of the civilian authorities in its ideas and projects. The Field Training Centre has every reason to face the future with confidence and hope that it will continue to fulfil its vital role with growing strength. It must remain the necessary link between the Regular and the Reservist; it must continue to play its part in the evolution and design of future field medical units and to disseminate information. The chief problem of future years will be to find new ways and means of meeting greater tasks with smaller resources and in this, too, it must not fail.

THE NEW TRAINING

BY
Royal Army Medical Corps

The French practise it; the English talk about it; the Americans cause inquiries to be made into it!

The above statement may be true in another sphere of activity, but is not applicable in the field of mass casualty management. For it was publicly acknowledged at the S.H.A.P.E. Medical Conference in 1958 that the British Army medical services have given the medical services of the N.A.T.O. nations a practical lead. Demonstrations of our method for providing support treatment to seriously injured patients have met with unqualified praise from both civil and military authorities. What are the principles upon which it is based?

Once it is accepted that the enormous numbers of casualties occurring suddenly at one point in time will overwhelm the capacity of the specialist services available, it is clear that the period between wounding and surgical intervention may have to be increased beyond the accepted optimum perhaps by a factor of 24 or more—i.e., eight hours will become eight days. During this time the patient must be sustained and, if possible, made fitter for operation.

At the same time the qualified nursing cover available to sustain these patients will also be proportionately swamped. Thus skilled nursing procedures must be delegated to the lower grades of nursing orderly and even to other tradesmen in the medical services.

It is therefore a question of determining what these delegated skills are to be, and how they are to be taught. Fortunately, as soon as definitive treatment is withheld, many of the delicate decisions relating to differential diagnosis and to individual patients' needs also go. There are five broad groups of patient—injuries to limb, head, chest or abdomen, and burns. When one resists the temptation to overtreat these categories, it becomes evident that their requirements fall under two main heads.

The first is their "physiological care"—food, water, shelter, warmth, cleanliness, comfort and removal of excreta. If to these are added the recording of basic data—temperature, pulse, respiration and blood pressure—one has covered the procedures that are the common need of all patients.
The New Training

The second covers the special requirements of different cases. Luckily again, there is a limit to what can profitably be done and some procedures meet the demands of quite unrelated lesions. Thus these requirements are few in number.

By a detailed analysis of the essential tasks, what have become known as the Twenty-Four Procedures have been evolved. The author had the privilege of examining the world-wide reports on attempts to introduce the training of medical personnel in these procedures. The most important and obvious fact was the marked variation in their local interpretation and the need for standardisation of teaching methods, particularly when the skills were practised at team level on specific types of case. Until such uniformity is achieved, anyone attempting to produce ad hoc units to undertake sustaining treatment at short notice will work under unnecessary difficulties. The inevitable smallness of staff compared with work-load must preclude anything but the smoothest flow of activity.

The fact is that "sustainers" have to take on more work than orderlies do in a routine hospital ward and cannot, as a group, be less skilled. The originators of the idea supposed that the skills would be taught by rote and not reason but could scarcely have anticipated the startling development, widely experienced, that procedure training has awakened an active interest in nursing care and a confidence not achieved by conventional teaching methods. For these drills are taught empirically, building up as time goes by sufficient background to satisfy the enquiring mind or to make the drill "stick." Thus we do not have to say with Cassius (Julius Cesar, Act IV, scene iii)

\[\ldots \text{all his faults observed;}
\text{Set in a notebook, learn'd, and conn'd by rote,}
\text{To cast into my teeth.}\]

In point of fact, all soldiers of whatever intellectual level, can master the skills grouped above under "physiological care" and are most likely to do so if taught empirically. At least one third of all soldiers can master the special skills and this is a high enough proportion to meet the case. When men show an aptitude for a particular procedure they can be posted into a ward section where they are likely to be most useful (see below).

Following the successful demonstration of these procedures at the Director-General's Annual Exercise (1957) "Medical Automedon," it was decided to introduce them into the recruits' training syllabus. The first step was to attach "intakes" of recruits, immediately following their ten weeks' basic training, to 37 Field Ambulance for a further two weeks' intensive course on the procedures before joining their units. From mid-December, 1957 to mid-February, 1958, 579 recruits passed through in this way and the training went well. Thereafter this additional training was undertaken at the R.A.M.C. Depot and will continue there until it is integrated this year (1958) with the syllabus for nursing orderly, class III, to become a sixteen weeks' basic training course for all recruits. In this way standardisation will be achieved at the level of the individual, and collective training in units will be made immeasurably easier.

The second principle upon which our method is based is that all medical
units should be designed to provide at short notice standard "field medical companies." These must be trained and equipped to receive and sustain, without any outside help, one hundred seriously injured casualties following a disaster of any kind, for a period of up to eight days.

This sub-unit has been evolved experimentally and has shown its mobility, flexibility and speed of action from both mechanical transport and Beverley aircraft.

Its basic establishment is now well known and amounts to three medical officers, three nursing officers, three sergeants (state registered nurses or nursing orderlies, class I) together with twenty-seven nursing rank and file, and a small administrative element. It is divided into three 33-bedded ward sections, over which the clinical staff can be equally spread. Thus nine nursing rank and file care for thirty-three patients, day in and day out, for eight days; the simplest formula is three men to eleven patients and all team work can be based on this assumption.

For training and planning purposes it has been assumed that the one hundred patients to be sustained are dominantly injured in the following way:

(a) 33 limb injuries (large muscle wounds, compound fractures, crush injuries)
(b) 33 head, chest and abdominal injuries in equal numbers
(c) 34 severely burnt (20-50 per cent body surface).

This arbitrary breakdown neatly fits the ward structure and has a reasonable statistical basis although it disregards the question of multiple injuries. (These can be assessed but are best avoided at this stage.) The figures are useful in allocating training commitments to ward sections and individual medical officers, in assessing required expendable and non-expendable medical equipment, patients' rations and day by day work load in the different wards. It is assumed that patients are segregated by group injury to diminish the number of skills to be practised in any one ward as a routine.

Based on this abstraction it is also possible to evolve a continuum of activity suitable for each ward which, once the patients have been bedded down, will be observed by the nursing staff unless given specific orders by the medical officer, sister or sergeant, who in the meantime are free to give detailed attention to the obviously worst patients.

It is now possible to give target figures for the setting up of such a unit in the field. The experimental unit can set up from tactically loaded lorries and admit one hundred patients in one and a half hours. It takes an extra half-hour if all equipment is to be manhandled from aircraft.

It is difficult to see how the training could be further streamlined to meet this new situation. What can be improved is the equipment available for the job. The two hours preceding the first rush of medical responsibility will be arduous and exhausting and may detract from the steadiness and high standard of the staff, however devoted they may be. Much of this work-load could be reduced by providing lightweight tentage, lightweight beds and less bulky medical and ordnance equipment. These matters are now under active consideration. One
satisfactory outcome of the trial period has been the evolution of simple, standard trays required for most procedures.

It is not possible to forecast how well the scheme would work should the time come. The fact remains that many experienced medical administrators and clinicians in the N.A.T.O. countries are convinced that this first tangible solution is also a splendid one and that the other countries can learn from us.

Walt Whitman has the last word:

I do not know what is untried and afterward,
But I know it will in its turn prove sufficient, and cannot fail,

THE TEACHING OF SUPPORT TREATMENT OF MASS CASUALTIES TO R.A.M.C. RECRUITS

BY

Captain M. J. P. WEBSTER

Queen Alexandra's Royal Army Nursing Corps

One of the most exciting and stimulating ventures in training began in 1957, when, in December of that year, the teaching of the support treatment of mass casualties to R.A.M.C. recruits was introduced. This was the climax of some ten months' intensive investigation and research into the basic procedures to be taught and of work studies on the methods of training, all of which were carried out by a team from 37 Field Ambulance led by Lieut.-Colonel D. H. D. Burbridge at the Field Training Centre, Mytchett.

As a result of these investigations it was decided that the Twenty-Four Procedures of support treatment could be taught on a course of fourteen days' duration, and since December each R.A.M.C. nursing orderly recruit has, on completion of basic training, attended a course on this subject. In the first instance training was carried out at the Field Training Centre, Mytchett, but in March, 1958, it was undertaken by the Depot and Training Establishment R.A.M.C. where it continues.

The teaching staff consists of three medical officers and three state registered nurses (one nursing officer and two sergeants, R.A.M.C.). The numbers on each course vary from ninety to one hundred and sixty men, who are divided into separate groups of thirty—the number best suited to good instruction and the dictates of space and equipment. The programme is arranged so that, as far as possible, a lecture by a medical officer is followed by a practical nursing class on the same subject, and during practical instruction the trainees work in pairs. When conducting intensive practical training of this nature the most detailed consideration must be given to the advance preparation and layout of equipment and all practical procedures must be standardised and whenever possible illustrated by diagrams. It was to these three factors—preparation, layout and standardisation—that most of the work study carried out by the sister tutor was directed.