

Emergency Medical Services

VOLUNTEER EMTs SERVE AS FIRST RESPONDERS IN WISCONSIN AND WYOMING

by Robert E. Motley, EMS Advisor
Emergency Medical Services Branch
Traffic Safety Programs, NHTSA



In the past seven years over \$86,000,000 of 402 funding have gone to upgrade Emergency Medical Services in the States. The matching grant program is administered by the Governor's Highway Safety Representative,

EMS efforts to upgrade ambulance services include training of personnel at the basic and paramedic levels and the purchase of ambulances meeting design criteria, communications equipment and patient care equipment.

We have developed and published a first responders' training course entitled "Crash Injury Management". An order form is printed at the end of this article.

Research indicates that 50% of those who die from traumatic injuries die outside hospital emergency departments and that 70% of traffic fatalities occur in rural areas, although rural areas contain only 40% of the population. The ACT Foundation (Advanced Coronary Treatment) reported that the chance for recovery of the victim in ventricular fibrillation is 25 out of 100

when the ambulance response time is within five minutes. This rate drops to 1 out of 100 when the ambulance response time is 10 minutes. A victim of a "Cafe Coronary" may die in 4-6 minutes.

Few city ambulance services can claim an average response time of five minutes or less. For those services which do claim a five minute response time, the data may be misleading. Response time is often recorded between the time the ambulance leaves its quarters until it arrives at the address of the accident or illness, not when the EMTs reach the victim on the 20th floor of a high-rise office building. The time between the detection of the accident or illness and the notification of the dispatcher is rarely included as part of the response time.

If these factors are considered, the 5 minute response is more than likely a 7 to 10 minute response.

Rural ambulance service cannot be expected to have a response time of less than 20 to 30 minutes. It is not economically feasible to establish more ambulance services in rural areas for the purpose of reducing this response time. A number of State and local EMS programs have developed systems whereby emergency medical care is delivered to the victim prior to the arrival of the ambulance, thus reducing the response time.

The Wisconsin Emergency Medical Services program has developed a dual response system to better serve the rural area of the state. There are two methods of operation. First is the rescue truck and the ambulance service. Rescue trucks, generally housed at fire stations, are equipped with extrication equipment, two-way radio communications and a limited amount of medical supplies, and are staffed by EMTs (Emergency Medical Technicians) but do not transport patients.

The ambulance services are volunteer, municipal and privately operated. When a call is received, both units respond. The rescue unit generally arrives at the scene first. They treat, stabilize and observe the patient until the ambulance arrives.

The second method is the ambulance and auxiliary response. Auxiliaries volunteers trained and certified as EMTs are





strategically located in small towns, at industrial plants, on farms or other places of business within the ambulance response district. Auxiliaries are equipped with two-way portable radios and a medical jump kit. They respond to the accident or illness in their private automobiles. The auxiliary and the ambulance are dispatched at the same time.

Under certain conditions the auxiliary could transport the patient in his car to a doctor or a hospital. He would not transport if the patient's illness or injury was life-threatening. He could transport, for example, if the patient had a minor fracture or minor lacerations where bleeding could be easily controlled with pressure bandages. If the auxiliary transported the patient, he would contact the dispatcher to return the ambulance into service.

Wyoming, a rural state, has a population of only 332,000 in 98,000 square miles. They have 71 ambulance services in operation with approximately 100 ambulances, all volunteer but one. This averages out to one ambulance service for each 1,380 square miles.

In Wyoming, it is not unusual for an ambulance response time to be one hour or more. There are 640 certified EMTs who man the ambulances. There are an additional one thousand volunteers trained as EMT first responders. The volunteers operate much the same as the auxiliaries in Wisconsin. A 24 hour ambulance dispatch service is provided through the statewide Highway Patrol communication frequency.

A potential legal problem exists in both Wisconsin and Wyoming response methods, as with any first response system. The first EMT at the scene of the accident or illness must make certain that the crew transporting the patient is as well trained in emergency medical care as he is. If not, he should accompany the patient to the hospital in the ambulance, otherwise, he may be subject to suit for abandonment of his patient.

The local Heart Association and the American National Red Cross in cooperation with the local fire departments or ambulance services are usually available to provide

Cardio Pulmonary Resuscitation and first aid training courses. Seattle, Washington, for example, through the fire department EMTs has trained approximately 100,000 of its citizens in CPR. It was reported that 20 percent of resuscitations in Seattle this past year were initiated by private citizens.

Training in emergency medical care of the highway injured should be encouraged in high-school driver education programs. This type of training is a prerequisite in many European countries before its citizens are issued drivers licenses.

Other potential resource groups in rural communities who could be trained as first responders are school bus drivers, rural mail carriers, sheriffs and agricultural agents. These people travel back roads on a scheduled basis and become familiar with the activities of the local populace. Anything out of the ordinary can be immediately investigated such as an elderly person, living alone, who has not picked up his mail. An investigation may reveal that the individual had suffered a stroke or had fallen and broken his hip. Broken shrubs by the side of the road or skid marks leading off the road may indicate an off-the-road accident. If these people were equipped with two-way radios they could report the accident or illness. With proper training and emergency medical supplies they could stabilize the patient until the ambulance arrived.

MAIL ORDER FORM To:

Superintendent of Documents, Government Printing Office, Washington, D.C. 20402

Enclosed find \$.....(check, money order, or Supt. of Documents coupons).

Please send me copies of the following CRASH INJURY MANAGEMENT course documents:

CATALOG NO.	QUANTITY DESIRED	TITLE OF PUBLICATION	PRICE PER COPY	TOTAL
5003-00-133		COURSE GUIDE	.80	
5003-00-131		INSTRUCTOR'S LESSON PLANS	3.60	
5003-00-132		STUDENT STUDY GUIDE	1.05	
For Additional Orders, Attach Another Sheet		Total Amount	Enclosed	