

POSITION PAPER

NATIONAL ASSOCIATION OF EMS PHYSICIANS

AMBULANCE DIVERSION

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POSITION

A principal function of emergency medical services (EMS) systems is to provide patients with urgently needed emergency medical care and to deliver them to an appropriate emergency medical facility as rapidly as possible. The phenomenon of ambulances transporting emergency patients beyond the closest emergency facility to a more distant destination occurs under three circumstances: a specific patient request, a triage decision that directs a patient with special needs to a facility offering a specialized or higher level of care, and a decision to avoid a facility that has declared a lack of resources needed by that patient. This position statement

deals exclusively with "diversion" or "bypass" situations resulting from the lack of normally available hospital resources.

The diversion of ambulances, because of temporary shortages of emergency department (ED) or inpatient facilities, may have adverse effects on patient care and the EMS system as a whole. EMS personnel are limited in their ability to definitively treat and stabilize critically ill or injured patients in the field. Therefore, it is necessary that EMS systems, including receiving facilities, take all necessary measures to avoid diversion of ambulances, which may result in:

1. unacceptably prolonged transport time intervals;
2. prolonged out-of-hospital care when definitive hospital-based resources are needed, especially for unstable or critically ill patients;
3. inappropriate attempts by field personnel to predict the specific diagnostic and therapeutic resources needed by individual patients; and
4. delays in, or lack of, ambulance availability to the community because of diversion of units to distant hospitals.

Responsibility for averting these conditions is shared by all those who contribute to EMS structures and processes. The National Association

of EMS Physicians believes that the following principles apply to EMS system participants:

All Participants

The diversion of ambulance patients away from the closest or normally most appropriate ED should be considered undesirable, but may be occasionally necessary. In all cases it should be considered a temporary measure while efforts are under way to successfully restore essential resources. All participants, including hospitals, medical control authorities, and provider agencies, must agree to an EMS policy that clearly delineates categories of hospital or ED diversion based on the lack of available resources. These categories must be explicit, allowing out-of-hospital personnel to rapidly determine the most appropriate destination under conditions of limited resources.

1. General categories must be defined prospectively and recognized systemwide.

2. Systemwide triage rules that direct specific types of patients, based on assessments within the scope of field personnel education and practice, to hospital facilities offering higher or specialized levels of care, may be appropriate. Such rules may direct severe trauma, burn, pediatric, and/or other patients to predesignated facilities, which may not necessarily be closest to the emergency

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scene. These situations *do not* represent examples of temporary diversion caused by limitation of resources normally available at the closest facility.

3. Categories for selective diversion due to temporary lack of a specific diagnostic or therapeutic resource (e.g., neurosurgical, orthopedic, CT scan) are strongly discouraged because they require out-of-hospital personnel to make predictions about the specific needs of EMS patients, without the requisite education or experience for doing so. If utilized, such categories must be prospectively defined and recognized systemwide. They must not require out-of-hospital EMS workers to make diagnoses in order to predict the specific resources that will be needed (see Hospital Requirements, below).

4. Any policy creating specific categories of diversion must include concise assessment-based criteria to guide field personnel in their implementation for individual patients and must be accompanied by appropriate education of EMS providers.

5. All participating agencies must agree to a mechanism for timely transmittal and receipt of information about initiation, termination or change of any resource limitation, or diversion status.

6. Interhospital transfer agreements must be in place to provide access to appropriate definitive care under circumstances of resource limitations. Such agreements should be in compliance with all federal, state, and local statutes.

7. The system must agree to criteria and procedures for overriding a hospital's diversion status. The following considerations should be addressed:

- patient condition
- duration of transport time intervals
- multiple hospitals on diversion ("all closed, all open" situation)

- mass casualty or disaster incidents
- designation of the appropriate authority to make an override decision

8. Communities should attempt to legislate immunity that protects EMS personnel (field and base station) who, with limited available information, make good-faith decisions regarding appropriate destinations for patients.

EMS Medical Oversight

1. The medical director must work with the other EMS system participants to prospectively determine conditions under which a request to divert patients may be permitted or overridden. These should be promulgated across the system in the form of written guidelines and should address at least the following issues:

- transportation time intervals
- distances between receiving facilities
- severity of patients' conditions

2. The medical director must ensure the availability of direct medical control by qualified individuals (e.g., physicians or their qualified designees) to evaluate the appropriateness of individual patient diversions. At all times, the authority for permitting patient diversions rests with the direct medical control providers.

3. The medical director, in consultation with the other EMS system participants, must be prepared and empowered to modify the criteria for diversion as needed.

4. The medical director must monitor the frequency, type, and effects of hospital diversion status. Participating hospitals and provider agencies must provide the medical director with data necessary to adequately monitor diversion practices. EMS quality improvement activities should include continuous evalua-

tion of diversion practices and identification of potential methods for diversion reduction.

5. The medical director must be empowered and prepared to apply corrective action to facilities whose actions or policies result in inappropriate patient diversions.

Provider Agency Requirements

1. The provider agency must ensure that direct medical control is available, and that authority for confirming or overriding a decision to divert a patient rests with the direct medical control provider.

2. Provider agencies must ensure the means to obtain up-to-date information on the resource availability and diversion status of all receiving facilities.

3. Provider agencies should develop plans for the deployment of ambulance units based on established patterns of diversion practices in order to maintain appropriate response time intervals. They should monitor diversion activity and inform EMS medical and administrative authorities when their capacity to accommodate diversion requests is exceeded.

Hospital Requirements

1. Hospitals must meet predefined, accepted criteria (see All Participants, above) in order for a diversion status to be recognized.

2. Decisions to divert patients must apply to all patients; preferential routing of "desirable" or "private" patients to an ED on diversion status must not occur. Under no circumstance should a diversion decision be based on race, gender, insurance, or socioeconomic status of the patient.

3. A hospital, regardless of its diversion status, must agree to care for any patient when EMS personnel and/or the direct medical control provider determines that it is

the most appropriate transport destination.

4. Hospitals should designate specific staff who are authorized to request diversion status. The identity of these individuals should be on file with the EMS provider agency(ies) and the EMS medical control authority. Senior hospital administrative personnel must be continuously aware of, and ultimately responsible for, the diversion practices of their institutions.

5. Except in specific situations agreed upon prospectively by the EMS system, requests for ambulance diversion should be based on availability of ED resources. Although specific inpatient resources may be unavailable, a hospital should continue to receive patients as long as the ED has the capacity to evaluate, stabilize, and provide ongoing emergency care for them.

6. Hospitals must have a policy, in accordance with guidelines agreed upon by the EMS system, that ensures that appropriate measures are taken to both avoid and terminate diversion status. Such policies must include the following provisions:

- A. In-house resources should be fully utilized to minimize ED overcrowding. For example, if the ED is requesting diversion status because all of its beds are occupied by patients awaiting admission, then all in-house beds should be fully utilized.
- B. Procedures to procure additional resources should be in place, and may include accelerated discharge planning and mobilization of additional staff.
- C. A hospital should not protect specific beds for elective admissions when it is diverting EMS patients to other institutions. Elective nonemergency admissions and unscheduled transfers to the hospital should

be delayed or canceled if, due to a lack of inpatient resources, they interfere with pending emergency admissions.

7. Diversion of specific types of patients must be limited to categories prospectively designated by the EMS system. Hospitals normally offering comprehensive emergency services should have preexisting arrangements with nearby hospitals to accept their patients while a diversion is in effect.

8. Hospitals must update their diversion status at predefined intervals (e.g., every 6 to 12 hours) or be subject to automatic reinstatement of their normal status.

Government Agencies

1. State, regional, and local EMS lead agencies should promulgate statutes and/or policies that address the practice of ambulance diversion.

2. EMS statutes and policies should confer appropriate authority to the EMS medical director for monitoring and enforcing EMS system ambulance diversion policies.

3. State and regional EMS authorities must be empowered and prepared to apply sanctions against EMS system participants who are in violation of approved ambulance diversion policies.

DISCUSSION

Emergency medical services systems were developed to deliver immediate life-sustaining medical care in the out-of-hospital setting, and to provide expedient transportation to an emergency facility capable of rendering definitive care. In recent years, EDs have placed themselves on ambulance diversion status with increased frequency.¹⁻⁶ This has placed significant stress on EMS systems and personnel and impaired their ability to efficiently provide out-of-hospital emergency care. Although the majority of reports of EMS systems suffering from the effects of ED di-

versions come from large urban settings,^{2,3,5,7,8} the ambulance diversion problem has been reported in communities of various sizes.¹ Perhaps the only locations where ambulance diversion may not occur are very rural, where isolated hospitals never have the option of diverting ambulances.

The most frequently described conditions resulting in ambulance diversion are a consequence of overcrowded EDs.⁹ Although a full discussion of this complex subject is beyond the scope of this paper, factors cited as contributing to the overcrowding situation include the increased use of the ED for primary care, a shortage of in-hospital general and critical care beds, nursing and physician shortages, increasing condition severity and medical demands of hospitalized patients, hospital closures, and decreasing availability of nursing homes and skilled care for patients awaiting release.^{2,4,8,10-12}

Hospitals have diverted certain categories of patients due to temporary or long-term unavailability of particular specialists (e.g., neurosurgeons, obstetricians), lack of specific resources (e.g., CT scan, operating rooms), and saturation of critical care beds.^{1,4,13,14} In at least one locale, hospitals have demanded a limitation on the catchment areas from which they may receive patients as the condition for continued participation in the EMS system.¹⁵

Frequent ambulance diversions to distant facilities can potentially deprive a community of a timely ambulance response. Few EMS systems have directly measured the effect of hospital bypasses on ambulance response times.⁶ However, many individuals have conveyed their frustrations related to obtaining a timely ambulance response during periods of ambulance diversion prevalence.

The rapid growth of managed health care programs, which often designate specific hospitals for their patients to obtain emergency treatment, can be expected to increase the

pressure on EMS systems to transport patients to such predetermined destinations.¹⁶ As yet, questions of patient stability, proximity of the requested destination, and capacity of the intended destination to receive additional patients have received little consideration in developing policies and reimbursement practices for these medical networks. Health maintenance organizations and other managed care programs that require their patients to be transported to specific institutions should work with EMS providers to ensure that the interests of both parties to provide high-quality and cost-effective medical care are met.

When one or more hospitals are diverting EMS patients, the increased transport time required to find an "open" ED may contribute to patients' clinical deterioration, including death. Such instances have received considerable attention in the lay press and inevitably meet with public outrage.^{11,17} Field EMS personnel cannot always accurately predict whether or when a patient will deteriorate while they attempt to access an "available" hospital. Without doubt, some patients are better served in an ED, even one that is extremely busy and wishing to divert patients, than in an ambulance with a prolonged transport time.

When a specific hospital resource such as a CT scanner, operating room, or neurosurgeon is temporarily unavailable, EMS personnel should not be expected to accurately predict the specific diagnostic or treatment needs of their patients. Many EMS systems have effectively developed predetermined triage categories using objective assessment-based, out-of-hospital information in

order to route specific patients (e.g., trauma). However, it is more difficult and probably unreasonable to expect field personnel to make a subjective determination regarding their patients' needs for specific unavailable resources that are normally provided at the closest receiving facility.

SUMMARY

Policies regarding ambulance diversion are critical to ensuring that EMS providers are aware of appropriate patient destinations, even before patients enter the system. Field EMS personnel should never be requested to prolong transport time intervals to search for an available hospital at the potential expense of patients' conditions and the immediate availability of out-of-hospital emergency care for the community. The responsibility for providing efficient emergency care to the community rests with all those who contribute to EMS structures and processes. All EMS system participants, including hospitals, EMS providers, local and regional lead agencies, and medical oversight authorities, must work together to create comprehensive ambulance diversion policies that satisfactorily meet each other's needs, while maintaining the highest regard for the needs of EMS patients and the entire community.

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