PROFESSIONAL MEDICAL DIRECTION

It's *not* too much to ask

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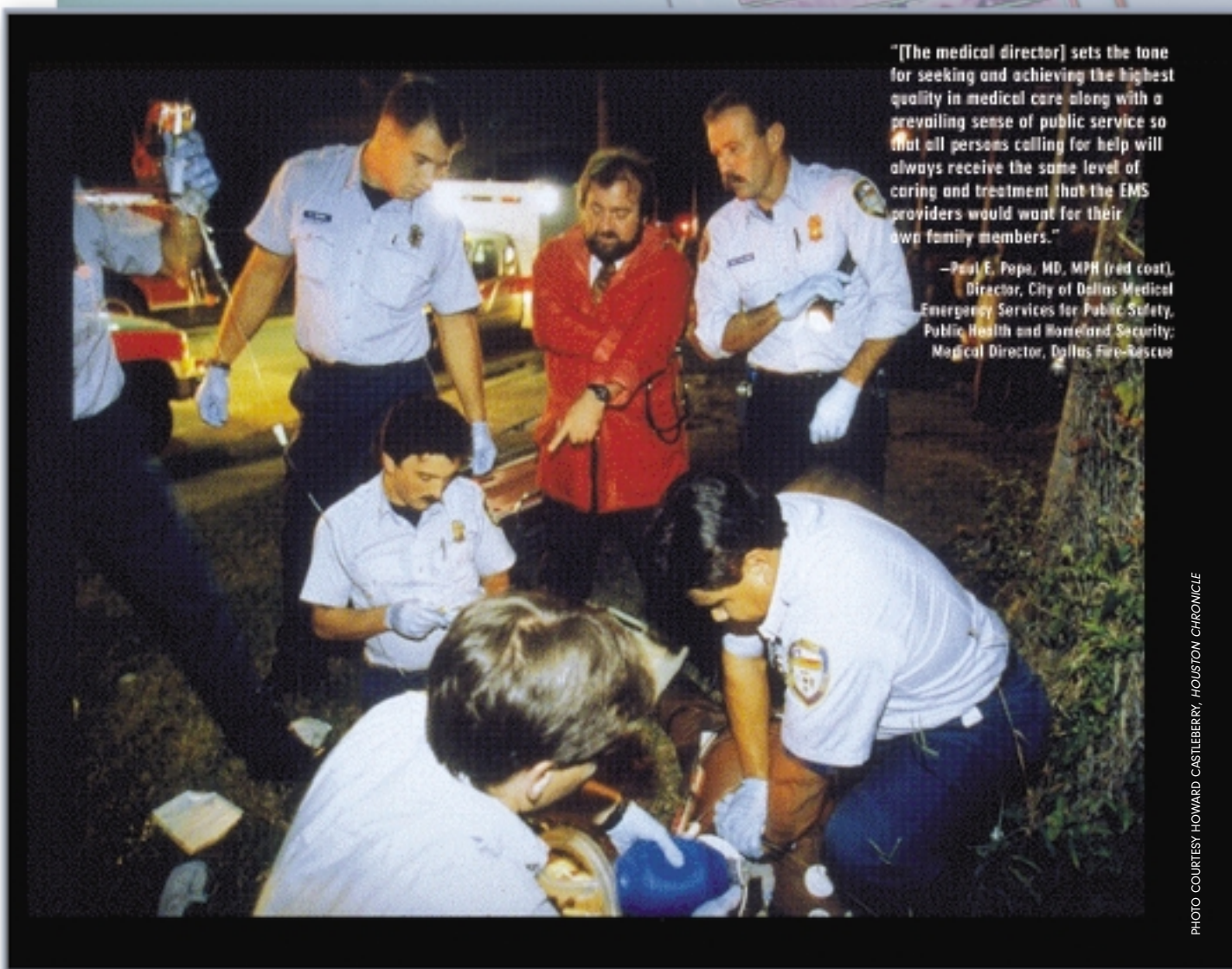

"[The medical director] sets the tone for seeking and achieving the highest quality in medical care along with a prevailing sense of public service so that all persons calling for help will always receive the same level of caring and treatment that the EMS providers would want for their own family members."

—Paul E. Pepe, MD, MPH (red coat), Director, City of Dallas Medical Emergency Services for Public Safety, Public Health and Homeland Security; Medical Director, Dallas Fire-Rescue

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EMS is a rapidly growing field that continuously changes to reflect the needs of the populations it serves. EMS has gone from simple transport without care to the performance of highly advanced, invasive and lifesaving interventions requiring extensive education and training, skill performance, experience and oversight. For many communities, however, medical direction and oversight have not changed to reflect the needs of modern EMS.

In some communities, medical direction and oversight are provided by individuals with no training or experience in EMS or medical direction, but who are willing to perform the minimum necessary functions for a service to legally operate. Although this type of medical direction may meet the legal letter of the law, it does a great disservice to the public, the health-care community, the system and its providers.

Professional medical direction provided by physicians who are held accountable for their own performance and the performance of the EMS system is becoming the standard of care. Understanding what professional medical direction is allows the EMS provider or administrator to critically examine their own agency and make the changes necessary to function as a 21st century EMS system. These principles apply to both BLS and ALS agencies because, regardless of the level of operation, different EMS systems treat the same types of patients with the same conditions.

What should an EMS agency expect from a medical director?

Minimum medical direction: A number of excellent resources describe the minimum standards for medical direction. These include the American College of Emergency Physicians' *Medical Direction in Emergency Medical Services*, the National Association of EMS Physicians' (NAEMSP) *Prehospital Systems and Medical Oversight* and the National Highway Traffic Safety Administration's *Medical Direction: National Standard Curriculum*.[1-3] EMS agencies should use these as guidelines to ensure they're receiving at least minimum medical direction. ("So Who's Your Medical Director?," p. 95, describes a simple tool to assist you in the evaluation of your medical director's role in your agency.)

EMS agencies should expect their medical director to have completed the National Highway Traffic Safety Administration's (NHTSA) one-day medical director course, a state-mandated medical director course (if available) or another program, such as the NAEMSP-affiliated medical director's course. The *EMS Agenda for the Future* recommends that all states develop qualification standards for EMS medical directors.[4]

Medical directors should be familiar with the EMS professional organizations (see Resources below) and the fundamental documents that shape EMS practice, including the NHTSA National Standard Curricula for each provider level and the EMS Agenda for the Future. An understanding of legal requirements, including EMS law, licensure requirements, and liability and malpractice issues, is also critical.

The medical director must develop a quality management (QM) system and ensure that it is properly implemented. This is where the medical director has the opportunity to make the biggest impact on patient care.

Although some EMS systems have moved toward regional or statewide protocols, the medical director may retain primary responsibility for developing and implementing medical care protocols.[5,6] The medical director must ensure that the care being provided is consistent with accepted standards of prehospital care and is based, as much as possible, on community needs, research and best-practices guidelines.[3]

The medical director must be familiar with the agency's SOPs, as well as its bylaws, articles of incorporation and mission statement. The medical director should ride along with EMS crews as often as possible, but at least once a year.

RESOURCES

- NHTSA: www.nhtsa.dot.gov/people/injury/ems
- NAEMSP: www.naemsp.org
- NAEMSE: www.naemse.org
- National Registry of EMTs: www.nremt.org
- National Association of EMTs: www.naemt.org
- Local, regional, state councils
- State medical director
- Local EMS Fellowships

The medical director must also fill a teaching role for the agency. Ideally, the medical director should provide continuing education that is oriented to issues identified through the quality management process. However, there should also be a focus on education about patient populations that are notoriously challenging for most EMS providers, such as pediatrics. At a minimum, the medical director should review the content of agency-sponsored CE to ensure that it is consistent with current clinical practice.

If the agency is responsible for its own dispatch, the medical director—or their designee—must oversee the medical aspect of the dispatch center. This is particularly important because Emergency Medical Dispatch (EMD) with pre-arrival instructions (PAI) is now considered the legal standard of care for EMS.[7]

Finally, the EMS agency must have access to the medical director whenever a critical issue arises. The professional medical director sees every patient in the community as their patient; an issue in patient care is the medical director's issue. The medical director is the medical advocate for the EMS system, particularly when the system is being attacked by external forces (e.g., other health-care providers).

State-of-the-art medical direction: In addition to the minimum performance areas discussed, many exemplary medical directors will—through training, experience and passion—provide additional value to their EMS agencies. This is reflected in staff training, quality management, political advocacy, mentoring, outreach, greater EMS community involvement, response and even occupational health.

NAEMSP offers a three-day course that teaches physicians the principles of medical oversight and prepares them for their role as a medical director.[8] However, many physicians, particularly those with emergency medicine residency training, have other valuable training opportunities. For example, the Albany (N.Y.) Medical Center's department of emergency medicine offers an externship in EMS in which one resident each year receives dedicated time to learn the principles of EMS operations, medical direction and oversight.[9] Several other residencies have an EMS focus, including extended EMS rotations, field response, system oversight and flight responsibilities.[10]

The gold standard for EMS physician training is the EMS fellowship. After completing residency, the physician elects to complete one or two years of additional training in system oversight and medical direction, mastering the principles of quality management, system evaluation, EMS education, research methodology and EMS clinical practice.[11]

State-of-the-art medical directors focus on quality management, knowing that a mature QM system identifies issues and sees them as opportunities for improvement. The medical director should directly review calls the agency handles (although not necessarily all calls) and must establish a system whereby patient outcomes can be determined and reviewed.

"The No. 1 priority as a medical director is an unyielding dedication to outstanding patient care. Success is greatly facilitated by establishing credibility among your medics as a 'hands-on' medical director."

—Edward T. Dickinson, MD, FACEP, Medical Director, Malvern and Berwyn Fire Companies, Town of Haverford Paramedics

As part of the QM system, the medical director must develop and fairly enforce a medical incident review and discipline process that identifies errors and appropriately intervenes to correct them. To perform this role, the medical director must also serve as a liaison to the rest of the health-care community, facilitating communications and addressing medical issues that arise between the EMS agency and hospitals, community physicians, public health, etc. Medical directors should know exactly how their system is performing and develop and enforce this aspect of QM. New human factors research supports the use of non-punitive, anonymous reporting systems similar to the Aviation Safety Reporting System (ASRS).

By benchmarking and understanding the system's performance, the medical director can plan for system expansion and development. The medical director performs in-field QM through routine ride-alongs or a dedicated response vehicle to maximize the teaching and improvement opportunities.[12] QM is critical.

Field response is also a hallmark of the state-of-the-art medical director. These individuals are comfortable in the prehospital environment and can safely and effectively work alongside their colleagues. Providing medical oversight and direction at MCIs, emergency incident rehabilitation or assistance on difficult calls (as requested) are standard practice for the modern medical director. These medical directors know how to not be intrusive or take over calls; instead, they are simply another resource available to the EMS provider.

The best medical directors are excellent teachers, and EMS systems should expect their exemplary medical directors to be masters. Stretcher-side, in the ED, informally during down time, during service continuing education, and in other local, regional, state, national and international venues, the exemplary medical director cherishes the opportunity to pass along knowledge and nurturing judgment.

There is significant need for an EMS agency to be embraced in the community in which it functions, and agencies

"One of the most important aspects of medical direction is developing a relationship with your EMTs that fosters their self-confidence and ability to provide quality patient care."

—Keith Wesley, MD, Medical Director, Chippewa Fire District, Chippewa Falls, Wis.

should expect the exemplary medical director to be active in local, state and national EMS political issues, and to actively seek out partnerships with other entities (e.g., public health, emergency management, law enforcement). The state-of-the-art medical director will be involved in emergency and disaster preparedness activities, including the pursuit of grants and training opportunities.

Finally, some medical directors may take on the role of occupational medicine physician for the agency. Although many in emergency medicine are untrained in this role, there are excellent educational and experiential opportunities for interested medical directors.

SO WHO'S YOUR MEDICAL DIRECTOR?

The following is a simple, common-sense, but by no means validated or evidence-based, method of evaluating whether or not your agency has a professional medical director. It's a two-part test.

PART 1: At your next in-service or crew meeting, show your providers pictures of four different physicians who practice emergency medicine in your community. Ask your providers to identify their medical director both by face and name. You should expect a greater than 75% correct response.

PART 2: Show your medical director pictures of your EMS providers and a separate, unmatched list of all of their names. Your medical director should be able to correctly match more than 50% of the names to the faces. If you're not comfortable trying part two, this should tell you something about your medical director.

What should a medical director expect from the EMS agency?

As described, a medical director's minimum responsibilities are extensive. Therefore, it's incumbent on the EMS agency to recognize that the medical director has reasonable expectations of that agency and, to provide for an equal exchange of value, to meet those expectations.

Compensation: It's often said that no one gets rich in EMS; this is as true for the EMS physician as it is for anyone else, and most agencies find that they need to provide adequate compensation in order to obtain state-of-the-art medical direction.[13] If a medical director elects to donate time to the community in the form of medical oversight for an EMS system, this in no way suggests that the quality of the oversight will be poor. However, in any EMS system, high-quality, professional medical direction requires a significant time commitment, and the larger and busier the EMS system, the greater the commitment. Some form of compensation will allow the medical director to decrease other work commitments and provide more dedicated time to the agency. In addition, a compensated contract increases the physician's accountability, giving the agency more authority to demand excellence in medical direction. (See below for a discussion of how to determine fair reimbursement.)

Currently, five general models for EMS medical direction compensation exist: 1) direct pay; 2) buying time from hospital/practice group; 3) convincing the hospital of its obligations to the community; 4) convincing state legislatures of the value of a paid medical director system; or 5) grants.

"The most important aspect of EMS medical direction is to never forget that we are all here for the same goal—to serve our patients. As the physician in charge, you must be the ultimate patient-care advocate."

—Marc Eckstein, MD, Medical Director, Los Angeles Fire Department

COMPENSATION MODELS

You can determine appropriate compensation for a medical director in a number of ways. Two commonly used models are the per-hour rate and the per-call rate. Each has advantages and disadvantages.

In paying a per-hour rate, the agency should base its pay schedule on the average prevailing hourly rate for the physician's specialty, the cost of benefits and the cost of appropriate administrative support. For example, if the average emergency physician is paid $125/hour in a community, the cost of purchasing his time will be $125/hr + 20% ($25/hour) for benefits, plus $25/hour for administrative support (this portion is highly variable) for a total rate of $175/hour. Contracting directly with the physician will eliminate the cost of benefits, but the agency still has an obligation to provide or pay for administrative support.

The major advantage of this approach is that it clearly identifies the number of hours of service that the physician is directly obligated to provide. The disadvantage is that the agency has to guess at how many hours it will need to obtain adequate medical direction and the hours contracted may not reflect the needs of the agency.

A second model takes into account the call volume and growth objectives of the agency. In the per-call plan for an agency that is *not* in transition (e.g., not expanding, assimilating another agency or attempting to change the level of service), $5/call handled is a reasonable estimate of the costs to an EMS agency for professional medical direction. For an agency going through transition, $10/call is reasonable compensation.

Using the previous estimate of $175/hour as a system's medical direction cost, a 21,000 call/year EMS system not in transition should expect to pay $105,000/year (21,000 calls at $5/call) for medical direction and should expect the medical director to provide 600 hours/year ($105,000/year at $175/hour) of direct service.

The major advantage to this system is that it reflects true call volume related to the needs of an agency. Disadvantages include the fact that the previous year's call volume may not accurately forecast this year's medical direction needs. This model also assumes the EMS agency is not providing administrative support.

"Medical direction begins with understanding current practices of medicine and striving to update and adapt them to prehospital care."

—Jay Lance Kovar, MD, FACEP, Medical Director, Conroe Regional Medical Center Emergency Department, Conroe, Texas; Medical Director, Montgomery County Hospital District (MCHD) EMS; Medical Director, Petroleum Helicopters Inc. (PHI) Air Medical

(To read a complete interview with Dr. Kovar and get his take on what field providers should know about medical direction, visit www.jems.com/news/16153.)

Under the direct pay model, the agency—on its own or in partnership with other agencies—establishes a contract directly with the medical director. The medical director is paid a predetermined sum for a specified set of services. The advantages to this approach are that the medical director is an employee of, and thus directly accountable to, the agency. Disadvantages include the need to provide alternate means of liability insurance and the tax issues associated with contract workers. Nonetheless, it's a very common model.

Under the buying time model, a contract is established with the medical director's employer (the hospital or practice group). Under this contract, the employer is paid a set fee by the agency and, in return, releases the medical director from some clinical responsibilities. In this model, independent contractor tax issues are avoided, and the medical director can be covered under their already existing malpractice and general liability insurance from their clinical practice. On the downside, the employer may elect not to dedicate all the contract funds to clinical "buy-back," may provide a different physician than expected as the medical director or may spread the responsibility among several individuals.

In the third model, the agency may appeal directly to a local hospital to provide EMS medical director services as part of its mission to support the community. The hospital then either assigns the responsibility to an employee medical director or directly contracts with a physician to act as an EMS medical director. The main advantages to this model are that the hospital pays for the medical director and most tax and liability issues are avoided. The major disadvantage is that the medical director does not have any specific employer/employee relationship with the EMS agency, thereby blurring the lines of accountability. In a small community with many low-volume, low reimbursement EMS agencies, this may be the only viable strategy to obtain professional medical direction.

Government employment is also a potentially viable strategy for the EMS agency to obtain professional medical direction. Convincing local, regional or state governments to provide professional medical direction has the major advantage of potentially giving the medical director statutory authority. Unfortunately, this approach may also result in significant bureaucracy and if, at the state level, an insufficient number of physicians are employed, the value of professional medical direction may be diluted.

Finally, some EMS agencies may qualify for grants to support

EMS activities, including professional medical direction. This may be particularly true in rural areas. Unfortunately, these funds are unreliable and may not be available year to year.

Liability protection: Regardless of the compensation model used, liability coverage must be addressed. Physicians assume what may be a significant liability when they provide professional medical direction, and it's unfair to allow them to take that risk. In some models (buying time, hospital-provided medical direction and municipality-sponsored medical direction), the nature of the arrangement may address liability coverage.

Unfortunately, in the other models, finding *dedicated* medical director liability coverage may be difficult; insurance companies don't often offer this type of coverage. However, if the agency purchases its other insurance products from such companies as VFIS, they are eligible to buy VFIS medical director liability coverage.[7] NAEMSP is also planning to coordinate the offering of an insurance product for medical directors in late 2006.

Authority: The medical director must have a clearly delineated position within the agency's organizational chart and must be at the same level as the operational director; the operational director is responsible for operational affairs whereas the medical director is responsible for clinical affairs.

"To me, the most important aspect of medical direction is to be able to engage the EMS system from every perspective. The dynamic interface of all issues relative to EMS practice and delivery of care are inseparable and impact medical care."

—Paula Willoughby DeJesus, DO, MHPE, EMS Medical Advisor, Chicago Fire Department

One of the most important rights of the medical director is the authority to suspend a provider's privilege to practice if, in the physician's determination, the provider is a threat to the safety of the community. Providers must, by signed contract, grant this right to the medical director. This is not to say the medical director has the right to fire providers, but rather that the medical director may determine who may provide medical care. It is the role of the operational director—not of the medical director—to determine employment status.

Other medical director support: To maximize the quality of training and subsequent care, the medical director should expect to receive a training and development budget as well as access to all educational materials used for agency training. The budget should be sufficient to allow the medical director to provide special training opportunities and purchase devices and services for trial. By having access to classes, the medical director has the opportunity to improve their knowledge, skills and abilities in the performance of EMS tasks (i.e., they take the training themselves) and to ensure that the training is consistent with their medical goals (i.e., they oversee the training even if they aren't directly providing it).

Finally, the medical director should receive certain equipment. If they're expected to be in the field, they'll need personal protective equipment appropriate to, and adequate, for any role

they might fulfill.

In addition, to ensure critical access to the medical director, a pager or cellular phone should be issued to them. The medical director should also be issued a radio to allow them to monitor both EMS calls and radio reports to other units and to the hospital.

Depending on the role the medical director is expected to play, the agency has three additional responsibilities to the medical director. The first is a conference stipend for the medical director to attend appropriate conferences, the second is cooperation in research, and the third is a response vehicle.

If the medical director is expected to participate in state and national EMS conferences, then a stipend sufficient to cover the costs of professional memberships and appropriate conference expenses should be provided. Without this stipend, the medical director may

"I care for each person behind the uniform and admire the challenging day-to-day work they perform in the field. I work hard to serve them by supporting their mission with access to the right information, direction, protocols and equipment."

—Ross Judice, MD, MPH, Medical Director, Acadian Ambulance Service Inc., Louisiana

be disinclined to attend these conferences, particularly if the conferences do not issue continuing medical education credits for physicians.

The medical director may also find themselves in a position to perform EMS research. This opportunity should be embraced by the EMS system and the medical director should be supported in every way possible to aid in the research. EMS research improves the quality of care and is an honorable activity for an EMS system and its medical director.

Finally, if the medical director is expected to provide in-field QM or respond to calls, it's unreasonable to expect them to use their own vehicle, both from a wear and a liability per-

"If I could say anything about the most important part of professional medical direction it would be this: Never forget that EMS is a practice of medicine. Not only that, it's the most unique practice of medicine around."

—Ed Racht, MD, Medical Director, Austin/Travis County (Texas) EMS System

spective. If the operational director, assistant directors or supervisors have take-home response vehicles, then the medical director should as well.

The medical director may potentially play a significant role on scene at an MCI or rehab scene and must be afforded the ability to respond appropriately. The agency must require the medical director to complete the same driver education training as any member with a minimum of an emergency vehicle operations class.

Conclusion

EMS is a rapidly growing field that requires extensive education, experience and oversight. Professional medical direction provided by physicians who are held accountable for their own performance and the performance of the EMS system is becoming the standard of care.

Professional medical directors dedicate their careers to EMS, maximizing patient care and outcomes. In return, the medical director has expectations of the agency. Through the mutual support of each other's goals and needs, EMS agencies and their medical directors serve as the medical safeguards of their communities. JEMS

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