Regulation of Emergency Services

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THE transportation and care given an accident victim until he reaches a proper medical facility are frequently crucial to his survival. Nevertheless, the emergency services in most communities are noticeably unsupervised and unregulated, and, all too often, accident victims arrive at the hospital with injuries and conditions inadequately cared for or even obviously aggravated by improper handling. In contrast, a mass of accreditation, examination, and licensing procedures protect accident victims once they are at the hospital.

The lack of regulation in emergency transportation services is of specific concern to the practicing physician, the health department, and the citizens themselves. The practicing physician is most directly concerned because only he has the knowledge necessary to give proper direction and training to emergency service personnel. The health department has a direct concern because, where regulations do exist, the health department is the agency most frequently designated to inspect for compliance with regulations governing the type and equipment of emergency vehicles and the training of emergency personnel. The citizens themselves are obviously the most vitally affected because they, including you and me, are the victims of accidents and other emergencies.

Survey of the Problem

In a national survey (*1*) undertaken in 1958, information on emergency services was obtained from 865 of 1,560 cities of 10,000 population or over from which information was requested. The survey is the basis of the most comprehensive report available on emergency services in the United States today. The findings are not reassuring. The survey indicates that only 54 percent of the vehicles used for the transportation of the injured are of an adequate type (ambulance or dual-purpose patrol car). The remainder are ordinary patrol cars, in which patients can be transported only in a sitting position. In some cities, emergency vehicles go out with only the driver, making it necessary for some untrained person from the scene of the accident to ride with victim or for the victim to ride unattended. The majority of ambulances and dual-purpose patrol cars have proper equipment for splinting, controlling hemorrhage, dressing wounds, and providing oxygen, but ordinary patrol cars usually lack proper splinting equipment and oxygen.

It is not known what proportion of emergency attendants have had any first aid training or what proportion of those with training have had a recent refresher course at the level of the advanced Red Cross course, generally considered to be a minimum requirement. It is certain, however, that regulations covering emergency service, including the training required of attendants, are inadequate. Only 11 States have regulations bearing on the provi-

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sion of emergency services; only 12 percent of reporting cities had ordinances covering the major aspects of emergency service, including the training required of emergency attendants. The equipment and the qualifications of personnel in cities of 10,000 to 50,000 population in the survey were generally less adequate than those in larger cities.

National Efforts

Physicians, particularly in the surgical specialties, have long been concerned with improving emergency services. Health departments also are beginning to take action. However, the scarcity of adequate emergency services is such that national organizations are taking steps to stimulate their development. A joint program was begun in 1957 to coordinate the efforts of the American College of Surgeons, the American Association for the Surgery of Trauma, and the National Safety Council. This program produced the survey cited previously of emergency services in cities. A model ordinance regulating ambulance service was drafted by representatives of the program, the Public Health Service, and the International Association of Chiefs of Police. A technical group drew up a section on transportation of the injured for the action program of the President's Committee for Traffic Safety. Since the problem is chiefly one of local jurisdiction, however, the development of good emergency services depends primarily on local action.

Basic Elements of Good Service

Certain basic elements are common to all well-operated emergency services, whatever the pattern of their organization. They include adequate vehicles and equipment, an organized dispatching system, properly trained attendants, and a responsible operating agency. In providing these basic elements, it must not be forgotten that a great many cases requiring emergency care and transportation will not be automobile crash injuries. Most of the transportation will be for children and older people, the commonest victims of heart ailments, falls, and poisoning. A high percentage of ambulance runs are for patients with nonaccidental conditions such as strokes, coronary attacks, abdominal emergencies, childbirth or abortion, acute psychiatric disorders, and alcoholism. The equipment and training to provide emergency care for such patients should also be included in the services.

Operating agency. The type of organization that provides emergency services in the community will depend on local practices. A wide variety exists. Emergency services may be operated in a community by the police department, fire department, local hospitals, funeral directors, volunteer groups, and rescue squads, or a separate municipal ambulance service. One or more private, independent services may operate under contract to the city or on a fee-from-customer basis. All these types of organizations can be equipped, staffed, and trained to provide good emergency service.

Dispatching system. A vital part of the community service is an organized dispatching system. It may be operated by the police, the fire department, a hospital, or the health department. The system must eliminate overlapping and duplication, so that extra vehicles will not be sent to an accident site unnecessarily. Zoning of the city is a method often used to get efficient coverage of the area and equitable distribution of the workload. The lack of an efficient dispatching system usually produces hazardous situations, with ambulances and other emergency vehicles racing to each call because only the first to arrive will get a fee.

Vehicles. Emergency vehicles should be capable of transporting one or more persons on stretchers, since the victims of many types of injuries and conditions can be safely transported only in a prone position. The vehicle should have sufficient head room so that certain emergency patients, such as asthmatic and cardiac patients, can be transported with trunk and head raised. There should be enough space for an attendant to sit with the patient during the trip to provide necessary care.

Equipment. The vehicle should carry a variety of splints, dressings, and means to control hemorrhage. Equally important is equipment for safely moving the victim from where he is up a hill or downstairs and into the vehicle. Equipment for resuscitation, clearing and maintaining an airway, elevation

of the foot of the stretcher, suction apparatus, and restraints for a violent or criminal victim might be considered, as well as additional equipment for dealing with specific local requirements for service. Partial lists of equipment for emergency vehicles are available (*2–4*).

Selection and training of attendants. The best equipment is of little use in the hands of an untrained attendant. In strange contrast to the careful selection, training, and licensure of other medical and paramedical personnel, ambulance attendants are often untrained and haphazardly selected. In fact, the job is too often a refuge for the inadequate or misfit personality. Perhaps there is a basic mistake in the way we think of emergency vehicle attendants. They should not be considered laymen to be trained in the mere rudiments of first aid. They are paramedical personnel, with an important and often crucial role to play in patient care. The critical nature of the work requires that the personnel be selected and trained with greater care than is now generally exercised.

When the community hospital, health department, Red Cross, or other group desires to conduct an ambulance training course, the local medical society or surgical trauma committee should play a key role, both in determining the course content and in providing instruction and supervision.

The American Red Cross introductory courses are usually followed just as they are laid out; occasionally supplementary material is included. These courses rarely include training with the pieces of equipment that the emergency vehicle carries. It should be kept in mind that not only automobile crash victims, but also many other kinds of patients will be transported by these attendants, and training undoubtedly should include the fundamentals of emergency care for these other conditions. Suitable refresher courses at specific intervals should also be provided.

Some special training in driving an emergency vehicle is worthwhile, with emphasis on the rules and precautions which must be followed, especially when flashing red lights and sirens are used. Courses now provided for the police may be used in some communities. A special emergency vehicle driver's license might well be established. Emergency driver training should heavily emphasize driving in a manner consistent with traffic safety while keeping the welfare of the patient uppermost in mind.

Regulation, Inspection, and Licensure

Licensing of medical, paramedical, and public health personnel has proved an effective means for obtaining compliance with standards and has assured adequate quality in most patient care services available to residents of most communities. Logically, requirements for licensing emergency services and individual attendants are to be expected. Regulations governing vehicles, equipment, and attendant training should be established, with provisions for inspection and enforcement built in.

The attendant's license may require that he have evidence of adequate training. Certain physical standards should be set, since the attendant must often exercise considerable agility and strength to move a victim up or down stairs. Periodic renewal of attendants' licenses should be required, with a refresher training course and perhaps a physical reexamination as renewal requirements.

A license to operate the emergency service might be required of the operator or operating agency. The license could be based upon compliance with regulations governing vehicles, equipment, employment of licensed attendants, and other aspects of emergency service, with revocation for failure to comply.

Periodic inspection would be necessary to insure that regulations were being followed. The health department having jurisdiction in the locality seems to be one logical inspecting agency. It usually has a similar function with respect to nursing homes, day care centers, hospitals, cafes, and other facilities providing services affecting the health of the public.

Traffic regulations for emergency vehicles are highly controversial. For example, should these vehicles have the right-of-way over other traffic or be allowed to travel at speeds above the posted limits? There are many points on both sides of the argument. Because of its controversial nature, the issue has perhaps been overemphasized.

Organizing for Local Action

If members of the local trauma committee, medical society, health department, or safety group see that emergency services in the community need improvement, they should organize toward this purpose. The initial impetus can come from any of the groups. However, if one group proceeds without the others, its efforts probably will not be as effective as joint action would be, and its chances for success are jeopardized. The support of the local safety organization, if one exists, is a valuable addition. The local medical group, the health department, and operators of the emergency services must be represented in planning the most acceptable program. Their representatives can decide the types of vehicles, equipment, attendants' training regulation, and licensure that are needed for emergency transportation services in their community. The efforts of such groups have been successful in providing good emergency services in a few localities.

Summary

Although emergency transportation and medical care services vary widely among U.S. communities, for the most part they are insufficiently regulated and lacking in quality. A higher standard of service is attainable through organized, systematic local efforts to regulate vehicles, equipment, and the selection and training of attendants. This supervision would comprise establishment of detailed minimum standards, periodic inspection, and licensing of operating agencies and individual attendants. Community efforts toward regulation have a better chance for success when all interested groups are represented in the planning. In communities where the responsible groups avoid the problem, the citizens will continue to suffer instances of needless injury and deaths.

REFERENCES

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(3) Emergency rescue squad manual. Division of Vocational Education, State Department of Education, Columbus, Ohio, 1961.

(4) Young, C. B., Jr.: Transportation of the injured. Charles C Thomas, Springfield, Ill., 1958.

"Read My Arm"

The screening of migrant farmworkers in the field for tuberculosis is depicted in the film, "Read My Arm." The tuberculin tine test is used for screening. At the film's first showing, presented before the Association of State and Territorial Health Officers, Senator Harrison A. Williams (at left, in a scene from the film), chairman of the Senate Subcommittee on Migratory Labor, stated that farm migrants continue to be a major target of infectious disease because their constant movement prevents them from using public health services available to other citizens. He said the film made clear that imaginative programs can help farm migrants by bringing health services directly to fields where migrants work.

The film was produced by the New Jersey State Department of Health in cooperation with Lederle Laboratories. Dr. William J. Dougherty (holding worker's arm), director of the division of preventable diseases, New Jersey State Department of Health, was technical consultant. The 16-millimeter film is in sound and color and is 16½ minutes long. It may be borrowed free of charge for showings to professional groups from the Tuberculosis Education Unit, Public Relations Department, Lederle Laboratories, Pearl River, N.Y.