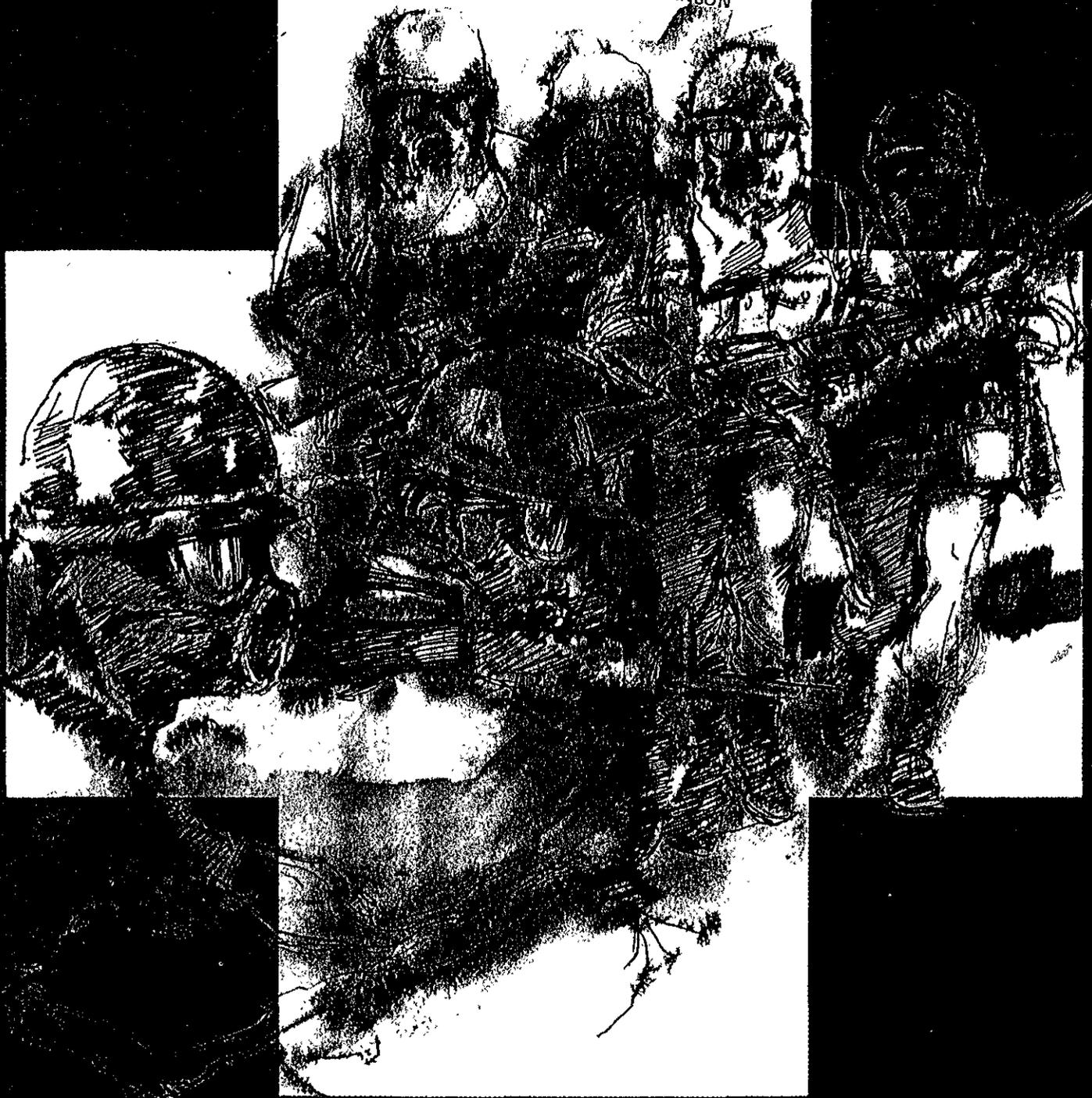


LIEUTENANT COLONEL DAVID E. JOHNSON



THE MEDIC ON THE CHEMICAL BATTLEFIELD

If chemical weapons are used in any future war, it will not be surprising to find conventional artillery rounds mixed in with chemical rounds or to find rapid enemy contact following the chemical attack in an attempt to exploit the unit's confusion and disarray. Consequently, a unit can expect to have a variety of conventional injuries, chemical casualties, and combinations of both.

For these reasons, dealing with chemical casualties will be a special challenge, not only for medical personnel but for unit commanders as well. The unit aidman will suddenly become an especially valuable resource, and he can easily find himself doing jobs that do not make the most efficient use of his time and skill. A commander and his medic, therefore, must work together in advance to determine what the medic's role is to be, what support he will need (and can get), and what effect this support might have on the unit's ability to sustain its operations.

The aidman's basic responsibility to the wounded will not change because of the chemical environment. But that environment, the clothing, and the contamination will all present some special problems. For example, the medic will find giving emergency medical care slower and more strenuous because of the protective clothing that everyone will be wearing. This will only increase the premium on his time. For this reason, the medic's first and perhaps most important task will be to decide which jobs he should do himself and which can be delegated to soldiers who do not have any special medical training.

The medic's chief function must be diagnosis, plain and simple. In that process he should decontaminate the area around the wound of the soldier he is treating and the area exposed by the penetration of the protective overgarment. But he will have neither the time nor the resources to perform even partial decontamination on anyone but himself. This means that others in the unit must take the responsibility for any emergency or partial decontamination of anyone who cannot do it for himself.

Similarly, non-medical personnel must be responsible for positioning protective clothing, administering antidotes, and providing artificial respiration. They must also handle casualties that result either from an adverse response to an antidote or from any psychological stress that might be induced by the confinement of the chemical protective overgarment. For the most part, the effectiveness of self-aid and buddy-aid will determine a chemical casualty's survival. And because of the important jobs the nonmedical personnel must do, the medic's pre-attack job, that of unit training in how to do these things, may be more valuable than any of the worthwhile and necessary things he does later on the battlefield.

But once on the battlefield, and once faced with chemical casualties, the medic, with command guidance, will have to engage in drastic triage procedures in regard to the priorities for his time as well as for the evacuation of the patients.

Throughout this process, too, he must act as an advisor to the commander on medical matters. As the local medical authority, the aidman must be prepared to tell the commander how many of his troops are functional

and to what extent, how long they can be expected to remain functional, and how much help is going to be needed to handle, prepare, and evacuate the casualties.

BALANCE

Accordingly, the medic and the commander must balance the basic requirements of the mission and the swiftest possible requirements of casualties with the accomplishment of that mission. This means that the medic, in designating evacuation priorities, needs to take into consideration the type of chemical agent employed, the extent of decontamination, the presence of other injuries or illnesses, and the unit's missions, both immediate and for some time into the future until individual and unit replacements will be available.

Depending on the type of agent used and its persistence, those exposed may have a period of military usefulness before the onset of symptoms. Conversely, medical treatment in the rear may be a decisive factor in the eventual survival of some. Many others, of course, will not survive regardless of heroic efforts.

Non-chemical casualties can probably be expected to benefit the most from treatment, while making the most efficient use of scarce rear echelon medical services. A partially capable non-chemical casualty, if he can be spared from the unit, is the soldier most likely to be returned to his unit at some time in the future. On the other hand, chemical casualties, regardless of how severely they are affected, once evacuated, should not be expected to return, at least as far as that unit is concerned.

Neither dogmatic treatment nor evacuation priorities can be prescribed in advance, but the following is a list of likely priorities:

1. Moderate to severe non-chemical injuries.
2. Non-injury casualties, such as illness, heat stroke, and psychological stress reactions.
3. Light injuries, regardless of chemical status.
4. Moderate to severe chemical injuries.

A soldier with more than one category of injury would be placed in the lower category. That is, the soldier with a moderate leg injury and no apparent chemical complications would probably be evacuated before one with the same leg injury and chemical agent symptoms.

As to the means of evacuation, it is probably unrealistic to expect medical air evacuation from the battlefield on the scale seen in Vietnam. Even when aircraft are available, the serious problems associated with toxic vapors in the enclosed area of a helicopter will hinder the air evacuation of patients who are in need of decontamination regardless of their injuries. The vast majority of evacuation, therefore, will be by ground vehicle. And because there probably will not be enough battalion, brigade, and division ambulances, a unit commander must decide how many of his organic vehicles and what types of vehicles he can afford to commit to patient evacuation.

Armored personnel carriers may be the most readily

available because, by then, many of their usual passengers will be among the casualties. They may also be the most efficient vehicles to use because they are not as good at hauling ammunition as other vehicles are. But a commander must also consider the difficulties of internal decontamination and what the contaminated vehicle is to be used for later. Using cargo trucks to move patients will cause the least decrease in the unit's fire power, at least temporarily. All vehicles that are used to transport casualties who have not been fully decontaminated, or whose contamination status is unknown, must be considered contaminated for any further activities.

Patients who have not been decontaminated must be wrapped in impermeable material for evacuation. This effort, which is designed to protect other occupants of the vehicle and the vehicle itself, may in fact increase the exposure of the casualty to the chemical agent in his clothing. But the alternative, the potentially uncontrolled dissemination of the agent, is even less desirable. (These procedures should be thought out and planned for before the heat of battle.)

No matter what means of evacuation is used, wounded or ill patients will reach a battalion aid station either contaminated or in various states of decontamination. At this point, two equally correct principles will come into direct conflict: Contamination must not be introduced into enclosed clean operating spaces, but at the same time casualties must be treated and evacuated as quickly as possible. Forceful and intractable insistence on either of these rules will be self-defeating. If the first view prevails, it will lead to the total commitment of decontamination assets to the patient care system. If the second is followed, the medical facilities will be contaminated to the extent that medical personnel cannot function and still protect themselves and their other patients. As a result, some medical care, even if only to play for time, will have to be performed under less than "clean" conditions.

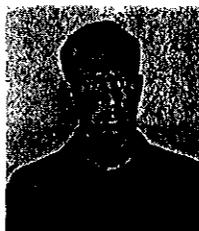
Medical personnel expect a great deal of decontamination support. They expect each patient to be undressed and completely decontaminated, if necessary. They expect contaminated clothing and other material to be disposed of before the patient is brought into a battalion aid station. In addition, they expect contaminated ambulances to be decontaminated before they pick up other patients who may not be contaminated or before they have to traverse uncontaminated areas (for example, for further evacuation to the rear areas). This assistance must come from the supported unit. The arguments for this

use of relatively scarce assets are mainly humanitarian, but they also contribute to the morale of medical personnel and of other soldiers who are potential patients. But other units will also have a justifiable call on these resources to complete their missions, and an unpleasant decision may have to be made. This is another matter that is better considered before the battle rather than after it starts.

In any mass casualty situation, then, but particularly in the aftermath of a chemical assault, the unit medic has three basic roles: He provides individual treatment when it is absolutely necessary; he supervises others in providing that care whenever possible; and he serves as an advisor to his unit commander at all times. In each of these positions, the medic needs the assistance and cooperation of the unit, because it is the unit commander who must decide how much, if any, of the unit's resources can be devoted to the medical care system.

In the first of the medic's roles, that of aid-giver, he needs a constant and well-maintained medical supply line from higher headquarters. In his second position, supervisor, he needs the help of a significant number of people, non-casualties or those less seriously injured, to handle the more seriously ill. In his third role, that of an advisor on what to do next, he needs to know how many people he can evacuate and how soon. His support requirements may include vehicles, people to drive them, and a priority of movement for the vehicles. Finally, the people who conduct medical care operations, from platoon through corps, want and expect the men, machines, and resources they need for decontamination.

Both the medic and the commander will be able to do their jobs better on the chemical battlefield if they both know and understand the roles and needs of the unit medical corpsman on that battlefield. And that is not an understanding that can be left until the last minute.



LIEUTENANT COLONEL DAVID E. JOHNSON, formerly an enlisted medic, is now division surgeon of the 4th Infantry Division at Fort Carson. He earned his medical degree from the University of Minnesota and also holds a master's degree in public health from Johns Hopkins University. He has completed the Command and General Staff College and has published numerous medical works, including "Botsball" in *INFANTRY* (July-August 1981).

