMD Certification

9.1 To become certified, an EMD shall successfully complete an EMD course that meets the requirements of this practice and the curriculum standard guidelines contained in Practice **F1552**; and

9.2 Successfully pass a written or automated examination that evaluates the knowledge, comprehension and application