SPECIAL SECTION

TELECOMMUNICATIONS

QUALITY ASSURANCE: A PRIORITY FOR MEDICAL DISPATCH

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Memory is a fascinating and wonderful thing. It is a virtual necessity in nearly everything we do. Many people's professions depend on a reliable memory. For actors, gamblers, and politicians, a good memory is a must.

Some things, however, seem just too important, or dangerous, to leave to memory alone. Would it do for NASA countdown engineers to have to "remember" all of the checks on the space shuttle that are necessary to ensure a safe and uneventful liftoff? Or, for a surgeon to "estimate" the number of sponges used and retrieved during a major operation? My guess is no. The "think system," first introduced by Professor Harold Hill in Meredith Wilson's *The Music Man*, may work for teaching kids in a brass band how to play without lessons, but experience shows it works poorly for dispatchers dealing with call after call from people in crisis. How can we assure excellence in these important "high-stakes" occupations, where mediocrity can cost dearly?

Unfortunately, many program trainers, dispatch-center administrators, and, to a lesser degree, medical-control physicians still conceptualize medical priority dispatch as an event. It is not an event; it's a process. While the "event" is initial training and protocol implementation, the "process" is found within a multifaceted, comprehensive quality-assurance program. The words *quality assurance*, unfortunately, are often considered to be two of the most boring words in EMS. It's hard to count or tout the number of "lives saved" in the classroom or by a committee. Far from the wail of the siren or the urgent ring of the telephone, QA languishes in disuse in most systems. It is often approached with the enthusiasm of the guy who has to clean the floor in the theater after a Saturday matinee.

NECESSITY FOR QA IN DISPATCH

In 1988, the National Association of EMS Physicians issued the most important statement to date regarding medical dispatch in this half of the decade.[2] It represents the first official "standard of care" document from exactly the people who should have a position—the medical directors of North America. For example, the NAEMSP Consensus Document on Emergency Medical Dispatch states in its section on pre-arrival instructions:

> Pre-arrival instructions are a mandatory function of the EMD. In essence, the EMD is the "first" first responder and through immediate action can effectively eliminate the deadly "four minute" plus gap at the beginning of the response. Standard telephone instructions by *trained* EMDs are safe to give and in many instances a moral necessity.[2]

This "standard" setter establishes the key components of EMD and strongly recommends their use. The importance of quality assurance is also uncategorically stated as follows:

> Quality assurance, risk management, and medical control are an absolute necessity for the ongoing well-being of any EMS system. NAEMSP believes that routine medical review of the activities of EMDs and medical dispatch centers is vital to the health of the EMS system in general. Dispatch review committees are a significant step toward providing this assurance.[2]

As the current joke making the rounds in EMD goes, *"What does a lax medical dispatch center director call the NAEMSP Consensus Document?"* Answer: *"Plaintiff's exhibit #1."*

Maybe you're convinced and respond, "Doc, you're preaching to the choir." But what exactly does one do to assure patient-care safety and low liability in our EMD centers? Unfortunately, QA suffers as a process because of a lack of a specific, clear definition that is understandable by the average EMS person, supervisor, or employer. Just as most sermons about getting to heaven often fail to include the road map, we have likewise not been provided with an adequate picture of the process.

While the final verdict isn't in yet, as EMD is just entering its early adolescence, the following are a number of key specific elements that have been identified to date.

EMPLOYEE SELECTION AND EVALUATION

This area has recently been addressed very expertly by others in EMS management. With the permission of EMS quality-assurance expert Christine Zalar of Fitch & Associates, I have reproduced comments from her recent article, "Re-Examining Quality Assurance," with occasional dispatch clarification (in parentheses) added:[3]

> The selection and evaluation of new employees is one aspect of QA that is frequently overlooked. Clear, objective standards should be adopted (in writing) for use in employee selection. (Previous) training and certification minimums should be established (National Academy of EMD, state, regional, and BLS certifications, etc.) and applicants should produce documentation. We also recommend that applicants be required to pass a brief written examination prepared by

a physician (or person trained and experienced in medical dispatching), which won't necessarily identify the outstanding candidates, but would help eliminate people who cannot meet minimum standards. Another recommendation is an in-depth, medically (dispatch) specific interview by a small group of people with strong medical (dispatch) backgrounds; the panel shouldn't be exclusively management.

In the selection of employees, one of the most commonly overlooked steps is checking the employee's references and past employers. Inquire about the candidate's strengths and weakness, quality and quantity of work performed, and work-attendance history.

ORIENTATION PROGRAMS

Again, quoting from Zalar:

> Orientation programs should be used to evaluate a new employee under intense and demanding "real life" field (dispatch center) conditions. An orientation manual should be comprehensive enough to serve as a resource text for the new employee. While the emphasis will be on operational matters, it should also reflect the medical (dispatch) philosophy of the service. A manual of the clinical (dispatch priority and pre-arrival instruction) protocols should be provided, offering a clear understanding of the standards for prehospital (dispatch-specific) medical care in the community.

The goal of the orientation program is to acclimate the employee with the overall operation of the service. The program should provide the new employee one-on-one preceptorship by an experienced, trained member of the service. Often, this preceptor is a training officer (and/or quality-assurance coordinator) or clinical instructor. It is important to note that orientation is a preplanned process of events focusing on the development of an employee who can function within the organization's standards and philosophies. The process takes time, and is a gradual progression from one-on-one preceptorship to checkpoints for evaluation of performance. The orientation program should be concurrent with the employee's probationary period.

Orientation is more than *showing them the ropes*. It is a step-by-step program that establishes job and organizational expectations, and monitors performance and results.[3]

INITIAL TRAINING

Initial training must adhere to current standards, such as those established by training programs currently recognized as leaders in this area. Salt Lake City and County, the states of Utah and California, and the National Academy of EMD programs, as well as those accurately derived from them, are examples. These courses range from 24 to 40 hours, exclusive of BLS training prerequisites. If at least a full eight-hour day is not spent covering the 32 dispatch priority card concepts, you do not have an acceptable initial training program. Teaching only basic telecommunications and/or pre-arrival instructions, as some have tried, does not constitute complete EMD training. This is a fairly common error, which often occurs when programs are "modified" by those without ALS-level medical background. On the other hand, a "modified-to-fit-dispatch" EMT course is also not appropriate per se for previously published reasons.[4] As the old professor once said, "If you want an apple, don't buy (or, in this case, train) an orange just because it's round."

CONTINUING DISPATCH EDUCATION (CDE)

Just as with QA, training is also a process, not an event. A sound, *ongoing* program of continuing dispatcher education is essential to maintain the strength of newly acquired wisdom. Without doing your monthly educational "push-ups," the body of EMD gets slowly weaker.

CDE, at a minimum, is one hour per month, and includes review of dispatch priorities, practical "mock" scenario drills, BLS-level techniques, appropriate reading, and even occasional field experience with EMS crews.[5] As professional medical personnel, EMDs should have access to and be directed to routinely read professional and trade journals representing the fields of both telecommunications and emergency medical services. Dispatchers, like EMTs and paramedics, should be allowed to attend remote conferences and seminars that, in essence, bring new life through cross-pollination into local centers.

DATA GENERATION

Creation of a formal data base for monitoring dispatch decision-making is an important part of QA. The effects of dispatch on field operations can be assessed, as can dispatchers' adherence to protocol. Currently, a large urban system on the West Coast has been able to monitor dispatch adherence to protocol by following a significant percentage drop of BLS non-red-light-and-siren assignments (ALPHA code tier).[6] This has previously been identified as occurring in other systems implementing a medical priority dispatch system (MPDS) and was predicted to occur. A myriad of other benefits come from a good dispatch data base. In addition, the information and trends seen in such data aid in selecting the areas of major concern in case-review activities.

MEDICAL DISPATCH CASE REVIEW

Each dispatch center with an MPDS should have in place a ***medical dispatch case review committee*** that evaluates cases on a regular basis (monthly at minimum) and consists of dispatch, EMS, and medical-control personnel who understand the process and the problems.[7] This review will provide both positive and negative feedback to dispatchers. Meetings last one to 1½ hours, and problematic, good, and random cases are listened to and critiqued using a model dispatch template. Each reviewer has a copy of the 32 dispatch protocol cards and eight treatment-sequence cards. Calls are evaluated as the reviewer follows the template format to complete the formal steps of interrogation and airing of pertinent information to the responding unit(s). By being sure to include the "good" cases, you can formalize the time-proven method of positive reinforcement by more frequently "catching them doing it right."

The process also includes the use of a ***dispatch feedback report*** that is submitted by all dispatch-related parties, including EMS field personnel (public and private), law enforcement, hospitals, and dispatchers themselves.[7] This *polite* written request for clarification of "what happened" at dispatch is researched by the dispatchers, supervisors, and/or, in interesting or judgment-call cases, the Dispatch Review Committee formally. This helps organize the process of case review.

MEDICAL CONTROL IN DISPATCH

The medical director should have a direct interest and involvement in the activities of medical dispatch. NAEMSP's "General Statement" and "Rationale" sections of its Consensus Document contain the following phrases:

> Medical control for the EMD and the dispatch center is also part of the EMS physician's responsibilities. The involvement of EMS physicians in the world of dispatch is relatively new, but unquestionably essential.[2]

Obviously, those medically responsible for medical dispatch centers should learn more about and participate in the activities of dispatch quality assurance. Taking a credible EMD course is a good start. Often, EMS physicians are asked to "approve" or even "modify" medical dispatch protocols before they have become "dispatch literate."

The importance of the medical presence in some dispatch centers has led to the creation of the "quality-assurance para-

Table I: Guidelines for risk management in a medical-dispatch quality-assurance program.

A comprehensive program for managing the quality of care includes not only quality assessment, but quality-*assurance* risk-management activities, designed to assist medical directors, dispatch supervisors, and emergency medical dispatchers in modifying practice behavior found to be deficient by quality assessment, to protect the public against incompetent practitioners, as well as to modify structural, resource, or protocol deficiencies that may exist in the medical dispatch system.

These 10 guidelines should be utilized in any medical dispatch system, whether private or governmentally operated, and whether conducted by medical directors, administrators, supervisors, peers, or governmental authorizing agencies:

1. *The general policies and processes to be utilized in any quality-assurance activity should be codeveloped and concurred with by the professional EMDs, whose performance will be scrutinized and should be objectively and impartially administered.* Such initial involvement with and commitment to ongoing objectivity is critical to ensuring continued participation and cooperation with the program.

2. *Any remedial quality-assurance activity related to an individual EMD should be triggered by concern for that individual's overall practice, rather than by deviation from specified criteria in single cases.* Because of the inherent variability of patients and incidents, judgment as to the competence of specific dispatchers should be based on an assessment of their performance with a number of patients and not on the examination of single, isolated cases, except in extraordinary circumstances.

3. *The institution of any remedial activity should be preceded by discussion with the EMD involved.* There should be ample opportunity for the EMD to explain observed deviations from accepted practice patterns to supervisors, professional reviewers, and/or the medical director, before any remedial or corrective action is decided on.

4. *Emphasis should be placed on education and modification of unacceptable practice patterns, rather than on sanctions.* The initial thrust of any quality-assurance activity should be toward helping the EMD correct deficiencies in knowledge, skills, or technique, with practice restrictions or disciplinary action considered only for those not responsive to remedial activities.

5. *The quality-assurance system should make available the appropriate educational resources needed to effect desired practice modifications.* Consistent with the emphasis on assistance, rather than punitive activity, the medical-dispatch quality-assurance program should have the capability of offering or directing the EMD to the educational activities needed to correct deficiencies, whether they be peer consultation, continuing education, retraining or self-learning, and self-assessment programs.

6. *Feedback mechanisms should be established to monitor and document needed changes in practice patterns.* Whether conducted under the same auspices or separately, linkages between quality-assurance system and a quality-assessment activity should allow for assessment of the effectiveness of any remedial activities instituted by or for an EMD.

7. *Restrictions or disciplinary actions should be imposed on those dispatchers not responsive to remedial activities, whenever the EMD's supervisor and/or appropriate medical control deem such action necessary to protect the public.* Depending on the severity of the deficiency, such restrictions may include loss of certification.

8. *The imposition of restrictions or discipline should be timely and consistent with due process.* Before a restriction or disciplinary action is imposed, the EMD affected should have full understanding of the basis for the actions, ample opportunity to request reconsideration and to submit any documentation relevant to the request, and the right to meet with those considering its imposition. However, in cases where those considering the imposition of restrictions or discipline deem the dispatcher to pose an imminent hazard to the health of patients, personnel, or the public at large, such restrictions or disciplinary actions may be imposed immediately. In such instances, the due-process rights noted above should be provided and documented on an expedited basis.

9. *Quality-assurance systems for medical dispatch should be structured and operated so as to ensure immunity for those conducting or applying such systems who are acting in good faith.* To ensure the active, unfettered participation of all parties in the review process, all case reviews and the documents and opinions generated by them should be structured, if possible, for protection from subpoena and legal discovery. This incident-review protection is common in most hospital and medical review environments. Reviewing state and federal legislation, as well as pertinent court decisions, as the basis for developing comprehensive guidelines on immunity in review activities is essential.

10. *To the fullest degree possible, quality-assurance systems should be structured to recognize care of high quality, as well as correcting instances of deficient practice.* The vast majority of practicing, professionally trained EMDs provide care of high quality. Quality-assurance systems should explore methods to identify and recognize those treatment methodologies, procedures, and protocols that consistently contribute to improved patient outcomes, system efficiency, and safety. Information on such results should be communicated to the medical-control community and dispatch-agency administrations. EMDs providing high- and consistent-quality care should be rewarded. Commendations, awards, advancements, and other forms of positive reinforcements are important facets of quality assurance.

medic" position. This individual becomes the focus for ongoing quality-assurance activities and often functions as the initial medical priorities "EMD" trainer, CDE leader, and case-review committee chairman. In essence, the QA/PM is the extension of the medical director for assuring medical control in dispatch.

Anyone at all familiar with instituting an MPDS learns quickly just what a detailed and intricate process has been started, and that the development of the MPDS literally touches every significant aspect of the EMS agency it newly resides in. To foster orderly, careful, and medically sound implementation and ongoing enhancement, including rational localization, a medical priority dispatch system steering committee is required. This committee includes agency administration, medical control, and dispatch supervisory personnel, as well as others significantly affected by dispatch activities. These additional parties include private ambulance representatives in fire-based EMS systems and related municipal departments, such as law enforcement and 911. This group should meet regularly, keep formal minutes, and, most importantly, be responsible for deciding and formalizing all enhancements and localizations to the MPDS.

CERTIFICATION

NAEMSP has set a tone for what has become an important part in the evolution of EMD in North America, the governmental authorization or certification of EMDs:

> Certification and authorization by government entities are the next logical steps to assuring that the EMD is a well-trained EMS professional. An ever-increasing number of states, regions, counties, and municipalities certify or require standard training for EMDs. NAEMSP stands behind this effort as not only laudable but also as a future prerequisite to practice by medical dispatchers.[2]

The following is excerpted from the recently instituted Pinellas County (Florida) EMD Rules (specific references have been made generic):

> Dispatchers serving medical providers *are required to be certified* as emergency medical dispatchers (EMDs). The medical director shall develop, establish, or approve an emergency medical dispatch certification or recer-

tification program for the (government agency).[8]

It is important to include special provisions for certification and recertification for the handicapped in any programs or administrative rules established. For example, the Utah rules state:

> These rules shall not preclude any physically handicapped individual from certifying or recertifying who can demonstrate to the medical director, or his/her designate, proficiency in verbally describing the treatment methods outlined in the (government agency) approved EMD course to a caller.[5,9]

This governmental formalization process is just as important for medical dispatch today as it was 15–20 years ago, when that process crystallized for EMTs and paramedics.

RECERTIFICATION

Recertification allows the agency, supervisor, and medical director to formally assure continued adherence to minimum standards by the EMD through documentation of objective criteria in the form of hours and types of CDE, practical examinations, and written examinations. It also establishes processes for decertifying individuals who cannot meet such minimal criteria. The following is also excerpted from Pinellas County (FL) rules and standards[8] (specific references have been made generic):

> Recertification is required every two years to maintain (government agency) certification. This period and process may be modified by the medical director (or government agency).

RISK MANAGEMENT

The attitudinal philosophy of risk management within a quality-assurance program (found in *Table I*) is derived from the Guidelines for Quality Assurance from the Council on Medical Service of the American Medical Association.[1] It has been modified to fit the medical-dispatch situation and deals mainly with risk-management–type issues.

REFUSAL, SUSPENSION, OR REVOCATION OF CERTIFICATION

While the goal of quality assurance is always to correct deficiencies and encourage excellence, not just adherence to minimum standards, there comes a time when, for EMDs failing to meet standards or those involved in activities not becoming a professional, terminal action is required. From the decertification standpoint, the following is quite specific and should be a part of any formal QA process (again excerpted out of the Pinellas County[8] and Utah standards,[5,9] with specific references made generic):

> The medical director (or governmental agency) may refuse to issue a certification or recertification, or suspend or revoke a certification for any of the following causes:
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> 1. Habitual or excessive use or addiction to narcotics or dangerous drugs, or conviction of any offense relating to the use, sale, possession, or transportation of narcotics or dangerous drugs.
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> 2. Habitual abuse of alcohol beverages or being under the influence of alcoholic beverages while on call or on duty as an emergency medical dispatcher, or conviction of driving under the influence of alcohol while driving a vehicle.
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> 3. Fraud or deceit in applying for or obtaining a certification, or fraud, deceit, incompetence, patient abuse, theft, or dishonesty in the performance of duties and practice as an emergency medical dispatcher.
>
> 4. Involvement in the unauthorized use or removal of narcotics, drugs, supplies, or equipment from any emergency vehicle or health-care facility.
>
> 5. Performing procedures or skills beyond the level of certification or not allowed by these rules, or violation of laws pertaining to medical practice and drugs.
>
> 6. Conviction of a felony or a crime involving moral turpitude, or the entering of a plea

continued on page 76

QUALITY ASSURANCE *from page 61* —

> of guilty or the finding of guilt by a jury or court of commission of a felony or a crime involving moral turpitude.
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> 7. Mental incompetence as determined by a court of competent jurisdiction.
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> 8. Demonstrated inabilities and failure to perform adequate patient care through approved pre-arrival instructions.
>
> 9. For good cause, including conduct that is unethical, immoral, or dishonorable.

CONCLUSION

Quality assurance needs to be one of the prime activities in the 1990s for developing and maintaining excellence in medical dispatch. As quality assurance expert Jim Dernocoeur once stated, "Performance *reviewed* is performance *improved*." Certainly, medical dispatching has proved to be no exception to this wise corollary.

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Chapter 12

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