THE FIELD AMBULANCE IN NUCLEAR BATTLE

 Colonel D. L. NICHOLLS
 M.R.C.S., R.A.M.C.(T.A.)

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Those concerned with the direction of our efforts and the management of our military affairs have given an enormous amount of thought to the problems of how the Army should fight the nuclear battle. After 15 years of mental wrestling and exercise wrangling a pattern had emerged with which we are all now familiar. The concept of hard-hitting, highly mobile Brigade Groups loosely grouped and controlled by Divisional Headquarters was cut and dried. More recently, however, this concept has somewhat changed. The tactical unit is now the Battle Group, a force of all arms based either on an infantry battalion or an armoured regiment, commanded by the battalion or regimental commander and depending for its logistics on the Division. The dispersal now covers immense areas, though it is not the task of the Battle Group physically to hold the ground, but to maintain control over it to deliver the major offensive, that is the nuclear weapon. Therefore mobility is now even greater, and Battle Groups may move to new ground several times in 24 hours. With this vast dispersal there may be considerable enemy penetration between Battle Groups, and the whole Brigade Group is constantly threatened from the air flank. Therefore there is no sharp or blunt end; all ends are sharp, and surface communications between Battle Groups or between Battle Groups and Brigade Administrative Area are hazardous, often difficult, and sometimes impossible. The Battle Groups derive self-protection from their high degree of mobility and heavy hitting power, but the Brigade Administrative Area, containing an array of soft-skinned comparative leviathans, huge shelters, and forests of wireless aerials, is on the other hand unprotected and almost immobile. Even though it has its own infantry battalion or armoured regiment, it is a good deal more vulnerable to enemy penetration and the air flank than are the Battle Groups it supports.

How the medical services should operate within this pattern has not yet been satisfactorily solved, either because less thought has been given to it or because it is a much more difficult question. The problems are those of movement, protection and treatment of casualties under the most adverse conditions. In considering the problems of the present or the future, one naturally recalls past methods to test their efficiency in present and future conditions, to retain those which are proved and still fit, to discard those no longer sound, and to develop new ones to meet new conditions.
Past Deployments of the Field Ambulance

Circa 1946, the dawn of the present era and the newly established Field Ambulance. The fashion was to combine sections, usually two, to form a large Casualty Collecting Post (CCP), and to site it with Company Headquarters (Coy HQ) near Tactical Brigade Headquarters. The Advanced Dressing Station (ADS) was usually sited near Main Brigade Headquarters together with the third section in reserve. In fact this deployment closely resembled that of the Infantry Field Ambulance in the last war, and in the present conditions clearly will not do for two reasons.

The first is the movement of casualties. The infantry battalion then had 16 stretcher-bearers, and now has one 1-ton truck available in each Company but no stretcher-bearers. If we assume a conventional battle with say 50 casualties, each casualty has to be carried to dead ground, to a point where the truck can pick him up, or all the way back to Coy HQ. From there he is driven to the Regimental Aid Post (RAP). The CCP has one 1-ton truck with two stretchers to serve each RAP. The ADS has eight Ambulance Cars to serve the CCP, but with the present dispersal of the Brigade Group it would take 36 hours for all the casualties to reach the CCP. By the time they reached the ADS those who survived would require so much resuscitation and major treatment that all would be concentrated in the ADS, and concentration is an anathema anywhere in the Brigade Group Area.

The second is the protection of casualties. Such a concentration of casualties increases the problems of protection. The naive solution to this in 1946 was that since it is impossible to hide an ADS which is at work, then show it for what it is with a red cross. This red cross not only advertises the ADS, but it also confirms the vicinity of a Brigade Group. With it as ground zero a nuclear weapon would gravely upset the Brigade Group battle, apart from solving the problem of the further movement of the casualties. That deployment then is a nonsense in present circumstances, so let us move on five years.

Circa 1951 the deployment unfortunately remained more or less the same, but the problem of protection of CCPs and ADSs was receiving more attention. Dispersal was the order of the day and indeed still is, but in rather a different way, for I remember being told by the Inspector of Training that there should be at least 500 yards between vehicles in the ADS, which necessarily means between each department. Therefore the CCP occupied an area of 1,000 yards' diameter, and the ADS some 3,000 yards. What would be the result? Just as the collection of casualties from battalion areas back to ADS is ludicrously prolonged, so now the flow of casualties through the departments of the ADS dwindles to nothing as stretcher-bearers themselves become exhaustion casualties. Furthermore the ADS has become static and impossible to move. That method therefore cannot be applied so let us move on another five years.

Circa 1956 a new method of improving the movement of casualties from point of wounding to ADS was gaining ground. That was to combine the CCP with the RAP to help with casualty collection forward of the RAP, and to speed up first-aid treatment of large numbers of casualties in the RAP. The idea, however, was (and still is) by no means universally accepted, the argument being that if the RAP is not able to cope with the collection and treatment of large numbers of casualties,
then its establishment should be expanded until it can. One might as well argue that if the Brigade Group is unable to bomb a target beyond its range, then its establishment must be expanded to include Bomber Command. The Battalion Medical Officer and his RAMC staff are quite able to cope with normal duties, and in battle when more hands are required to move casualties the battalion can cope to a very limited extent. If more and specialized help is required, then the Medical Services must provide it by reinforcing the RAP with a CCP.

The fashion, then, was to attach a Field Ambulance Section to each Infantry Battalion (though by no means universally) with Company Headquarters near Brigade Headquarters and the complete ADS in the Brigade Administrative Area. But the problem of protecting the ADS still remained, and a sinister three letter cry was heard. It was “Dig!”, and a rash of mining operations broke out on all sides. At Annual Camp in 1955 a battalion of an Independent Infantry Brigade dug themselves into defensive positions. It took them a fortnight. No Field Ambulance could ever attempt it, because a little mental arithmetic will soon show that in order to dig in the ADS with 18 inches of head cover it is necessary to shift about 60,000 cubic feet of soil or roughly 3,600 short tons. This means roughly 20,000 foot tons of work to be done or about 265 foot tons per man. If one assumes an average man’s capability to be five foot tons per day, it then takes the ADS working day and night nearly two months to dig itself in. If the ADS happened to be sited on rock or even chalk, protection by digging became a nonsense, even if one dismissed it airily by assigning the task to the Royal Engineers. It would therefore appear that in considering our problem of movement, protection and treatment of casualties in the present or future, the methods of the past have become entirely irrelevant. The principles which govern the deployment of the Field Ambulance must be:

No patent concentration of troops, particularly of casualties.
A high degree of mobility.
A wide dispersal of sub-units, but not to the point where treatment and mobility are impaired.
Complete camouflage which inevitably means limited digging.

In the past, though lip service has been paid to camouflage, the object has been defeated by advertising positions with red crosses and impossible mining operations; vehicles have been dispersed to the point where treatment and mobility become impossible, but worst of all troops have been taken from the comparative safety of their widely dispersed and cozy weapon pits and laboriously collected into Advance Dressing Stations, where a variety of medical graduates, ranging from biophysicists to drug-firm travellers, practised surgery in a primitive operating theatre known as Major Treatment.

This, it must be apparent, will no longer do.

The Present Problem

Let us now, therefore, examine the task of the Medical Services and what it is they are trying to do for a Brigade Group. I say Medical Services because the task is not one for the Field Ambulance alone but for the whole of the Army Medical Services. The task is to remove from the Brigade Area all men who are or will be for several
hours or more unable through illness or injury to maintain their functions as soldiers, and further to render them fit to return to their duties in the Brigade Group. The responsibility of doing this ultimately rests with the Director-General, who has a very knotty problem, but to start this process he has put into the Brigade Group a Field Ambulance whose commander is the Senior Medical Officer of the Brigade. The role of the Field Ambulance, together with the resources available within fighting units, is the collection of casualties, and the rendering of First Aid, which is the alleviation of pain and fear, the control of hemorrhage and infection, immobilization, and the replacement of blood loss. These broadly are the limits of First Aid and any further procedures encroach on the field of surgery. Of course one or two exceptions spring to mind; the extraction of a tooth, or the removal of a limb attached only by shreds of tissue. Mainly, however, the evacuation and surgical treatment of casualties are the responsibility of the medical services outside the Brigade Group area and are no concern of the Field Ambulance. The job of the doctors, apart from their duties as officers, is not to waste their time and energy in amateur surgery, but to exercise their skill in resuscitation and prognosis in order to establish priorities of evacuation. With the development of new and more effective forms of transport the means of carrying out this role is now, or at any rate will shortly be, at hand. With the advent of the hovercraft, the helicopter, the rotodyne and the light aircraft requiring very short runways, there is no longer any need to concentrate or hold casualties or to do surgery in the Brigade Group Area.

Bearing in mind the pattern of the new Brigade Group battle very briefly alluded to in the introduction, how could the deployment of the Field Ambulance develop to fit this pattern? I do not postulate a new Field Ambulance. I am aware that the establishment of a Field Ambulance is about to be changed, but although I am referring to the present establishment any imminent changes do not in fact affect my general argument.

First, deployment of the company; since a Battle Group is a force of all arms, it will contain a Section of Field Ambulance. I see no point in carrying casualties from one part of a Battle Group area to another and back again. As I have said in a previous paragraph to divorce the CCP from the RAP is a waste of time and transport. Therefore the Sections should be allocated one to each Battle Group and sited close to the RAPs so that they work together at the same task, that is the collection of casualties from all parts of the Battle Group area. Company Headquarters should be adjacent to Brigade Headquarters. Since it is very small and not self-supporting, it should be part of Brigade Headquarters except when it has under command the reserve section from the ADS, when it could tack itself on to this section at a short distance from Brigade Headquarters, say 1,000 to 1,500 yards.

Secondly, deployment of the ADS; the ADS should be split into four component parts, viz Reception, Evacuation, Major Treatment and Administration. Administration consists of the Second-in-Command, Non-medical Officer, Quartermaster, Quartermaster’s stores truck and the office truck. This should be close to Administrative Area Headquarters. Reception and Evacuation, though they should be self-supporting, should usually be combined to form a Brigade Casualty Evacuation Area, having with it the Transport Officer, Regimental Sergeant-Major, Dental Officer and
Headquarters General Duties Medical Officer. Major Treatment should be left in the Divisional or Corps Administrative Area as a reserve to be flown up when required. If, for example, a Battle Group were caught on the move by a heavy nuclear strike, the Medical Services would undoubtedly require reinforcement. After such a strike there would be a period of considerable confusion and loss of firm control, and the tendency would be for sub-units and individuals to make off away from the centre. It would be against this peripheral movement that enemy battle groups might operate and it would be some time before the position became clarified. It is during this period that casualties would have to be collected and held for several hours. Major treatment and Reception components should then be flown into the Battle Group area as part of the Brigade Damage Control Unit to carry out this task. No doubt the presence of the Company Commander or Field Ambulance Commander would also be required, and at least one of the medical officers should be someone with surgical experience.

Command under conditions of such wide dispersal must now be considered. Medical Services in the teeth of the battle area should be commanded by the Company Commander; those in the Brigade Administrative Area by the Second-in-Command. The Senior Medical Officer (SMO) Brigade should not be directly concerned with the tactical command of the Field Ambulance. He should remain in Brigade headquarters as a sort of Medical Staff Officer to the Brigadier, concerned mainly with the collection and transmission of information and with the co-ordination of the evacuation programme. In parenthesis I might say that in my opinion the Divisional Assistant Director of Medical Services (ADMS) should have nothing to do with the deployment or Command of a Field Ambulance in a Brigade Group. The Brigade Group Units including the Field Ambulance are deployed by the Brigade Group Commander, possibly in the case of medical units with advice from his SMO. In my view the job of the ADMS in peace or between battles is constantly to be badgering the Field Ambulances with regard to training, fitness and equipment, in order to bring them to a high state of efficiency. But during the battle, though he may visit his Field Ambulances from time to time, his job is administration at Divisional Headquarters, particularly with regard to evacuation, reinforcements and supplies.

With the wide dispersal I have envisaged of sub-units of the Field Ambulance, additional means of communication become necessary. The traditional means of communication, that is by ambulance cars going backwards and forwards along the Brigade axis, is no longer possible and the Field Ambulance should have its own wireless sets and its own medical net.

In establishing priorities of evacuation, I should draw the line at four hours rather than six hours within which definitive surgery is or is not required. There are thus two priorities of evacuation. The time limit for establishing the third priority, that is casualties so close to death that there is insufficient time to effect their rescue, must of course vary with the flying time to CCS or General Hospital, but it should be very short indeed.

Finally, it is no doubt appreciated that the methods of waging war in the future will depend very largely on the air flank. The maintenance of Battle Groups and Brigade Groups may be done very largely from the air, and evacuation of casualties
from sub-units of the Field Ambulance will be done almost entirely by helicopters, rotodynes and light aircraft. In the sort of battle we visualize involving frequent rapid moves, and where every move is a crash move with little or no preparation, casualties become an embarrassment, not only to the Field Ambulance, but also to the Battle Group and Brigade Group commanders. A very few still in Platoon or Troop positions may be moved with their units, but evacuation from Field Ambulance sub-units must keep pace with casualty collection, not from any consideration of humanity and expediency, but entirely on account of the efficient conduct of the battle. It has been suggested that casualties could be evacuated by aircraft returning from delivering supplies. This is a quite intolerable conception. Casualties cannot be dependent on supply transport. This was established very early in the history of the Army Medical Services when it applied to horse-drawn transport. Merely because transport has taken to the air is no reason to alter the principle. Casualties must be evacuated at once, and this requires a constant shuttle service of aircraft allocated to medical use only. There is of course no reason why such aircraft should not carry stores forward, indeed this was frequently done by ambulance cars in the last war, nevertheless the Army Medical Service must have its own air ambulances.