THE TRAINING OF FIELD MEDICAL UNITS

BY

Colonel F. M. RICHARDSON, D.S.O., O.B.E., M.D.

Late Royal Army Medical Corps

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I.—INTRODUCTION

Modern war calls for the total mobilization of medical and nursing man power. Men and women of these professions in the home country and abroad may all be in danger from enemy action, and must all to some extent keep abreast of current developments in war surgery and medicine; but it is the Army medical officer who must learn more new tricks than any of them. The civilian is probably at work in his own home town or county, battered and blacked-out perhaps, but still Home. The naval M.O. works in his sick bay and in the familiar territory of the battleship, so long as it remains afloat, whatever the changes in the battle. The R.A.F. medical officer cannot play a part in the whirlpool of an air battle, and, whilst his medical reception stations advance as the airfields advance, they still remain essentially the same. The Army doctor, however, must learn to adapt his work to innumerable changes in the nature of battles, fluid or static, and must be able to find his way by day or night confidently and safely around the confusion of the battlefield—and must teach his men to do so too—whether the formation with which he is serving is landing on hostile territory from the sea or air, crossing rivers great or small, fighting and advancing, or withdrawing, in close thickly wooded country, through prepared defensive positions, in villages or towns, in trackless desert or in continental country whose multiplicity of roads and tracks where it may be even more difficult to find one's way than in a desert; or in difficult mountain ranges in snow and mist—often the hardest of all.
It was lucky that there were for most of us during the last war long periods in which we could train ourselves and our men, and could adapt our methods to the lessons learned by those who had been in battle, for I do not think that in the interval between the two wars we were taught enough of these matters.

Experience in five Field Ambulances and a study of the standards of training the men of those units and of men posted to them from other units and from training establishments, led me to believe that the training of other ranks of the Royal Army Medical Corps was not always on sound lines, even quite late in the war. In war, as in peace, recruits must do a lot of parade-ground work and Physical Training, and our men had been well grounded in these, so that field units to which they were posted had the advantage of being able to concentrate on field training. Most of them had been very well taught in such subjects as anatomy, first aid, and nursing, the value of which to their patients should not be underestimated. That few of them had been put through the obligatory tests of elementary training in chemical warfare was luckily of little significance. The serious defect in their training—possibly due to lack of training time—was a lack of knowledge of Fieldcraft and of general military knowledge—e.g. what a division is, how it is commanded and administered, how it fights a battle, and how medical units fit into this picture. Only a man with this knowledge is a really reliable Field Ambulance soldier, able to act on his own and entitled to consideration for promotion to non-commissioned rank in a field medical unit, where parade-ground efficiency is less valuable than knowledge on which a man can base ability to use initiative in unexpected situations. Many were so ignorant of simple fieldcraft that when marching straight into the rising sun they might reply North, South, or West when asked in what direction they were going, and their estimations of distance might vary between five hundred yards and five thousand. These things must be taught and practised, for they do not come naturally to men whose estimation of direction and distance has depended on noting which bus route they were on, and the countryman is often little better than the townsman.

I must say that I was surprised to find that a fully trained member of a Parachute Field Ambulance during cross-country marches in the Palestine hills could not point out by night, or even by day, the direction in which our camp lay. He had not been posted to an ordinary unit because of unsuitability but because he had had a spell of detention, and he was a first class young soldier who soon became a proficient mountaineer and navigator. I saw no reason to doubt his statement that he had never been taught direction finding, identifying points of the compass by the sun and stars, and similar things so essential to a parachutist.

It is comparatively easy for M.O.s and experienced R.A.M.C. N.C.O.s to teach men the technical subjects needed for their nursing orderly qualifications, and even men of a low standard of education can often become expert in bandaging and splinting, since they are often more accustomed to working with their hands than with their brains. It is much more difficult to teach them to
be confident in finding their way around unknown country or around a battlefield, and to use their maps and their heads in any circumstances. Proficiency in navigation and map reading does not come naturally to most of us, and cannot be acquired without constant practice by day and night in various types of country, roads, forests, moors, deserts, or mountains; but that it can be taught to soldiers is indicated by a report on six private soldiers of one of my units who were ordinary volunteers for ski training. They were not specially selected for any reason other than that none of them was a member of any unit team and so could be spared; whereas all other members of the classes at the Middle East School of Mountain Warfare were picked men. The report said “in navigation they are the equal of most officers who have come to us.”

I can think of no good reason for hoping that this article will command a more attentive reading than I gave to similar articles in the golden years between the wars, when I was more interested in purely medical works or in the literature of such pursuits as pigsticking and piping. Mention of the latter pursuit recalls the solemn occasion of my interview as an applicant for a commission in the R.A.M.C. When asked what were my hobbies, a word associated in my mind with fretwork and stamp collecting, which I had long abandoned, I replied “None Sir.” I could see at once that this was a false step, and for a time I felt that my fate hung in the balance. The Corps seemed to be about to be deprived of what I had fondly hoped might one day prove to be one of its brightest ornaments. However, when we had agreed that such sports as golf and horse riding could not be defined as hobbies, I was pressed to reveal what I did with my spare time, and I admitted that I played the Highland bagpipe. “Aha,” said the Scottish inquisitor, “A musician.” “Nothing of the sort,” said the Englishman, “A menace.”

I must bring these discursive and provocative introductory remarks to an end by saying that I hope in this article to pass on some of the lessons learned in various campaigns and in the far longer periods of training during the last war, and to encourage others to do the same. It is probably salutory that there has always been a tendency for our tales of “What we did in the Western Desert” to be received by those who were not there with markedly less reverence than has been accorded by succeeding generations to the tales of campaigns and training in the Sinai Desert told by the Children of Israel. I doubt if anyone jeered at Joshua for having “sand in his ephod.”

Quite recently I read a paper written by my father on the work of Cavalry Field Ambulances in Palestine in 1918, much of which could have been reproduced unchanged in a 1941 Training Directive. Perhaps it was a pity that a paternal government of that day had not thought of the advice to “Ask your Dad.” In this connexion one might recall that at one time Wellington was slightly referred to by the Whitehall Generals as “the Sepoy General.” Desert experience may not be a complete Bible for future wars, but, in the desert, battle technique was certainly reduced to bedrock essentials in many respects. In future wars an open and elastic mind, and a capacity for original thought
untrammeled by too slavish adherence to old methods will be essential, but underlying principles do not change very much, and the lessons of past experience will always be of value.

II.—TAKING OVER A FIELD AMBULANCE

The methods of training to be described are based upon the Field Ambulance which is the most important medical unit in war, and the one in which training in the subjects which are the most difficult to teach is especially needed. We Field Ambulance men always regarded ourselves as the Corps d'élite of the Army medical services in war and, I think, with good reason. From the rifle company to the great hospitals in the United Kingdom the medical services stretch as a closely knit chain. However perfect the final links of that chain may be, unless it is firmly hooked on at the top it will fall to the ground, and as the regimental medical establishments move around with the changes in the battle, too busy to look over their shoulder, it is the Field Ambulance which must keep the hook firmly attached. To vary the metaphor—the most modern well-equipped hospitals is useless in emergency if the front door is locked and its Reception Department in chaos. If the R.A.P.s are the front door to the chain of C.C.S.s and Hospitals, the Field Ambulance is not only the Reception Department, but it must find the faithful porter who is ready to see that the front door is always open and attended.

There are many degrees of urgency in the training of units, and this must be remembered when criticizing and considering some of the methods which are described here. The man who had to train his unit rapidly to fit it to take part in a campaign soon after it was raised may say of some of the methods: "Good Heavens—how could one find time for all that?" He should remember that for many units stationed for long periods of enforced non-operational idleness in some remote desert with few recreational outlets, training was the vital factor in preserving morale and a sense of high purpose amongst all ranks. It was then that one had to rack one's brains for devices to sustain interest, and instead of plugging away interminably at the same old lessons, to make men realize that they might suddenly be expected to take part in a desert battle, in jungle or mountain warfare, or in an opposed landing, or might find themselves prisoners with the problem of escaping and reaching friendly territory without a compass, water-bottle, or food.

If one can make everyone realize that these are problems not only for the C.O. and officers but for every man to solve for himself and for the general good of the unit; and if one can make training so alive and interesting, with constant emphasis on the practical application of all that is taught, then men will not get bored by it, even when one uses a large proportion of a brief period of rest during actual battle conditions to brush up some lessons which have been brought out during the battle itself. Then the unit will be not only keen and efficient, but contented and inspired by that esprit de corps which can only spring from the knowledge that one is a member of an efficient and
well-led unit, and one which is valued and trusted in every emergency by one's combatant colleagues.

Our men must be made to realize that for every man who fights the enemy many are needed to sustain him. They must be taught how vital are the medical services to the preservation of high morale which rates as second to nothing as a battle-winning factor. They must know how they fit into the team of the formation with which they are serving, and must be made to realize that only troops who have never seen a battle would underestimate the value, and indeed the valour, of the many ancillary troops who do their work under fire and without the stimulus of active combat. We know how proud of themselves and of their units Field Ambulance men become when they have been tried in battle. This pride, and this attitude to our work, must be deliberately taught and fostered during training.

PRELIMINARY SURVEY OF UNIT ADMINISTRATION

Here it may be helpful to imagine ourselves in the position of a C.O. who has just taken over a Field Ambulance, and to suggest what may be his first steps in ensuring that its organization and training are on sound lines. Remembering that from the moment that he assumes command he will be held responsible for any losses by fire and theft, and for the hundred-and-one little things by which a unit may incur the displeasure of the higher command—and it is surprising how often such things crop up within a few days of joining—the new C.O. will certainly want to spend a few days investigating the administration of the unit and discussing with the second in command the way in which he likes things to be done. Although no amount of training can make a unit truly efficient unless its own internal administration is good, a detailed consideration of these matters is outside the scope of this article. Only an outline of the points to which attention should be directed is given here.

WELFARE OF OTHER RANKS: PROFESSIONAL, PERSONAL, AND SOCIAL

Is a unit seniority roll maintained, and some means by which one can readily see when men become due in terms of length of service for upgrading, so that arrangements can be made to complete their training in time?

A large board may be kept showing the dates on which trade tests are to be done. Men on special jobs or on detachment must not be overlooked, and when men leave the unit on posting full details of their standard of training and of the dates when they become due for trade tests must be sent to their new unit. A seniority roll is important because, although in wartime one tries to promote those who are best suited for the job, it is only fair when there are a number of apparently equally well qualified candidates for promotion to take seniority into consideration.

A list of potential N.C.O.s should be kept, and reports on their progress made periodically by officers and N.C.O.s under whom they work.

Is the card index of potential officers (A.F.B. 2624) maintained, and is there a properly constituted unit selection board under the second in Command?
The procedure for selecting potential officers is fully described in the pamphlet “Selection of Potential Officers: 1945”. All potential officers must be tried out as N.C.O.s and it may be found that even if for some reason they do not become officers they make good N.C.O.s.

Is the pay clerk efficient, and are A.B.s 64 properly kept, regularly inspected and balances inserted when notified by the Regimental Paymaster on A.F.N. 1483? This Army Form should be regularly obtained from the paymaster, and men given an opportunity to comment on their balances. A.B. 64 should be carefully checked when a man is posted from the unit.

Is the unit welfare officer active and in close touch with the Divisional Welfare officer—the D.A.A.G. (Welfare)—does he visit detachments, and can men easily get in touch with him? Is the comfort of men’s billets, etc., of the highest standard attainable in existing circumstances, and not less than that of other units including Brigade Headquarters? It is certainly important from time to time to subject men to very vigorous living conditions lest they get soft but if, after periods of discomfort on training schemes or in action, they can return to comfortable quarters where they can live a civilized life their self-respect, morale, and personal hygiene will remain on a high level.

Are facilities for indoor and outdoor recreation adequate; do all men get a chance to take part in games, and are attached personnel given equal facilities with members of the unit in all these activities?

Are arrangements good for men wanting private interviews with the C.O. or other officers? Usually this is very satisfactory in medical units in which the officers, being mostly doctors, are experienced in giving advice on personal problems, and well aware that men with unrelieved personal worries are likely to do bad work, to get into trouble, and to be “accident prone” if drivers. Do men understand the difference between personal problems and official grievances, and is the proper method of seeking redress of the latter understood, and the provisions of Secs. 42-43 of the Army Act published in orders at least quarterly? Do all ranks understand the regulations governing compassionate leave, and is ordinary leave properly administered, a roster kept, and men given adequate warning of the probable date of their leave?

Are padre’s hour, church attendance, and moral and spiritual welfare in general satisfactory? Under this heading might be included the desirability of lecturing to men on sex rather than venereal disease with the aim of helping young men to adapt themselves to the claims of sex, just as good man management aims at adapting them to the claims of society and of occupation. Alfred Adler postulated the need for the well-integrated personality to be adapted to these three things and in the November 1948 number of this journal I suggested how this could be done, and how it should help to make an Army mentally healthy and less prone to the incidence of war neuroses.

Is propaganda on savings adequate, and is the Army Savings Association well supported? Even if it is not it does not always mean that men are not saving, as many do so by means of an allotment to relatives who invest the money for them. Are arrangements for mail good, and are the provisions of
Kings Regulations paras 1628 to 1631 observed, and is the Post Orderly a really good man for his responsible job? You may be very badly let down if he is not.

What is being done about education and current affairs, etc.? The unit education officer should be assisted by a unit education committee, and in addition to educational and current affair periods during training there should be encouragement and good facilities for men who want to improve their education in their spare time, including a Quiet Room for them to work in, books, etc. All men should know that it is part of the unit education officers' duty to help them with advice on resettlement in civil life, and that he is provided with pamphlets to guide him in this important activity. Good facilities also exist at present for men to take correspondent courses at advantageous rates. An information and news room should be organized as part of the education programme. Education should be of a high standard in medical units as a high proportion of the officers are University graduates and so presumably well able to learn how to teach. The subjects which our men have to learn demand a fair standard of general education. Handicrafts are a branch of education, and men who are good at that sort of thing are very useful in a field medical unit.

Are the institutes, canteens, etc., comfortable, properly run, well patronized by the unit, secure against robbery, and are the staff quarters hygienic? Are all ranks aware of how P.R.I. money is spent? A statement of receipts and expenditure and of the amount of NAAFI rebate should be displayed on the Institute notice board, and the quarterly balance sheet should be published in unit orders, in accordance with regulations.

No single factor under this heading of Men's Welfare is of greater importance to the comfort and well being of a unit than is messing. Samuel Pepys said of sailors that "to make any abatement...in the quantity or agreeableness of their victuals, is to discourage and provoke them in their tenderest point, and will sooner render them disgusted with the King's service more than any other hardship that could be put upon them." It is not necessary to go into detail here since all medical officers are taught how to supervise this aspect of the soldier's environment. The C.O. should see the Minutes of the Messing Committee and satisfy himself that it meets often enough, that its members are changed from time to time, and that the men are satisfied that they are adequately represented on it. The Quartermaster, incidentally, should preferably not be a member of this committee, though he may attend its meetings in an advisory capacity provided that he is not allowed to prevent any suggestions made by members from being recorded in the Minutes on the grounds that they are impracticable. It is for the C.O. to decide whether or not suggestions can be tried. A most important section of the Messing Committee's Minute book is that for the recording of action taken. A very intimate liaison with the Divisional Catering Advisor is of inestimable value, and if he is treated as a most important ally the unit will secure for itself the help of the Army Catering Corps. The avoidance of food wastage, economic disposal
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of swill, fuel economy, proper accounting for rations, and the supervision of cook’s qualifications, their upgrading, etc., are all points of importance.

Are officers’ and serjeants’ messes properly run, rates of messing and subscriptions reasonable, mess meetings held regularly, etc.?

OFFICE ADMINISTRATION: SECURITY

Are all offices well run, supervised by the unit Security Officer; have all clerks read the Official Secrets Act and King’s Regulations paras. 1659 to 1670 and are the provisions of these regulations enforced? Are Officers’ records up to date; the War Diary properly kept, and minor offence reports checked with with conduct sheets? Are clerks being trained, and do they get daily exercise and reasonable time off? See the parade states and decide if the number of employed men is reasonable, and try to determine how many of them dodge training, and whether they are being trade-tested. It is important that the number of men employed as billet orderlies, pickets, night guards, in stores, etc., should be adequate for efficiency and to prevent robberies, but if the number is excessive training will be interfered with and men’s nights in bed reduced.

Are there proper arrangements for ensuring that officers, and W.O.s and Sjt.s too when necessary, read important letters, orders, and instructions. Are typewriters carefully used and maintained, and used only for official work? Since typewriters get knocked about on active service it is very important to have a list of people who are permitted to use them, and to make it an offence for anyone not on the list to do so.

Are unit standing orders good? If the new C.O. as a result of his probe into unit administration decides to add to or to rewrite them the necessary new orders can be published piecemeal in Part I orders until time allows of the production of a complete revised issue, which should preferably be neatly bound in a file cover. Too often standing orders consist of an untidy collection of sheets in which men are warned that various public houses in stations and even in countries, which the unit has long since quitted are out of bounds; or in which they are referred to innumerable orders and publications which they have no opportunity of reading. They should be so framed that they do not become out of date on change of location, or at least need only the revision of certain appendices; and rather than being a rehash of other orders they should have a personal note, and reflect the C.O.’s policy on certain matters, including the methods of running medical posts, etc. A special section dealing with Duties on Active Service is very useful and will be referred to later on. Are the various public funds properly administered, and is the unit in possession of the pamphlets “Notes on the Prevention of Fraud,” “Notes and Instructions on Keeping the Accounts of Regimental Funds,” “Notes for the Guidance of Officers Concerned in the Audit of Regimental Accounts,” and other important pamphlets?

See the latest reports of any inspections by the Inspectorate of Army Equipment, and the Inspectorate of Mechanical Transport, and see if action
has been taken on all their recommendations. Careful study of these reports will provide a very useful insight into the general administration of the unit, and may point to many things which should be covered by Standing Orders.

It is not unusual to find that one officer, often a non-medical officer, is doing many jobs, such as Messing, Sports, Education, Welfare, Entertainments, Passive Air Defence, and Fire Officer. Such jobs should be distributed amongst all the officers, and changed about occasionally so that all officers are drawn into the life of the unit, and eventually become interchangeable. It is especially important that medical officers should not be employed solely in professional duties, and that they should realize that it is a great privilege, pleasure, and source of unending interest, to have men of their own to care for personally as well as medically. It is a good plan to show on a notice board in the information room a list of the officers doing the various jobs with details of the kind of advice which they can give.

**QUARTERMASTER'S DEPARTMENT**

See the records of the last stocktaking board of Q.M. stores and ledgers, and note what action has been taken to deal with discrepancies and deficiencies. See if the stores are well laid out and secure, and the method of drawing stores a good one. If the unit has accommodation stores these must be kept separate from its A.F.G. 1098 stores. Check the system by which the quartermaster satisfies himself that all stores issued to sub-units, billets, etc., are correct and properly accounted for, e.g. by monthly certificates. Are boot and equipment repairs satisfactory? Is there any accumulation of surplus stores, or are there deficiencies of things to which the unit is entitled—if so see the indents for these. Is there evidence of close and friendly liaison with the Ordnance authorities? E.g. visits by the Brigade Ordnance Warrant Officer, or the C.R.A.O.C. at which outstanding indents are checked. Look into the arrangements for salvage, for in war this is not just a matter for the Quartermaster but for an all-out unit drive.

The Quartermaster should accompany the C.O. on his first inspection of the unit's accommodation, at which, in addition to studying the cleanliness, adequacy, comfort, ventilation, washing, bathing, and drying room facilities, etc., careful note should be made of whether every man has his proper entitlement of bedding and that all bedding is aired regularly, blankets washed occasionally, and if paillasses are in use, that they are changed regularly and fresh straw provided. Have inspections of accommodation been regularly carried out and action taken on notes made at such inspections: are distribution lists of accommodation stores held in every room and accommodation stores inspected monthly in accordance with K.R. para 1339?

Barrack damages should be assessed as they occur and not left to mount up until no one can be held responsible for them.

This visit will be a suitable time to look at Firefighting equipment. Fire orders should be in every room and store, an officer should have been appointed
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fire officer, and two N.C.O.s trained in firefighting so that they can train fire picquets. Liaison should have been effected with the nearest A.F.S. unit.

Is the Quartermaster active in securing all that the unit is entitled to, and is his department animated by a co-operative and friendly spirit, or does he rely for his success on an ability to say "No" to all requests and suggestions? In a medical unit the Quartermaster, and indeed the whole administrative staff, exist to serve the needs of the technical staff, and to ensure that they can carry out their professional duties unhampered by shortage of medical supplies or by any manifestations of "red tape." If a doctor has to be told that he cannot have something which he thinks that he really needs, he should be told so, not by the Quartermaster, but by the C.O., after due investigation. This attitude is not always adopted even by otherwise excellent Quartermasters—indeed the best hospital quartermaster's department which I have ever seen, although it deservedly won the highest praise from all inspecting officers, was roundly cursed by doctors, sisters and patients on the occasion of the weekly linen change, when in order to ensure that nothing was lost the wards were put to extreme inconvenience and discomfort, the avoidance of which by achieving one of the main objects of hospital administration—the comfort of patients—was surely worth the price of an occasional lost sheet.

Medical Hygiene and Sanitation

Nothing much need be said under this heading except to observe that the O.C. of a Field Ambulance will find it hard to be an effective medical adviser to the Brigade Commander unless his own house is in order in such matters as the general health of his unit, absence of venereal disease, excellent unit and personal antimalarial discipline, full protection by vaccination and inoculation, health inspections, bath books, and first class sanitation of camps and billets. As to health inspections it is proper to hope that with progressive improvement in our soldiers' personal hygiene and sense of good citizenship the day will come when this invasion of their privacy can be dispensed with, but in war that enemy of armies in the field, the louse, is no respecter of persons.

Mechanical Transport

Although this has been left to the last it is impossible to exaggerate its importance. If the transport has recently been inspected by the I.M.T. or I.A.E. the C.O. has a readily available guide to the mechanical condition of his vehicles, to the general administration of his Transport section, and to the competence of his M.T.O. He should see A.B.s 406 and 412, vehicle kits lists, work tickets, accident report forms. "Standing Orders for Drivers of Mechanical Vehicles (Wheeled) and Motor Cyclists," "Inspection and Care of Army Vehicles," and should satisfy himself that drivers carry the proper documents at all times and that their vehicles are in good running order and equipped with proper accessories, tools, etc.; that all vehicles, including those on detachment, are regularly inspected; and that daily maintenance tasks are carried
out and recorded in A.B.s 412—the daily task indicator being shown in a prominent place and the daily task published in orders.

It is important that the C.O. should see A.B.s 406 regularly, and when recording his comments in these, which may with advantage be done in ink or pencil of a distinctive colour, he should record praise where it is earned. All vehicles must be properly marked with clean divisional and unit signs, the red crosses on ambulances kept clean, and tyre pressures painted on mudguards.

If he wants to avoid a bad report on the turnout of his drivers he should see that all of them have overalls and that the wearing of these whilst doing maintenance is a standing order.

Petrol, oil, and lubricants must be safeguarded against fire and theft, and properly accounted for.

All these points can be safely left to a good M.T.O. but of equal importance is the spirit of the R.A.S.C. members of the unit, and this is a matter for the C.O. himself. Medical units are singularly blessed in that their transport is in the safe hands of the R.A.S.C., as a result of this happy arrangement the transport of Field Ambulance is often the best in the division for the maintenance, convoy discipline, and general efficiency. Despite this, however, it is not uncommon to hear Field Ambulance commanders say that most of their troubles come from “the Transport,” and this is unfortunate and often largely unnecessary. It is inevitable in war that many men are set to tasks for which they have little enthusiasm, and this is sometimes the case with R.A.S.C. men posted to medical units. Many of them would prefer to serve in purely R.A.S.C. units, and it is surprising how many of them prefer to drive the really heavy vehicles, despite the apparently harder work involved. R.A.S.C. members of Field Ambulances must be given a sense of the supreme importance of their work, as members of the senior Corps (if we exclude the one Sapper) in a mixed unit whose task is largely Transportation, and transportation of the most valuable cargo with which the R.A.S.C. are entrusted in war—human lives. Recognition of the senior status of the R.A.S.C. can on occasion be more than mere lip-service. At ceremonial parades of the unit they, as the senior Corps, should parade armed on the right of the unit. They can be told that once plans have been made and battle joined the success of the system of evacuation and the good name of the unit will often lie in the hands of a dispatch rider, or ambulance driver, and that therefore they must take part in a great deal of the training of the unit, and must have an intimate understanding of our work and of the methods by which we propose to discharge our function. I often emphasized this point by telling new drivers that a Field Ambulance might conceivably be better off if it had bad doctors and good drivers than if it were the other way round, since the worst of doctors might in the course of his career lose at most one or two lives by his badness—the human body being very tenacious of life—whereas a bad driver could lose them by the busload in any battle. It is a good plan to ensure that all R.A.S.C. men are good first-aiders
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and, if time allows, to train most of the R.A.M.C. to maintain and drive vehicles, so that ambulance orderlies on detachment can help their drivers when they are tired or can take over from them if they become casualties.

Never must the R.A.S.C. become a sort of "private army" within the unit. They must be loyal and proud members of the unit in every way, whilst of course encouraging the usual friendly rivalry in smartness, in games, and so on between the various sections of the unit.

One must not forget that, as the daily life of the unit depends on the use of transport, and as ambulances are perpetually in use, and daily maintenance is never ending, the R.A.S.C. men are often the most hard-worked men in the unit. Even during rest periods in battle when the R.A.M.C. men may be relatively idle, they are still hard at it. Thus due consideration must be given to relieving the R.A.S.C. from certain fatigues which might otherwise be their duty—e.g. construction of tracks and improvement of entrances to camp, etc.—and to ensuring that they get as much rest as possible. They will naturally be alert to detect any favouring of the R.A.M.C. in the allocation of billets, etc., and they have if anything the stronger claim to such favours. In dressing stations one must have rest rooms for drivers, and give them tea and eyebaths in dusty weather, which helps to prevent eyestrain and conjunctivitis, and relieves fatigue.

This service should be extended to the drivers of all vehicles which visit the Field Ambulance. In Eritrea, where we depended very much on the use of B. vehicles returning empty, whilst the driver was waiting to see if we had a load for him he was given a cup of tea in one hand and an eyebath in the other. The freshening effect of this simple practice was quite amazing. To send drivers on their way without undue delay may be very important, but if they cannot be rested they can at least be refreshed, and anything which can be done in this way will be of real benefit to the formation with which one is serving. Incidentally I found that this attitude fostered good relations between the Field Ambulance and other units, and ensured that they in their turn did what they could for us. The R.A.M.C. are unlikely to resent any apparent pampering of the drivers, for they are quick to recognize that whilst the drivers must maintain their vehicles we must maintain the drivers. They will not in any case be long on active service before they realize how much we depend on the R.A.S.C. not only for the efficiency of our units but for our own personal comfort. With good drivers and sound convoy discipline the rations always arrive on time, we get to our new location before nightfall and can shake down in our billets or bivouacs confident in the knowledge that the cooks lorry has arrived and that dinner is cooking; and that we will not need to get up tomorrow an hour or so too soon in order to let the transport get ready for the day's move. The list of our dividends for anything we invest in fostering good transport work could be considerably extended.

Whilst he is looking at the transport the new C.O. may study the loading tables, and the method of stowing the loads on the various vehicles, which must allow essentials to be readily got at at all times and especially when on
the move. The essential things for the function of the section which uses the lorry are loaded last so that work can continue up to the moment of raising the tailboard. I do not propose to give sample loading tables, as it is best for each unit to work out its own. Unless the loading tables are basically unsound it will be best to avoid the confusion which would result from changing them. During the war there was a tendency for Field Ambulance transport to be overloaded partly because transport was apparently allotted to these units according to the weight of equipment to be carried without considering its bulk, and without any recognition of the fact that Field Ambulances had to carry many things in addition to their official equipment, such as part of the divisional reserve of stretchers and blankets, latrine seats and screens, extra rations for staff and for patients for a varying number of days, and a reserve of petrol and lubricants for one or even two hundred miles if so ordered by formation headquarters. During winter campaigns they had to carry two-man bivouac tents, extra blankets and warm clothing, heating stoves and their fuel. It might be remarked in passing that two-man bivouac tents if folded and placed under the feet of those in the front seats are as good as the sandbags often put there for protection from splinters in mine accidents. These extra loads have to be carried by other units, but their case is hardly parallel to that of Field Ambulances which have to provide for their patients as well as for their own men. In any case infantry battalions were often not expected to move in their own transport, whereas Field Ambulances were expected to do so. In addition to extra things which a Field Ambulance may be ordered to carry there are many things which they must accumulate if they are to be really efficient, such as day and night signs, and welfare and Red Cross supplies for both staff and patients—e.g. boxes of books and wireless sets. As units vie with one another to provide luxuries for their patients these things tend to accumulate, and the C.O. must be ever watchful against an undue accumulation of luxuries.

For the Sections and for each part of the A.D.S. detailed plans and loading tables should be prepared for moving with a limited scale of transport, so that, for example, in an advance in which only small vehicles such as jeeps or 15 cwt. trucks can be got across temporary bridges or in which part of the unit may have to use animal transport, or in a withdrawal in which vehicles have to be abandoned, the essential things can be carried forward and non-essentials can be relegated to a B Echelon, or jettisoned. An Appendix to Standing Orders containing orders for a move by rail or ship, and showing the cubic capacity of the equipment, is a useful precaution against a sudden move.

LIAISON WITH NEIGHBOURING UNITS

During the first few days the new C.O. should visit Divisional Headquarters, Headquarters of the Brigade Group to which his unit is affiliated, and the C.O.s and medical officers of all its units. The C.C.S. which normally serves the Division should also be visited, as it is essential to keep in close touch with both the administrative and the technical staffs of that unit. It is pleasanter
all round if the two units can deal with complaints themselves, rather than let A.D.s.M.S. and such-like people find out about them; and if relations are cordial there will be no hesitation on either side about making complaints or suggestions and acting upon them. It is important for the Field Ambulance to ensure that the type of early treatment given in its Dressing Stations, whilst in accordance with the directions of the Consultant Surgeon of the Force, also takes note of any personal preference of the C.C.S. surgeons. Neighbouring general hospitals may be visited as Field Ambulance officers may want to attend there to brush up their clinical knowledge, and other ranks to obtain higher nursing qualifications. Of course, unless the Field Ambulance is part of an Independent Brigade Group, this training would probably be arranged by the A.D.M.S. The standard of training of the Field Ambulance is of vital importance to the Brigade Group, and the Brigade Commander and his staff. C.O.s of units seldom need much encouragement to take an interest in our work, and to give us what help they can. They can include problems for the Field Ambulance in their own exercises, and can provide umpires or observers for purely medical schemes, on which the opinions and criticisms of our potential patients are often illuminating. They can also lend us lecturers and instructors, and arrange for our men to attend local courses, in such subjects as chemical warfare, passive air defence, physical training, pay clerks' duties, fieldcraft, and the construction of an assault course as part of the hardening-up process for active service.

The Field Ambulance C.O. can reciprocate by helping in the training of regimental medical officers and stretcher bearers, and perhaps under the direction of the D.A.D.A.H. of the sanitary, water duty, and antimalarial personnel. The R.M.O.s should attend a fair amount of the Field Ambulance training, and must not be forgotten in connexion with any refresher courses in General hospitals. The more they know of the work of the Field Ambulance the better, for they must be regarded as part of our team. We must give them help in battle, if necessary without waiting to be asked for it, and must relieve them when they need a rest.

I consider it to be important that the O.C. Field Ambulance should control the training of regimental stretcher bearers, and be responsible to the Brigade Commander and A.D.M.S. for ensuring that there is as large a trained reserve as possible, and never less than 100 per cent. If R.M.O.s are regarded as members of our team they will not resent the control of this training by the O.C. Field Ambulance, as S.M.O. of the Brigade Group, and of course the Field Ambulance can help a lot by lending experienced R.A.M.C. N.C.O.s to help with the training done in the Battalion itself. The training of these men should include at least a week's attachment to the Field Ambulance, as this gives them an insight into our work. During active operations when wastage of regimental stretcher bearers was heavy it was sometimes the best plan to train reliefs in a seven to ten day intensive course at the Field Ambulance. If we are to achieve our 100 per cent reserve it will be essential to put many more under training, so that a searching examination may be held at the end of the
course. If a list of those who pass this test, and even more important, of those
who fail, is published in unit and Brigade orders, all ranks will realize that their
stretcher bearers are properly trained men, and not, as is too often the case,
merely a lot of misfits detailed for this responsible job as if for potato-peeling.
This has a good effect upon the morale of the fighting man, and an equally
valuable effect upon the morale of the stretcher bearer’s themselves. The
nature of a regimental stretcher bearer’s job makes him a likely candidate for
war neuroses ("exhaustion"). Their physical fatigue may be extreme, as any-
one knows who has carried stretchers, especially in mountains. They are always
dealing with casualties, many of whom may be their friends. They are exposed
to fire without the elation of combat or the satisfaction of retaliation, and they
cannot throw themselves to the ground when carrying a patient. All this
gradually gets them down, and it is important that any further factors which
might push them towards "exhaustion" should be eliminated. Amongst the
many factors which predispose to that group of conditions is a lack of self-
confidence, a feeling of being a square peg in a round hole. Men who are put
to jobs for which they feel themselves to be untrained mistrust themselves,
and, even worse, they feel that their comrades mistrust them. Sound training
and searching tests of efficiency help to remove this factor. It might be thought
that a better solution would be to provide fully trained R.A.M.C. men for
regimental stretcher bearers, which has been suggested. However another
potent predisposing factor in the genesis of war neuroses is a lack of *esprit de
corps*, and of that family spirit with its confidence in and affection for his
comrades, which enables a man to subordinate his personal instincts of self-
preservation to the communal resolution to face danger and to preserve the
good name of the regiment. R.A.M.C. men “attached” to a Battalion might
lack this important sustaining spirit, unless they were attached to the same
unit for very long periods. They might for this reason be as liable to suffer from
exhaustion as were reinforcements sent into battle before they had been
accepted into the family of the battalion, and absorbed its pride and traditions.

O.C. Field Ambulance must also ensure that every officer and man in the
Brigade has some knowledge of first aid, with special emphasis on the arrest
of Hæmorrhage and the prevention of shock. This is especially important in
armoured, airborne and commando units.

In Armoured Brigade at Alamein we had a leaflet, which is reproduced
below, exhibited on every Company and Squadron notice board and pasted
inside every vehicle. After the battle I was able quite sincerely to say that many
of our casualties owed their lives, not to the medical services alone, but to
their comrades.

PREVENTION OF SHOCK IN WOUNDED OR BURNED MEN

Wounded men die on the battlefield from BLEEDING, and later on from
SHOCK—a condition of collapse due to the wound or burn.

Lives will be saved if not only the medical services but EVERY MAN
FROM FIRING LINE TO C.C.S. act as one team to PREVENT SHOCK.
Main causes of Shock are: BLEEDING, COLD, PAIN, FEAR. so prevention must include the following measures:

**BLEEDING**
STOP THE BLEEDING AND REPLACE FLUID. All ranks should be taught how to stop bleeding. All wounded men need lots to drink—hot and sweet if possible. This is very important in Burns.

**COLD.**
A wounded man may feel cold even on a hot day when you feel hot. KEEP THEM WARM, with blankets, groundsheets, etc.

**PAIN**
Morphia given by M.O.'s orders—a comfortable position and CAREFUL HANDLING will help.

**FEAR**
Wounded men dread being hit again, or being roughly handled. Handle them with great gentleness; make them feel that they are safe and in good hands, and you will help to prevent shock.

ALL NURSING ORDERLIES AND REGIMENTAL MEDICAL PERSONNEL WILL KNOW THESE RULES BY HEART—if combatants do so too they will help us to SAVE LIVES.

**Organization for Training and General Considerations**

Right from the start the proper organization of the unit for its function in battle should be shown on a notice board in the information Room, in the form of a large diagram to which can be added the names of individuals as soon as they have been allotted to their jobs. Diagrams of the unit in the order of march for various kind of moves, and of the layout of the A.D.S. should also be shown. If training is done in groups sufficient periods must be given to the Section officers for training their Sections and learning to work with them; and Sections especially should be formed as soon as possible.

After a period of training when one has been able to observe men's capabilities classes can be formed for various types of specialist training. Ordinary technical training based upon standard courses of instruction for nursing orderlies will be going on all the time, with special emphasis on arrest of hemorrhage, prevention of shock, fractures, burns, medical and surgical nursing in the field, war wounds, and bandaging. Every nursing orderly in the unit must have a fair knowledge of the technique of blood transfusion, and as many as possible should be highly trained in this subject.

Even if the unit is well provided with good clerks it is useful, if time allows, to train as many suitable men as possible in clerical duties, so that one can temporarily replace casualties as they arise. In all dressing stations and casualty collecting posts during battle nursing orderlies with some clerical ability can be of immense value to M.O.s, in completing Field Medical Cards, and A.F.s W. 3210. It is also useful to lend men with such training to hard pressed Regimental medical officers, and this may ensure that one receives their casualties properly "documented." Especially intelligent men may be trained as intelligence clerks, to be able to read maps, operation orders, and intelligence
reports, to mark locations, Brigade and Divisional boundaries, routes, etc., on to talk map covers, and to encode and decode wireless messages. Not only are such men of great value to the C.O. and to Section officers, but the A.D.M.S. may appreciate the loan of a well-trained intelligence clerk. I found it to be a good plan to provide a well trained medical orderly with a first-aid kit for Brigade H.Q. During training it is important to be on the lookout for men with a gift for path-finding, navigation, and map reading, and to train them as ambulance orderlies which is an important and responsible job.

In every unit there are sure to be men who seem to be unteachable, but whether the cause be stupidity or lack of interest one must try to discover and if possible to remedy it, for it is one’s duty to the soldier to teach him, even if he be unwilling. Important though the specialists are, however, we must not overlook the many uses of those whom we may be driven to regard as “Congenital G.D.O.s.”

Many duties which make a great contribution to the comfort, well-being and efficiency of the unit can be entrusted to the G.D.O.s, and one must study their interests and aptitudes just as carefully as those of the potential specialists. Few Territorial Army units before the war were without their almost hereditary sanitary men. These Sons of Dan would have been outraged had they been denied the privilege of spending their annual fortnight in camp in charge of the latrines. G.D.O.s can be trained in the construction of drying rooms, ablution places, and various sanitary structures. Others can be trained to run officers’ and sergeants’ messes, and to act as cooks’ assistants or as batmen. Anthony Armstrong in his definitions of military life, under “Officers” said “See Batmen,” and under “Batmen” “Without these there would be no officers.” The term “Officer’s Servant” should, I think, NEVER be used, and although “batman” is traditional, I think that “orderly” which was largely used in the Indian Army, especially for the “C.O.’s Orderly,” is by far the best title. Especially in wartime, when men join the Army with a high sense of purpose, I feel that a soldier would prefer a title which conveys some suggestion of how useful he can be in battle as a runner and general assistant. It has moreover a military ring about it, and does not imply the status of a valet.

If the unit has not just been raised but has already been trained or even tested in battle, the new C.O. will have to study the lines on which it has been trained, and if these differ from his own ideas, he must decide whether to adapt himself to methods which are not his own, or to make changes. There are more ways than one of achieving the same object, and frequent changes may make men feel that there is a lack of definite purpose in the command. It is therefore advisable, if changes are necessary, to make them gradually, and as a result of experimentation during training, and if possible after free discussion with all ranks of the reasons for making them.

According to the time available before the unit is likely to be involved in action, and according to the new C.O.’s estimate of the state of training when he takes over, he will decide upon which subjects to concentrate, either
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as revision or as new ground, and will have a training programme drawn up.

The construction of a good training programme in which lecture room work, educational and semi-recreational subjects, field exercises, and physical exercise, games, marching, etc., are well balanced, is quite a work of art. It is important to enlist the assistance of as many lecturers as possible from within the unit, and to get members of the Divisional and Brigade staffs, and of other units, to give lectures on their own subjects, so that monotony is avoided.

Training is the C.O.'s personal responsibility but he may confine himself to writing a directive embodying his ideas on the training to be done, and may leave the hack work of working out the training programme to an officer whom he may appoint as Unit Training Officer. Indeed at first he may be driven to this course by his own ignorance of the potentialities as instructors of his officers and N.C.O.s, until he has personally supervised their work.

Certain subjects must be taught to officers and N.C.O.s by the C.O. himself, or by other experienced officers and N.C.O.s; but in general the best method of training them is to make them responsible for the training of their men, under the close supervision of the C.O., and guided by him at frequent discussions of the methods to be followed.

Constant repetition of important points is very necessary if they are to become second nature to the average soldier, and frequent periods for revision and recapitulation are advisable, and "quizzes" at which the C.O. and other officers can estimate how much progress is really being made, and which men need special coaching. However well officers and N.C.O.s may lecture, the results will be disappointing if they do not make constant use of questions, and have quizzes, for these usually reveal that one has failed to drive home some point to a fair proportion of the audience. The individual and collective training of the unit can best be assessed by asking questions at a series of simple schemes in which various forms of medical post are set up, and different kinds of imaginary casualties treated, and imaginary tactical situations created. "Quizzes" and revision periods can be included in a list of "wet weather alternatives," which can be shown on a numbered list, and so laid on quickly when a sudden change of weather calls for a change of programme.

A most important prelude to a period of training is an address to all ranks on the objects of training, which should if possible be followed by free discussion. Up to two hours may well be given to this meeting since it is most important that everyone should know what the main objectives are, and why they are worth attaining. If the new C.O. has decided that there are certain weaknesses he should explain why these are worth remedying, and he may with advantage prove that they do in fact exist by asking questions. If my experience is at all common he will often not get correct answers even when some apparently simple questions are thrown open to the whole audience. What must be explored at this meeting is not technical knowledge of nursing, first aid, etc., which can best be measured at a quiz or revision period, but the extent of general military knowledge, without which men cannot be reliable members of a
field unit, which has to play an intelligent part and to display initiative during active operations. The questions should therefore deal with the composition of a Brigade and of a Division, how they are commanded and administered, and how deployed for battle; with the titles of the principal staff officers, the names and even the descriptions of the present holders of such appointments, and where they are normally to be found in battle; with unit signs and with the rank badges and distinguishing flags, etc., of Brigade, Divisional, Corps, and Army Commanders. To justify expecting a knowledge of all this from every private soldier it may be explained that, however carefully plans may be made, the inevitable confusion of a battle, enemy reactions and unexpected situations, often call for the most junior soldier to act on his own, whether because of casualties amongst his seniors, because he is lost or because he is an ambulance orderly or a driver, who often has to play a lone hand. Every man must therefore know where to report important occurrences and where he can obtain advice, information or assistance, and, if he is not unnecessarily to become a casualty, he must know how to find his way around a battlefield, which he cannot do without some basic knowledge of the formations engaged. Here too one might drive home the lesson that the sometimes almost fanatical insistence of higher commanders upon their cars being recognized and saluted by all ranks, and especially by sentries, springs, not from any mere lust for the outward observances which are due to their rank and appointment, but from the knowledge that a soldier who is so unobservant as not to realize that his General is driving past him may just as easily fail to see an enemy scout-car, or may fail to observe some small sign the reporting of which might avert disaster.

Open discussions on training with a maximum attendance from the unit should be held frequently during the training period; and not less than monthly. At these discussions, and indeed throughout all the training, the C.O. may be unsparing in his criticisms of mistakes, faulty methods, and errors of judgment—provided that he can fully justify his criticisms, and can explain his reasons for recommending better methods. I would emphasize the word "discussion." It is free thought and debate which are wanted, not a monologue from the C.O. Officers and N.C.O.s who have been criticized, and who have perhaps been thinking things over and want to justify their own point of view, must be given free rein, even if the impression might be given that the training is in the hands of a military soviet. It certainly keeps officers and men mentally alert if they know that their mistakes will be corrected with some publicity; but the manner of doing so must not transgress our unwritten law forbidding anything in the nature of a public slight to an officer or N.C.O., to say nothing of the positive prohibition of public reproofs which is contained in King's Regulations. Most of us can be jolted into learning a lot more from a teacher whose methods are positive and soldiers will bestir themselves to increased mental activity if treated with some measure of genial severity. War is a brutal trade and the apprenticeship for it cannot afford to be too gentle. It is surely better for officers and N.C.O.s to lose face during
training than to lose lives during battle. Any hard feelings or unhappiness which such methods might otherwise cause can be avoided by frequently emphasizing that all of us are learning this business of war together, and to some extent by trial and error during exercises, etc. It should be insisted that anyone who disagrees with the ideas or methods of those in authority from the Commanding Officer downwards, should speak up, and be prepared to defend his views, which, if they cannot be shaken and proved to be unsound, may even become the accepted policy of the unit. This attitude is very good for the C.O. himself, since if he willingly lays himself open to attack and cross-examination, he must keep "on his toes," and be perpetually examining the soundness of his views, and the reasoning on which they are based. Another good argument for letting everyone feel that they have a share in shaping the policy of the unit on how it will discharge its functions in battle, is that men will never feel that they are being asked to do unnecessary things or to incur avoidable risks. Once the methods are established everyone must understand them intimately, so that in the "fog of war" one can make reasonable deductions and forecasts of how officers and men left on their own will probably be acting in unforeseen circumstances, and can fairly expect of them a coherent report of what they did and why they did it. Of course any such standardization of methods must not be attained at the expense of the development of initiative. I believe that in the German Army, however blind may have been its devotion and obedience, it was regarded as a graver offence to do nothing than to do the wrong thing. Napoleon said "If success in Battle could be achieved without taking risks, Glory would be at the disposal of very mediocre talent." If one includes in one's Standing Orders a section on duties in active operations it should be stated that this is not intended to cramp the development of men's powers of initiative.

Another valuable way of encouraging men to use their brains is the writing of essays on subjects connected with the unit's role in war. Such essays should be a compulsory part of the training of officers and senior N.C.O.s; whilst for corporals and privates a competitive essay for money prizes is a useful device which not only produces many valuable ideas, but is often of great value as a guide to the selection of really good young N.C.O.s. Training plays in which one illustrates the right and the wrong ways of doing things, afford light relief during training, and give men who have a taste for amateur theatricals a useful outlet. One must be careful in these plays not to overdo the "wrong way," lest that should remain as the enduring impression, which was a special danger in connexion with chemical warfare training in which so much was apt to be learned parrot fashion. This danger can be avoided by writing a part for a commentator who breaks in from time to time during the action of the play to explain the lessons brought out by it.

We come next to a consideration of some actual training methods, after a lengthy preamble which may appear to many to be too long and platitudinous. It does, however, include many things which I have not yet seen in print, and which I believe may be of value.
III.—TRAINING DRILLS

"Now, in Drill the first thing you must never forget to remember is always to step off with the RIGHT FOOT, which is the LEFT FOOT."

With this admonition a somewhat puzzled squad of Gaelic-speaking pipers was launched upon its military career by a very highland pipe-major. Whether it helped them to become better pipers is arguable, but nevertheless the soldier's first steps in learning his trade are traditionally and very properly in the form of drill. The soldier before joining a field unit will have had plenty of squad drill, and a weekly parade, plus the normal morning roll-call parade and parades for lectures, etc., are enough to keep him practised in this. This amount of ordinary drill may best be taken as a minimum requirement, since one must not forget the value of occasional drill parades in the maintenance of a high standard of discipline, without which even a well-trained unit can degenerate into a gang of toughs. Anyone who thinks that a crowd of undisciplined desperadoes might have its uses in war might well consider the comment of a serjeant-major of the Coldstream Guards with whom I discussed this point in the Western Desert in 1941 in connexion with the very high standard of "spit and polish" enforced in the Guards at a time when many units were sliding towards that final state depicted by "Jon" in his "Two Types." The serjeant-major, comparing the Guards with certain units whose fighting successes were as undeniable as was their tendency to lax discipline, said that these troops might be excellent in attack—and so were the Guards—but to be steady in defence, and even in defeat, demands discipline of the highest order.

During the last war the modern conception of drill was considerably broadened, so that it no longer consists of mere automatic "square bashing" and parade-ground manoeuvres, valuable though these may be in the inculcation of discipline. Modern drills, of the type known as battle drill, aim at putting the soldier through the stages of various kinds of operations in a methodical manner, and at teaching him by repeated practice how to act in certain circumstances, so that his reactions become automatic, his actions on the battlefield governed by a series of conditioned reflexes. Thus they aim at ensuring that the stupidest man shall not forget the basic principles but shall do the right thing almost instinctively. Much of the ABC of Field Ambulance work can be taught by drills which aim at covering almost every detail of every possible kind of job which a Field Ambulance may have to do, and at ensuring that essentials are not overlooked, whilst at the same time endeavouring not to cramp imagination and initiative. A consideration of some of these drills may suitably begin our more detailed study of Field Ambulance training.

Some subjects which can be taught in this way are knowledge of the Field Ambulance panniers, tactical loading of Field Ambulance equipment in various kinds of transport, handling of various kinds of casualty, and the laying out and running of medical posts of all descriptions. Once a unit has acquired the drill habit there are few tasks in the preparation for which a useful drill cannot be elaborated.
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PANNIER DRILL

Thorough knowledge of the contents of Field Ambulance panniers, companions, and haversacks, and of exactly where each thing is to be found, and ability to find them quickly and in the dark, are first essentials. Officers must know what is in the panniers; N.C.O.s and men must be able to produce these things quickly.

Early stages consist in unpacking, laying out, and repacking all the contents, and learning about their use. The quartermaster may dislike this practice, as he is apt to be more concerned with keeping his eggs intact than with the art of making omelettes. Although his jealous care of the equipment is prompted not only by pride in his work but by thought for the C.O.'s interests, he must not be allowed to impede training, which demands that every nursing orderly shall know intimately every article of equipment by sight and feeling. Next, instead of going through the entire pannier, individual items are asked for and must be found quickly. This stage can be made slightly more interesting if men are made to learn the various places in which the same thing, such as a packet of compressed wool or a bottle of morphine, is to be found. At this stage too they may learn about the various special preparations which a keen unit usually makes in readiness for an action, and if action is imminent they may assist in preparing such things. Home-made pre-sterilized dressings of various sizes ready packed in cigarette or tobacco tins were found to be very useful. They may consist of a swab for cleaning the wound, gauze or lint for the dressing, and a pad of wool to cover it; and if the tin is sealed with elastoplast strapping this can be used to fix the dressing on the wound. Cigarette tins filled with sterilized vaseline-gauze are useful. Morphine solution can be prepared in rubber-capped vaccine bottles, and widely distributed amongst panniers and haversacks, to supplement the normal AF I 1248 scale.

Finally one should describe everything which a medical officer would need for various operative procedures, such as infusions when he has to cut down on a vein, the passage of a catheter, etc., and see how quickly these things can be found in the panniers, and neatly laid out. In teaching "tray setting" it is useful to draw diagrams on jaconet showing each thing in its place, the advice of a nursing officer will be helpful in this subject.

At this stage any readjustment in the packing of the panniers, which may be found necessary in the interests of efficiency, should be made, even if it permanently disturbs the separation of the AF G 1098 and AF I 1248 scales of equipment. For example, if one wanted to wash one's hands two panniers had to be opened, as the basin and towel were Ordnance supplies, and the nail-brush was in the AF I 1248 scale.

Repetition of various actions until they become automatic is the essence of drill, and so much monotonous repetition of this pannier drill is needed before detailed knowledge of the contents becomes instinctive that steps must be taken to maintain interest and to eliminate boredom. Two sets of panniers can be used and competitions arranged between members of the same or of different training groups, in speed of unpacking and laying out the contents,
and in finding specified items. Individual competitions for prizes can also be organized. Officers with imagination and some knowledge of war wounds should describe battlefield incidents, how the resulting injuries would be treated, and where the things needed would be found. Since it often happens that things must be found from the panniers in a hurry and in complete darkness it is very useful throughout this training to have a period at each drill in which men find things whilst blindfolded. In this way their sense of touch, which is often very well developed in skilled manual workers, can quickly be improved to an astonishing degree.

**Lorry Loading Drill**

The rapid loading and unloading of all lorries carrying technical equipment so that they may speedily depart on a task and be ready to function immediately on arrival is an obviously necessary drill about which little need be said. Most units become very proficient in this drill, and it is, as I have said already, advisable to let Sections work out their own tactical loading tables. They should make their men learn these by drill, which it is advisable to have done in silence as any parade ground drill would be done. Also, it is useful to have the locations of the things clearly painted inside the lorries. Here one might mention the desirability of not keeping all the officers' mess equipment and welfare equipment with Headquarters. A proportion of these should be added to the Section lorry loads, so that the officers in the forward area can at least eat in comfort and the men can have a wireless set, packs of cards, and perhaps a football.

**Shelter Pitching and A.D.S. Layout Drill**

The first step towards efficiency in setting up an advanced dressing station or any medical post is ability to pitch and strike the shelters or tents in use with great speed. During the last war the types of shelter and unit's methods of pitching them and of adapting them for use varied greatly. In one unit, for desert warfare, we used an excellent adaptation of the 30 ft. × 30 ft. tarpaulin in which tubular steel from Salvage attached to the lorry replaced the assorted “goal-posts” then in use by most units. A drill was worked out by which the shelter could be pitched or struck, the latter case including stowage of the tarpaulin on the roof of the lorry where it was battened down under the lorry's own canvas top, in the highly creditable time of three and a half minutes. Teams in Headquarters to whom extreme urgency did not apply, as it did to the Sections, were allowed four to four and a half minutes. Details of this adaption and of the drill are not given here because, although the 30 ft. × 30 ft. tarpaulin is still included in the A.F. G 1098 scale of Field Ambulances, it is better that units should adopt their own methods of pitching it and evolve their own drill. Further it is probable that our method is now obsolete as the tarpaulin will in future be used in conjunction with the penthouses (Shelters, Portable Nos. 11 and 14), which we did not possess. At the end of the war most units were using the 40 ft. × 40 ft. shelters, which they much preferred.
Using our shelter pitching drill, and a drill which we evolved for rapidly laying out the M.D.S., as it was then called, in the desert, we were able to have the whole dressing station pitched, with its signs out and so on, in eight minutes. By that time many other preparations were well under way and we were ready to work in twelve to fifteen minutes.

A standard layout for an A.D.S. on a tent or shelter basis in open country is very useful, and was quite essential in the desert, where at maximum dispersion of 200 yards it could cover a square mile. If the A.D.S. is always laid out in conformity with a geometrical plan which is known to all ranks and prominently displayed on unit notice boards it not only ensures that members of the unit and of the formation soon learn how to find their way around it by day and night, but it saves a lot of time in planning the layout at each new site. In my own desert field ambulance the medical part of the A.D.S. was a circle, the centre of which was the cookhouse; and the administrative lorries occupied fixed places outside this circle. The officer responsible for siting the A.D.S. had therefore only to make a general survey of the ground available, mark the centre with a flag, and wait on the track until the convoy arrived, when he indicated the flag, stated the degree of dispersion if this was not already known, and watched the lorries drive to their appointed places on the well-known plan without further orders. This applied to moves in ordinary road convoy formation. If driving in desert formation the lorries were already in their proper positions, driving over the open desert in such formation that wherever they halted they were in the correct shape of the A.D.S. This gave the C.O., standing up in his car with the whole desert almost as far as he could see alive with his vehicles bucketing over the sand, a delightfully nautical feeling as of the commander of a flotilla at sea.

From the moment that the convoy arrived at the site and the cookhouse lorry drew up at the centre of the circle, series of co-ordinated activities began, and these also must be incorporated in and practised continually in this layout drill. Special men travelling on certain convenient lorries must have tasks allotted to them. Thus men drop off the lorries which will be close to the entrance and exit with signposts which they erect, and with picks and shovels to smooth out or prepare the tracks into and out of the site. Others start to dig slit trenches, to camouflage the vehicles, to prepare stretcher beds and dressing trays, to sign the various sections of the A.D.S., to brew tea, and so on. All this is included in the drill and each task is done always by the same man so that no shouting of orders is needed.

The vital importance of good signposting is very widely recognized, but it was in the desert that one saw most clearly the value of putting out signs immediately on arrival at a site, even before the post was ready to function. Men covered great distances in a day and all the time they were almost unconsciously storing away visual impressions of the few landmarks in that featureless country. If they passed a medical post whilst it was being set up and saw no Red Cross sign they would be convinced for the rest of the day that in that stretch of country there was no functioning medical post; whereas the Red
Cross sign would have done its work and they would have been able to spread the news wherever they went.

At all A.D.S. layout drills pack store procedure should be practised, and it must be known to all N.C.O.s not only to those of the Quartermaster’s department. In fact it is desirable for all Field Ambulance personnel to have some knowledge of the regulations in force about the disposal of the personal kit and valuables of casualties, and to realize that even in the stress and confusion of a battle careful attention must be paid to this, since, however expertly we handle our casualties in every other way, the reputation of the unit will suffer from carelessness in dealing with their belongings. Since it is obviously important for members of a field unit to be as interchangeable as possible, and to have understudies available to replace casualties, it is also useful at these drills to explain the normal clerical procedure and the use of A.F.s W 3118, 3210, A.B. 27A (revised), and any special cards or labels in use for special types of injury. Detailed instruction in the preparation of these documents need be given only to officers, clerks, and men of good standard of education who are suitable for training as clerk orderlies, a type of assistant who can be invaluable to busy M.O.s at R.A.P.s, C.C.P.s, and A.D.S.s in battle.

A subdivision of the drill for laying out the A.D.S. is a drill to teach the various procedures which take place there. This includes reception of the case, a quick appreciation of the best disposal of him, his proper “documentation,” and removal to the appropriate section of the A.D.S. Initial instruction in this can be given in the lecture room by showing on a diagram of the A.D.S. to which part of it different types of case would be sent, and how the best use can be made of the ambulances bringing cases; with a description of documentation and of the method of dealing with kit and valuables. Next N.C.O.s and men should be brought to the blackboard and given envelopes containing slips of paper describing various types of case, or A.F.s W 3118, the proper preparation of which can be made a part of the exercise. Each envelope full of imaginary cases represents an ambulance arriving at the reception department, and the N.C.O. describes how each would be dealt with. Later, when laying out the A.D.S. has been speeded up so as to leave plenty of spare time at such parades, this reception procedure will be practised with ambulance loads of “casualties,” who will be documented and distributed to the appropriate sections of the A.D.S. Proper use of the A.F.W 3210 must be practised and the C.O. should satisfy himself that the A.D.S. clerks know at any time how many cases have been dealt with, and how many await evacuation in the various sections of the A.D.S.

The type of test exercise which may be set is as follows:

(a) Question: An ambulance load of surgical cases, all minor wounds well dressed at the R.A.P. and with no blood soaking through the dressings, arrives whilst the A.D.S. is working under pressure.

Answer: Document them in the ambulance and send them all direct to the evacuation section where any who later seem to need attention can be seen and re-dressed, unless a convoy is almost immediately leaving for the C.C.S., when they should be sent with it.
The lesson to be stressed here is that unnecessary re-dressing or examination of cases wastes time and dressings—the supply of which in the forward area must always be carefully conserved—and may increase any wound shock from which the cases may be suffering, as well as delaying their evacuation.

(b) Question: One serious case with an abdominal wound and six slightly wounded cases.

Answer: Take the sitting cases out of the ambulance at once, and let them wait in Reception, later to be documented, treated if necessary, and sent to the evacuation section.

The ambulance will go at once to the resuscitation, or major treatment section with the serious case, accompanied by a clerk or orderly to ensure his immediate reception, and to do the documentation, and return to the reception section with his A.F. W3210 (original).

(c) Question: Two cases with gunshot wounds of the thigh, in Thomas splints applied at the R.A.P., and four sitting cases with minor wounds whose dressings have not been changed for several hours, and who complain of some pain or discomfort.

Answer: Document all cases in the ambulance, and send the ambulance first to the major treatment section with the two serious cases, and thence to the minor surgical section with the others.

(d) Question: Three cases of infective hepatitis, one case with suspected effects of a lung irritant gas, and one with a gunshot wound of the jaw.

Answer: All documented in the ambulance, which then takes them first to the minor surgical section for the medical cases, and thence to the dental section.

This answer conforms to our practice in the layout which we adopted in the desert, in which the same shelter was used for minor surgical and medical cases. The dental section was either with or close to the major surgical section. The titles given to the various sections of the A.D.S., and the nature of the work done in each will of course vary somewhat in different units. Whether cases such as those of infective hepatitis in the last example would be sent to the minor surgical and medical section would depend on the degree of congestion in the evacuation section, and also on how soon the next convoy was expected to leave for the C.C.S. Another lesson to be brought out is that if the A.D.S. has a special section for gas cases it is for the effects of vesicant gases only. Cases of exposure to lung irritant gases are urgent lying medical cases. The extent to which one removes cases from the ambulances at the reception section depends upon various factors such as the extent of country covered by the A.D.S., and the rate at which ambulances are arriving, since one cannot delay them too long at the main entrance if it means causing congestion there. In a desert A.D.S. it was common practice to examine cases in the ambulances and to send them to the various parts of the extensive camp in the ambulance which had brought them there. In a building in European
warfare it was more usual to unload the ambulances, and to make the first examination of the cases in the large room or hall set aside for the reception department.

**ASSAULT DRILL**

Under the title of "Assault Drill" I used a kind of exercise intended to teach men quickly to adapt themselves to tasks such as the crossing of small rivers, the passage of mountain barriers, or landings, etc., in which one might have to function on foot without the help of any transport, or might have to transfer equipment suddenly to a reduced scale of transport, using, for example, only jeeps or animal transport. Normally one would expect to have a period of planning and preparation before being called upon to take part in such operations, but it has happened that Field Ambulances have had to make such preparations at very short notice. It was in fact one such experience which impressed me with the value of such a drill, and I will describe it in illustration of this point.

I took a reinforced company of an Indian Field Ambulance to the assault of Mount Dologorodoc in the Battle of Keren, and when they were about to start the ascent of the steep and rocky hillside up which I had already accompanied the Brigadier on a reconnaissance, I rejoined them with the news that the mules, on which all our stuff was loaded, could not manage the climb until a track had been constructed. At the bottom of the hill in complete darkness and some confusion, and with great speed lest we should miss our place in the precisely calculated march table, we had to select essentials from our panniers and yakdans, make them up into suitable man-loads, and carry them ourselves over 1,000 feet up the hill, in more than one trip. It was this experience, incidentally, which caused me to realize the importance of and to initiate blindfold training.

It is in any case very good training and always useful to have a drill whereby the unit, or part of it, can speedily get ready to proceed on foot, or in modified or improvised transport, taking with it the essentials for its function. A high degree of elasticity, especially in the Company, is an essential characteristic of a good Field Ambulance, and is the quality above all others which makes these units so interesting to serve with.

In explaining to other ranks the value of this drill, which is always a sound thing to do, one can think of many occasions on which it would help—ranging from the problem of a section detailed to accompany part of a Brigade group crossing a river when some accident has made bridging impossible for several hours, to the ultimate disaster of the breakdown and abandonment of one's transport in a withdrawal—not of course a "retreat"—only the enemy retreats, our side withdraws. This kind of drill is best done by sections, not by training groups, and it is preferable to leave the sections to work out for themselves the essentials to be carried and the method of stowing them in packs, haversacks, basic pouches, and on such things as Everest Carriers if these are available. Section officers and N.C.O.s will be sure to discuss these points with one
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another, and later if it seems to be desirable the approved method for the unit can be laid down. A preliminary short talk on the objects of the drill should be given by the Section officer who should then read out or put on the blackboard a list of the things to be taken from the panniers and his ideas on how these should be carried. This can then be open to discussion, since the object is to find the best method, and those who will have to carry the loads can often help in this. All ranks must work out for themselves how they will pack their personal requirements, and it is a useful exercise to make men prepare a list of the things which they would take with them. The equipment is then quickly removed from the panniers, distributed in suitable man-loads, and its packing practised. The same should be done for various types of vehicles, and for mules or camels if the animals and the necessary gear such as universal carriers are available. When after repeated practice sections can, with great rapidity and in darkness or blindfolded, pass from a mechanized to a man-pack or animal transport basis, the drill is combined with simple exercises adapted to local circumstances. If you have cliffs or mountains near-by, a C.C.P. or modified A.D.S. will be manhandled up these, quickly laid out, and prepared for the reception of casualties, including the immediate brewing of tea, which, if the physical effort has been severe, is never wasted and provides an incentive to speed. Rivers and canals may be crossed in boats, barges, or improvised rafts, or men, equipment, and stretcher cases may be slung across narrow streams by rope and pulley, and a medical post set up on the far side. I will not describe the methods of making improvised rafts, rope bridges and so on, as these have been described in articles in this Journal. A surprisingly efficient temporary raft can be very quickly made with several armfuls of hay or straw packed in a tarpaulin, and this is often the best way to make the first crossing of a stream and to take a rope across it. If every man's work is to be economically directed during preparations for such crossings of small streams it is best, once the methods have been learned, to do them as a drill. If one has no boats, etc., to practise with one can dig in the ground a hole of the exact dimensions of an assault craft in which men, having packed their equipment into packs and haversacks, can quickly embark.

Miscellaneous Drills

Various other activities can be practised as drills, and units should work out their own methods for these. They include the adaptation for use as dressing stations of various kinds of building, and for use in casualty evacuation of any available local vehicles, rolling stock, barges, boats, etc.

During stretcher exercises men must practise lifting casualties on to stretchers in various ways, how various types of casualty should be placed and retained upon stretchers, the use of mountain stretchers, and methods of improvising stretchers. Stretchers must be carried over obstacles, up and down cliffs, across streams, and must be placed in ambulances and in all the kinds of vehicles in use, such as ordinary load carriers, jeeps, DUKWs, armoured
personnel carriers (Kangaroos), tracked landing vehicles (Buffaloes or Neptunes) storm boats and other assault craft, Weasels, and if possible in various types of aircraft. The drill for removing casualties from armoured fighting vehicles must primarily be worked out and practised by the combatants who use them, but members of medical units must also learn about this.

Drills for casualty sweeps have been published in this Journal, but although they look convincing in a Training Programme and are useful as a training exercise, I feel that they have little practical value, since it accords not merely with regulations but with common sense that searching the battlefield for casualties should be the responsibility of the combatant commander, since he alone can judge when it should be done, and that it should be done by combatant troops with medical assistance, since the men who have fought over the ground best know its topography and its pitfalls, and medical personnel are usually less familiar with the intricacies of minefields and booby traps.

In teaching convoy discipline there are many things which should be automatic, such as action at halts or when a vehicle breaks down in convoy, the positioning of air sentries, etc.; and these should be taught as a drill. It is imperative that all members of the unit should know all about convoy discipline, which should not be regarded as the concern only of the R.A.S.C. This training may well be organized by the M.T.O. whose advice will be useful in drafting the part of unit standing orders dealing with this subject. The convoy work of the R.A.S.C. is usually outstanding and often gains kudos for medical units in formations in which efficiency in this matter is encouraged by competitions. It helps to keep convoy discipline up to the mark if on long moves in convoy the C.O. and second in command conceal themselves at points on the route and allot marks to the various sections of the unit which are later published in orders.

During the last war we had to practise drills connected with chemical warfare, such as removing cases from contaminated ground, laying out first aid and decontamination centres and treating gassed cases, and ordinary unit decontamination. In such training I found that "little and often" gave better results than intensive courses, which tended to present the subject in imperfect perspective, for there were surely no more single-minded enthusiasts than the gas experts. Most of us had our periods of intense enthusiasm for this form of training, and as it is all described in the pamphlets it is unnecessary to say any more about it here.

Fortunately the need to apply our knowledge of chemical warfare never arose, but presumably in the immediate future we must continue our study of it, until it is replaced by something else.

I will leave it to someone capable of flights of imagination to suggest the lines on which drills might be evolved for medical personnel called upon to deal with an atomic bomb incident, or with as yet purely speculative forms of warfare.

(To be continued)