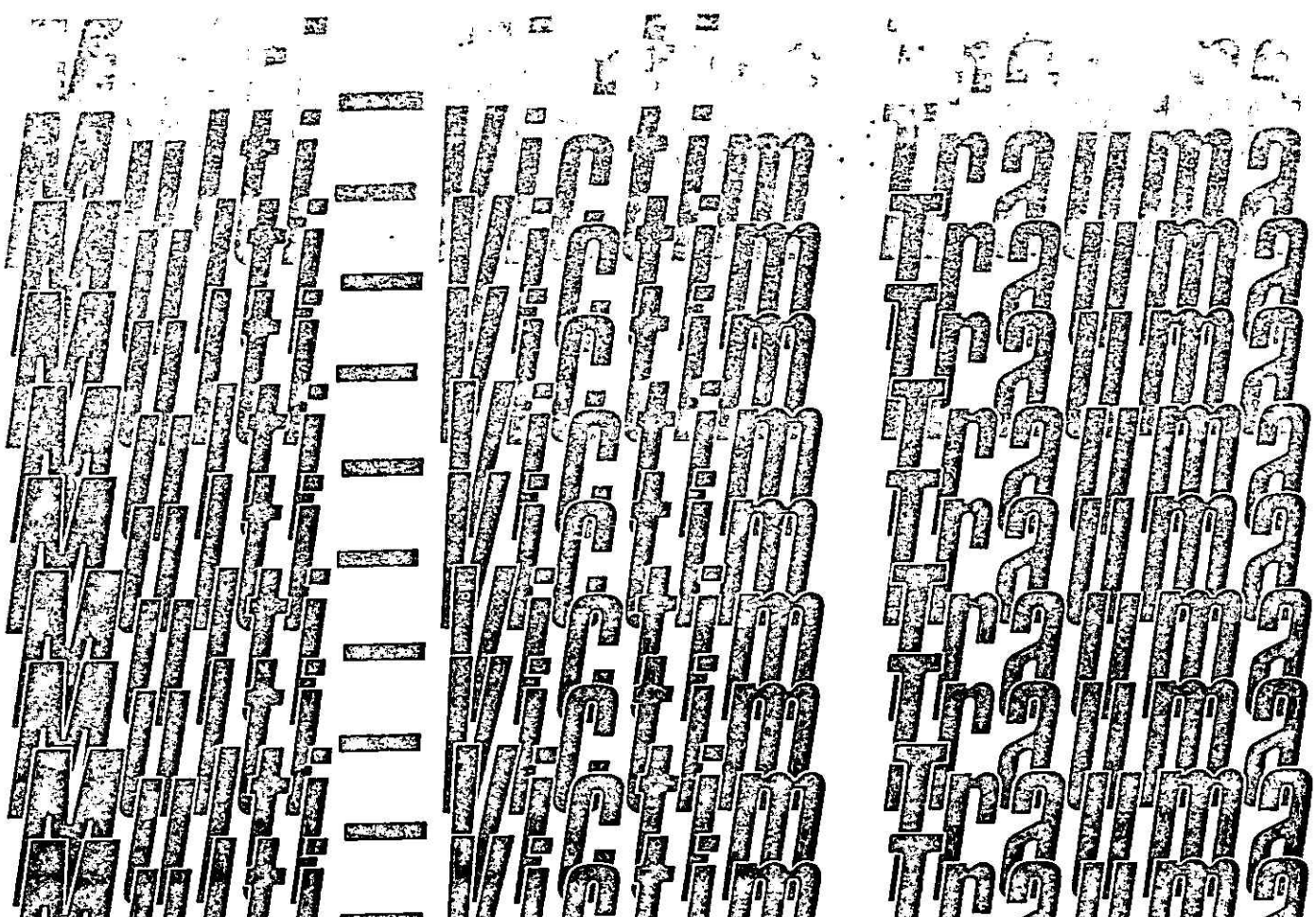

BY MILES JULIHN

Editor's note: Imagine you arrive at an accident scene involving a head-on collision with six victims. What management techniques unique to the situation would you employ? Every month "An Emergency Revisited" will take you through a different situation, allowing you to test your reactions as you read. The author, Miles Julihn, is a paramedic for the Poway (California) Fire Department. He started out as a premed student at San Diego State University where he received his BS in zoology. He joined the Poway Fire Department in 1975 and received his initial paramedic training through the University of California, San Diego, in 1976.

TELEVISION'S "EMERGENCY!" has done much in recent years to educate the American public to the role of the paramedic. For several years we have faithfully watched as Gage, DeSoto and crew have responded to countless emergencies, each one carefully planned and well-rehearsed to achieve its dramatic effect. Those of us in the not-so-make-believe world of prehospital care realize that each call we respond to may be one which challenges our knowledge and professional skills to the limit in order to save the life of another human being.

Each call itself worthy of a television script, these unique calls are often fraught with unexpected problems demanding rapid and creative solutions. How we approach them is all-important to our patients' outcome.

For the moment let us revisit an emergency which has unexpected complications. Test your own skills and knowledge as you encounter each one and resolve it as you think most appropriate. Your decisions will not be easy ones and each closely affects those which follow.

You are notified by the Highway Patrol to respond to an auto accident — no further details given. Your normal response is comprised of one paramedic ambulance with two medics aboard and one engine company with four men. Upon arrival you find two automobiles which have collided head-on. There is severe damage to both vehicles and a highway patrol officer tells you there are six victims involved. As radioman, you are designated to be the triage officer. What would you do first?

a) Set up traffic control to protect the scene
b) Triage all patients to ascertain extent of injuries
c) Request additional equipment and manpower
d) Establish radio communications with the hospital

It is obvious that all of the above are important, and each must be considered by the paramedic team in short order. That there are six victims to assess, however, indicates additional support in manpower and equipment are initially needed.

After examination of the victims you find: one is pulseless and apneic, one has a critical chest injury and is trapped in the car, one has a severe head injury and the remaining three have minor injuries. A second EMT ambulance has now arrived on the scene. Which patient(s) do you treat first?

a) Victim who is pulseless and apneic
b) Victim with head injury
c) Victim with chest injury
d) Victims with minor injuries

The basic principle to follow in triage of a multi-patient incident is to do the most good for the most people. A pulseless, apneic victim is therefore considered a low priority under these conditions unless sufficient manpower is available. The best way to set priorities is to follow the ABCs. Any significant chest injury is likely to interfere with the airway and respiratory efforts, thus this patient is your first concern. You assign your partner to assess him.

Your next priority is the patient with a head injury. Any victim with a severe head injury demands immediate attention. A patient who is unconscious with severe head trauma requires immediate transport. You decide to transport this patient via the EMT ambulance. The patient's neck is immobilized and he is placed on a backboard. What among the following is now the most important instruction to give to the competent EMT attendant?

a) Maintain the airway and assist ventilations with 0_2
b) Monitor vital signs
c) Check for Babinski's sign
d) Observe for unequal pupils

In the above choices nothing is as important to stress as an adequate airway and high flow oxygen. Signs of an extending head injury (i.e., deteriorating vital signs, posturing, unequal pupils, etc.) are important to observe if conditions permit. However, there is still little other treatment to be initiated in the prehospital phase.

You now find your partner who is inside the demolished vehicle with the chest injury patient. Engine company personnel are performing extrication. The patient is a 30-year-old male who is conscious but confused. There is obvious blunt trauma to the chest with paradoxical respirations, and he is complaining of severe chest pain. The abdomen is markedly tender in the left upper quadrant. Vital signs are: pulse 140, respirations 32 and labored, B/P is 106/88. Radio contact with the resource hospital is attempted but there is no response. Of these actions what is the best thing to do now?

a) Inform the officer in charge
b) Quickly troubleshoot your communications system
c) Complete extrication and transport stat
d) Relay information to the hospital via your dispatcher

Communications is the vital link necessary in most systems for paramedic level treatment to be initiated in the field. When communications cannot be established by normal means, alternatives must be considered. But in every case be sure to recheck your equipment for the obvious: wrong channel, antenna not hooked up, low battery, etc. In this case replacing the weak battery brings in the hospital loud and clear.

The order you would least expect to receive after giving your initial assessment is:

a) IV Ringer's Lactate
b) Morphine Sulfate, up to 6 mgs IV
c) Monitor EKG
d) 0_2 at 6 to 8 LPM

Morphine Sulfate is the only suggested order which is contraindicated for this patient. Remember, this drug is a potent CNS depressant and can mask symptoms in a patient with multi-system trauma. In addition M.S. is also a vasodilator which could be lethal to this shocky patient.

The patient is finally removed from the wreckage, but his level of consciousness is decreasing. Your partner gives you new vital signs: pulse 140, respirations 36 and shallow, B/P 70/50. Breath sounds appear to be slightly diminished on the right side. Two IVs of Ringer's Lactate have been started and after 1000cc have been infused, the B/P is still low. EKG shows a sinus tachycardia and the patient's chest is splinted. The hospital team focuses in on his low blood pressure and orders anti-shock trousers to be applied. You decide to:

a) Refuse the order due to the presence of a chest injury
b) Suggest dopamine be tried
c) Apply the anti-shock trousers
d) Immediately transport code 3

Chest injury in a hypovolemic patient presents a relative contraindication when considering application of anti-shock trousers. That is, it is likely to cause an increase in intrathoracic pressure which is undesirable in chest injuries. However, if the blood pressure cannot be controlled with rapid infusion of fluids, the anti-shock trousers are required to save the patient's life. When fully inflated, the trousers can immediately autotransfuse approximately 1000 ml of whole blood from the lower extremities. This produces more rapid volume replacement than an IV running wide open. Also, remember that the anti-shock trousers can be titrated to effect and the abdominal compartment deflated at the first sign of compromised respiratory efforts.

The anti-shock trouser is fastened into place. With only the leg chambers inflated, the blood pressure is stabilized at 90 systolic. In the emergency room, a chest tube is inserted to decompress a pneumothorax. A belly tap is positive for gross blood in the abdomen, and surgery is performed to remove a ruptured spleen.

Quite obviously, it is the careful management of the unexpected which in part determines how well we can provide patient care. Treatment protocols are an essential part of effective patient care, but they are only guidelines. The key to our degree of success will depend upon our ability to think and plan creatively and alternatively. We must constantly reevaluate our strategy as variable factors continue to come into play.

Also remember that the paramedic's on-site judgements are invaluable to the hospital team. They cannot see the patient, nor can they see the problems which the field team may be encountering.

Just a final word and how often we have heard it, but don't forget the basics. Remember that when caring for patients the ABCs are not just elementary, they are essential. By adhering to the priorities of patient management, we shall be able to provide the best level of prehospital care regardless of the circumstances. □