THE CARE OF ACCIDENT VICTIMS ON THE ROADS

W. G. ALEXANDER, *Loraine Mine Hospital, Allanridge, O.F.S.*

Automobile accidents it seems will always be with us and we know that the most serious injuries will occur to occupants of vehicles on open roads at high speeds.

There is obviously a great deal of work to be done from the point of view of the prevention of accidents and the prevention of serious injury once the accident has occurred, i.e. better design of cars and better 'packaging' of occupants. I do not propose to discuss this aspect in this paper.

The one thing that can be done from the medical angle is to organize the care of the already injured person thoroughly. It is the individuals who are in a critical state with multiple injuries, or sometimes even a single injury, who are at present dying at the roadside because the arrangements for their care are not integrated.

Roadside Resuscitation

To ensure adequate care of the injured, one must organize from the scene of the accident until the injured person is well resuscitated and in a fit condition for any definitive treatment he may require.

It has been established without doubt that the sooner the accident victim and the expert in trauma are brought together the better are the chances of survival for the patient. On the gold mines of South Africa this has been proved time and time again. It has also been proved in the resuscitation of shark victims.

It is always *delay in the start* of resuscitation that results in death from shock and haemorrhage in the early stages, or from renal failure at a later stage. It must be borne in mind that a patient does not have to be in a hospital or even a house or a shop to be resuscitated. The patient can be resuscitated at the scene of the accident, providing the doctor can get there quicker than the patient can be taken to the doctor. Since some sort of first aid must always be carried out and transport has to be made available, it is invariably quicker for the doctor to go to the accident rather than wait for the injured to be brought to him.

In theory all will agree the above is, on the whole, the ideal. I do not know whether or not arrangements of this sort exist anywhere in the Republic, but there are a number of areas where there is no organization for accidents and lives are being lost solely because of this lack.

Rural Arrangements

Since most high-speed accidents occur in rural and semi-rural areas, the organization in these areas will be discussed first. The basis should be the Medical Association of South Africa. The local executive or representative members in each town or village should make sure that there is someone, and a deputy, in the immediate area who is expert, or who is prepared to make himself expert, in trauma and resuscitation. This doctor must always be readily available, and the police, the hospital and the ambulance driver(s) must always know how to find him. He should have a resuscitation kit with plasma, intravenous equipment, and a few essential instruments. If possible he should have blood readily available to take with him, preferably O group low-titre Rh negative. In cases where it is imperative to give blood, this blood can be given with reasonable safety without a compatibility test.

Roadside resuscitation will probably strike a number of practitioners as being unnecessarily dramatic and embarrassing, but there is no doubt about the fact that numerous lives will be saved if this procedure is carried out.

Objections to the Scheme

There are obvious objections to this organization which immediately come to mind. These include the following:

1. Why not a roster system where a different doctor, reasonably expert in resuscitation, is on call each week? When the accident occurs there may be doubt as to which doctor is on call, with valuable time lost looking for him. A patient with a smashed-in maxilla and mandible needs *immediate* attention to ensure an airway.

2. What if the local expert is not available? (attending another emergency). He is still the man responsible and will best know which of his colleagues can go to the accident or take over his own present emergency.

3. Who pays the expert? This should be the patient or his family. If the family cannot or do not pay there should be some sort of arrangement whereby the Province reimburses the doctor. This may well be, but should not be, the point where the whole system breaks down.

4. Will the doctor not be called out to a lot of accidents where no one is really seriously injured, but everyone has had a good fright? This situation is, I am afraid, inevitable, but is hardly unusual enough in the life of any doctor to call for further comment. Who in any case is better qualified than the trauma expert to decide whether it is fright or serious injury? He can assess and dispose of casualties with confidence and authority.

A big bone of contention at present is that when an accident takes place close to one town or village, but not within the geographical jurisdiction of its local authority, the injured have to be fetched by the ambulance services of a distant authority. Surely the *nearest* help should be summoned. I am sure this could be coordinated by the police to ensure that two different organizations are not called out, since the police are usually the first to be notified. At times one gets the impression that all local authorities and their agents are more concerned with 'Who will pay?' than with 'Can we be of any assistance?'

City Arrangements

In the big cities the arrangements do not seem to me to need many changes. The ambulance services are usually well organized and there is often a telephone within seconds' reach of the accident. The local hospitals have full-time staffs capable of dealing with the injured, and the injured can almost invariably be taken to the hospital far faster than the doctor can arrive at the scene of the accident. If this is not the case then surely it is purely poor administration of a situation that can be made to work extremely well. Another factor is that the majority of urban accidents take place at slower speeds and the victims do not suffer from such gross injuries as those occurring at high speed. For this reason the same urgency does not exist in initiating treatment.

Peri-urban

The peri-urban areas have a problem which is unique, in that they are not part of the city organization, but still have to make use of the city hospitals. Their roads are more open and therefore they have more high-speed accidents. The accidents occur far enough away from the hospitals for there to be serious delays in resuscitation being started. These problems are purely administrative, and are often due solely to lack of cooperation and liaison between various local authorities.

I am sure that the local practitioners with their knowledge of the local conditions will be able to set matters on a proper footing. The important thing is to have the organization. A responsible body should control this and see that it *remains organized*. Whoever is delegated as the expert should willingly accept his responsibility to care for the injured in his particular district at all times.

The fundamentals required are that the medical men must work in close cooperation with the police, the hospitals and the ambulance depots so that, whoever is first notified of an accident, it will be ensured that the expert in trauma is the next person notified. Instances should not arise where an injured person is transported through a small town to a large one only to arrive there moribund or dead, for the sole reason that the ambulance driver or the police did not know that adequate facilities existed in the small town.

Conclusion

To conclude, I hope that this paper, if it does nothing else, will stimulate thought and action that will result in the building up and maintenance throughout the country of a sound organization providing adequate care for the seriously injured victims of road accidents.