MEDICAL INTERCOMMUNICATION ON ACTIVE SERVICE.¹

By MAJOR R. E. BARNSLEY, M.C.,
Royal Army Medical Corps.

I feel that I should preface my lecture to-night with an apology and an explanation.

An apology is due on account of the very elementary nature of the material which I propose to put before you; a large amount, if not all of it, is already quite familiar to you.

I should like to add by way of explanation, however, that some of the practical and elementary lessons which we learned by dint of long and bitter experience during the Great War seem to be in danger of being forgotten in our present striving after specialization and technical efficiency.

Of these lessons none is of greater importance than the necessity of instructing medical officers, warrant officers and non-commissioned officers in the sending of messages in a short, simple, standardized and easily understood form.

These messages have always been, and must always be, an essential link in any system of evacuation of wounded; it matters not whether we are fighting on our feet or in motor cars, whether we are struggling on the sea or battling in the central blue. And yet, in official handbooks, you may search in vain to find the matter dealt with from the point of view of the junior medical officer or senior N.C.O.

At one end of the scale we find our rank and file admirably catered for. All, and possibly more than all, they may require is to be found between the covers of the Manual. In this all-embracing work the soldier can study the subtleties of the sympathetic nervous system or the methods of carrying wounded across the frozen wastes of Russia, he can master the intricacies of "raising the canvas and approximating poles" or enter into the mysteries which go to the concoction of a depressing beverage known as "Egg Nog."

At the other end of the scale we have, as officers, our staff rides and tactical exercises when for the time being (and probably for the only time in our lives) we become D.D.'sM.S. and A.D.'sM.S., and spend profitable afternoons in the country hurling casualty clearing stations and general hospitals with light-hearted nonchalance from one end of the country to the other.

Few of us can ever hope to reach these Olympian heights in real life, but between the two extremes there is an enormous field for peace-time training and discussion which may help to fit us to carry out the duties of

¹ A lecture for junior Officers and senior N.C.O.'s given at the Royal Army Medical College on November 6, 1930.
those who are the keystones of our war-time organization, the efficient Regimental and Field Ambulance medical officer.

It is, therefore, to the junior officer, the W.O. and senior N.C.O. that my remarks this evening will be mainly addressed.

Now before we embark upon our subject proper it is of the greatest importance that we should all get a clear idea as to the essential differences between operation orders and field messages, and you will perhaps forgive me if I try to emphasize the differences by a somewhat kindergarten method.

The apparatus you see before you (see fig.) (which, I must confess, looks as though I had had the benefit of the collaboration of Mr. Heath Robinson) is intended to illustrate a portion of a system of evacuation. Each of the small funnels represents an Aid Post, the larger ones Advanced Dressing Stations, the large one a Main Dressing Station, and so on.
The narrow tubing which empties the Aid Post represents the thin trickle of wounded which comes down by hand carriage, and it will be seen that two of these empty into the A.D.S. It follows therefore that, to prevent an overflow in the A.D.S., we shall require at least the same amount of narrow tubing (or an equal number of stretcher bearers) or, better still, one tube of wider lumen. This larger tube may be said to represent wheeled transport of any kind which can reach the A.D.S. at some time during the twenty-four hours.

In exactly the same way the M.D.S. must be kept clear by still wider tubing, indicating motor ambulance cars; tubes of increasing calibre, through C.C.S.'s to the General Hospital, would represent ambulance trains, ships, and so on.

A moment's thought, therefore, will show us the fundamental principles of evacuation in war.

(1) That the various forms of ambulance transport must increase in speed and efficiency as evacuation proceeds from front to base.

(2) As a corollary to this, that each form of ambulance transport must be exploited to its fullest extent and brought as near to the front line as the tactical situation allows.

(3) That all medical posts and units should, as far as possible, be situated at points where transition from one kind of transport to another takes place.

Applying these principles into actual practice we find that:

(a) Aid Posts should be at the nearest point to the front line where relative safety of the wounded can be secured and information regarding the situation in the sector can be obtained. This is, of course, generally in the neighbourhood of battalion headquarters.

(b) Advanced Dressing Stations should be at the nearest point to the Aid Posts which is accessible by wheeled transport at some period during the twenty-four hours.

(c) Main Dressing Stations should be at the nearest point to the A.D.S. which is accessible by motor transport during the whole twenty-four hours.

(d) Casualty Clearing Stations should be at the nearest point to M.D.S.'s accessible by ambulance train.

(e) General Hospitals have their situation regulated by general considerations, such as the proximity of Convalescent Depôts, Rest Camps, Quays, etc.

Now Operation Orders issued prior to an attack may be said to be the plan setting out in detail this apparatus, and I wish that I could convey to those of you who have not had war experience the painful and protracted labour which results in the birth of such an order. For days, and perhaps weeks, Field Ambulance Commanders have scoured the area until they are familiar with every track, nullah and covered way. An infinity of detail, such as water, rations, gas arrangements, equipment, accommodation, disposal of arms, disinfection, and a thousand other things have to be
arranged. Up at Divisional Headquarters the A.D.M.S. spends long hours with his D.D.M.S., the Field Ambulance Commanders, G., Q. and A. departments, while his luckless D.A.D.M.S. strives manfully to co-ordinate in the form of an intelligible order the flood of instructions that pour in upon him. At about 10 o’clock at night, when he hopes he has almost succeeded, his chief returns, tired and slightly irritable, alters all the dispositions, and the typewriters once again are set clattering away until the dawn. Finally, however, the apparatus is set, and all is prepared to the proverbial last button.

If all proceeded accorded to plan, the flow of wounded through the various posts would be the steady, orderly stream which you see passing through this apparatus, and no further adjustments would be necessary; in practice, however, this is seldom, if ever, the case.

If I wished to present to you the events which are likely to occur when the attack has been launched, I should fill up one funnel from a bucket, another possibly from a teaspoon, I should have to push one forward and draw another back, and, to complete the picture, I should arm the back row of my audience with a goodly supply of brickbats and urge them to subject the whole apparatus to a lively bombardment.

Under these conditions, if the flow is to be maintained, modifications are constantly needed which cannot possibly be carried out without a complete knowledge of the events occurring in each post and line of evacuation.

Imagine now that, in the midst of this pandemonium, some evil-minded person turned off the light, and you will get some idea of the plight in which an administrative officer finds himself if deprived of the light shed upon the situation by the field messages he should receive from forward areas.

We see, therefore, that the operation order sets up the apparatus, while the field messages passing backwards and forwards regulate the flow of wounded in conformity with the ever-changing situation.

Zero hour arrives, the barrage lifts, and the fog of war descends. From this moment the only rays which filter through the gloom to your Commander are the field messages which you are able to send back.

It is true that when things are going well, your Divisional and Brigade Staffs will be of the greatest help, but it is when things go awry that casualties occur. At such times all the energies of the staff are bent upon restoring the military situation, and we cannot expect that any large part of their time can be devoted to our medical problems. Do not think, too, that information of any value can be obtained from the wounded as they pass through. A private soldier sees only an infinitesimal part of the battle and the loss of a couple of his comrades is often enough to persuade him that the entire battalion has been wiped out.

When you are writing your operation order, you have many things in your favour. You have, at any rate, a table, a chair and a reasonable
amount of light. You can get food with some regularity; you can keep moderately warm. When, however, you are in an aid post or advanced dressing station, circumstances may be very different. Your light may be a candle which promptly goes out whenever a shell bursts outside, or, at best, may be a hurricane lamp or two. Perhaps you are soaked to the skin, dirty, unshaven, cold and hungry. You are surrounded by wounded men in pain; may be you are further handicapped by wearing a respirator; shell bursts and machine-gun bullets may be far too close to be pleasant; and, unless you happen to be one of Miss Dell’s steely-eyed, thin-lipped heroes, you are in a very considerable state of wholesome funk.

Under these conditions it is no easy matter to concoct a clear and dispassionate message for your C.O., and I maintain that it cannot be done unless we practise in peace time until it becomes almost a second nature. And yet, if it is not done, chaos and disaster will inevitably follow.

In order to illustrate the actual form of field messages, I think one cannot do better than take a hypothetical case; let us invent a situation and then examine various forms of message which might be sent. Such a situation I have put down in the papers before you:

**Situation.**

The time is 11.30 a.m., the attack began at daybreak this morning. Captain Green is in charge of an advanced dressing station in which are the following casualties: 2 G.S. wounds, abdomen; 1 fracture, both bones of leg; 5 superficial wounds, head chest and arms; 1 G.S. wound, chest; 2 cases of dysentery; 2 shell wounds of feet; 1 fractured skull; and 1 Pott’s fracture.

He is also in need of additional dressings, etc.

At the same time he hears that the M.O. attached to the 1st Blankshires has been killed, and decides to send one of his officers in relief.

Let us imagine that Captain Green is a temporary officer straight from hospital and hurled half-trained into the field. As likely as not he will send that most disastrous of all communications, the **verbal message**.

He has just finished putting up the Pott when he sees a Lance-Corporal leaving for the main dressing station with some walking wounded. He calls after him, “When you get back, Corporal, ask the Colonel to send along some transport and evacuate us as soon as possible.”

What is the result?

On the way down the Corporal is called to another case; he tells another bearer to give the message, which is duly delivered in the form, “**Transport is wanted at the A.D.S.**”

Some such conversation as this follows:—

“**Which A.D.S.?**”

“The one near the broken tree.”

“But there are broken trees near each of them!”
"The one I went to first thing this morning."
"How many were there to evacuate?"
"The Corporal didn't tell me."
"Who was the officer?"
"I don't know, I only arrived yesterday."

(I wonder if, like me, you are constantly struck by the amazing phenomenon that nine-tenths of the army "only came here yesterday"; whenever awkward information is required or unpleasant deficiencies of kit are to be explained, the same cry goes up. I often think the entire British Army must be in a constant state of "general post.")

To make a long story short, in all probability the wrong transport goes to the wrong place, and confusion results.

As a result of this contretemps, our gallant Captain decides that all messages must be in writing, and the next time he is similarly placed he hurriedly scribbles a "panic" message such as this:

To Col. Traverse.

ADS full up; send all transport as soon as possible, very urgent.

P. Green.

Or, worse still, a cheery, inconsequent note such as this:

To Col. Traverse.

Am having a pretty mouldy time, but all OK, what about sending up the old charabangs? and don't forget the rum. I hear poor old Slings has stopped one.

Yrs

P. Green.

Now such messages as these are almost as bad as the verbal variety, and I can assure you that they are no exaggeration. Let us consider a few of the more glaring faults and draw our conclusions from them.

(1) *Never address a message to an officer by name.*

Colonel Traverse may be dead or he may be six hours away up the line. You are addressing your unit, and whoever is acting as C.O. must deal with your difficulty. "22 Fd.Amb." is all that is required. A message such as the one we are considering is given to an orderly, who gets back to camp, reads the address and says to the first man he sees, "I have got a chit for the old man, have you seen him about?" "He was down in the transport when I last saw him." In the transport lines he is told that he has gone to brigade, thence the message may follow him to division, divisional train, and finally run him to earth some hours later in the operating theatre.

In the meantime, our Captain Green, who has lived with a battalion for so long, and has developed into such a tremendous soldier that he is never tired of inveighing against the branch of the Service to which he belongs, is probably pouring forth a tale of woe to a Brigadier or Battalion Commander, "Three hours ago I sent an urgent requisition for transport and nothing has happened! It is quite time they got rid of some of these old Regular Dug-outs and gave a chance to young men with fresh ideas."
Never omit to time your messages.

In the case we are considering, the Colonel, when he finally receives the message has no idea when it was sent. Perhaps some transport had been sent an hour before. Was the note sent before its arrival or are there men still to be brought away? Probably more men and animals are sent to risk their lives in going to an empty advanced dressing station, while at another one crowds of seriously wounded may be crying out for transport.

Never put in extraneous information without making clear what action has been, or is to be taken.

In this case we have certain information about "poor old Slings," and the following questions at once arise. Is he killed or wounded? Is a relief necessary? When did it happen? Does Brigade Headquarters know? What is the source of information?

Never ask for transport without giving definite information as to the numbers for evacuation.

As the weeks drag on our Captain really tries to profit by experience, and on the next occasion sends the following:

To M.D.S. 22 Fd. Amb.

11.30 a.m.

Please send up three field ambulances to evacuate my ADS as soon as possible. I am also getting rather short of dressings, especially wool and jaconet. I hear Slings has been killed and I propose sending 'Runners up to replace him.

G.

Even this is, however, a sorry effort. Let us consider some of its shortcomings.

Do not address Dressing Stations; "22 Fd. Amb." means the main dressing station, and "A or B Companies" the advanced dressing stations.

Always use the twenty-four hour clock.

Politeness costs nothing, but it is as well to get out of the habit of saying "please," or you will find yourself putting it into telegrams and will get into serious trouble with Signals.

Make sure that you get the correct nomenclature for vehicles, equipment, etc. To call an ambulance car a "field ambulance" is an error within my own experience. It seems unfortunate that in our official establishments there are things known as "motor ambulances." Logically, if a field ambulance is a medical unit in a field a motor ambulance should be a medical unit on motors. It must add to the confusion already existing in the mind of the layman if a vehicle and a unit are known by the same name, and some day (if it has not already happened) an ambulance will be ordered to a certain point and the sender of the order, expecting a motor vehicle, will be surprised to find a complete unit drawn up on parade. The use of the terms "motor ambulance cars" and "horsed ambulance wagons" would avoid such confusion.
(5) Do not order transport as though you were ringing for a taxi.
Your sole duty is to give your commanding officer information. It is for him to allot the transport. In this case, for instance, some of the wounded might utilize returning ration wagons and the cars thus saved might be sent elsewhere for badly-wounded men. Your O.C. must apportion the transport at his disposal, and to do this he wants not orders for cars but a clear idea of the situation in your dressing station.

(6) Do not send vague indents for dressings but state your requirements exactly.

(7) No mention is made as to whether Lt. Runners has left or whether a relief for him is required.

(8) Always refer to people by their appointments and not by their names. "Slings" may have been recently posted to the battalion and the fact may have been forgotten in the heat of the moment, or perhaps there may be a Sergeant of the same name in the ambulance.

(9) Give the source of information; it takes little longer to write "91 Inf Bde reports" than "I hear that."

(10) No mention is made of the abdominal cases; this information should be given as an indication of the urgency and is very much better than writing merely the word "urgent."

His next effort shows some signs of improvement and reads as follows:

22 Ed Amb
9876/5432
1130 Following require evacuation, lying 6, 6 sitting, abdominals 2, 1 extra Thomas splint required also 5 yds jaconet and 8 lbs wool.
91st Bde informs me that Lt Slings has been killed, have sent Runners in his place, Relief unnecessary.

P. Green
1234/5678

This message is open to the following criticisms:

(1) The hour is in the wrong place.

(2) Full stops should be avoided and AAA used instead, the importance of this is illustrated below.

(3) Figures should always follow words. A hurried reading of this message, especially if it has been written in copying pencil in the rain, might very easily lead one to interpret it as "lying 66" or "abdominals 21, extra Thomas splint required." Even if correctly read it is by no means clear whether "abdominals 2" have already been included in the "lying 6."

(4) Always use correct abbreviations. "91st Bde" should be "91 Inf Bde"; there may be an Artillery Brigade of the same number in the neighbourhood.

(5) No attention has been paid to the necessity of writing certain words in block capitals. These should be used for all proper names and for "key words." It is especially necessary in messages from medical officers because an All Wise Providence has, for some inscrutable reason, thought fit to
deprive ninety-nine per cent of medical men of the power of writing legibly. In this case, for example, "unnecessary" very easily becomes "necessary." No such misunderstanding could occur if "NOT necessary" had been written. Other examples of "key words" may be found in the use of the word "EACH" in such a message as "am sending 2 extra squads EACH to 2 Wilts and 1 Warwicks."

(6) You will notice that three subjects are dealt with in one message. Now the part about the evacuations will probably be needed by the transport officer, that about dressings and splints must go to medical store, the information regarding the relief will be filed in the office. How much better it would have been if three separate messages had been sent which could have been at once distributed to their appropriate departments.

(7) There is nothing to tell the Field Ambulance Commander whether Brigade Headquarters knows that a relief has been sent to the Battalion. For all he knows they may be screaming direct to the A.D.M.S. for a relief when Runners is already there. A copy of the message should be sent to these Headquarters for their information.

(8) There is no "sender’s number." Always give a serial number to every message. If this is not done your C.O., in replying, must begin "with reference to your message regarding, etc., etc." Had it been given a number he would merely have quoted this in the space "in reply to" on the message form.

The war slowly drags to its end and, a week before hostilities cease, Green is for the last time confronted with the same situation.

At the cost of much confusion and unnecessary suffering on the part of the wounded he has at last learned the lesson he might easily have learned in peace, and he sits down and writes the following:—

**MESSAGE 1.**

To 22 Fd Amb  
9876/5432  
From A Coy  
PG 21  
5 Nov  
Following for evacuation AAA lying 6 includes abdominals 2 AAA sitting 9  
*Time of origin 1130*

P. Green

**MESSAGE 2.**

To 22 Fd Amb  
From A Coy  
PG 22  
5 Nov  
Send following by next convoy AAA Thomas splint complete 1 AAA jacocet yds 5 AAA wool lbs 8  
*Time of origin 1135*

P. Green
R. E. Barnsley

MESSAGE 3.

To 22 Fd Amb—91 Inf Bde
PG 23
5 Nov
91 Inf Bde BM 234 begins AAA MO Blanks killed 1000 AAA relief required at once AAA ends AAA Lt RUNNERS left at 1030 to report to 1 Blanks AAA relief NOT necessary AAA added 22 Fd Amb rptd 91 Inf Bde
Time of origin 1140

P. Green

In conclusion perhaps I may just call your attention to a few practical points which have not so far arisen.

(1) Invariably keep a carbon copy of every message sent in your message pad, no matter how unimportant and trivial it may seem.

(2) Having written an order or message read it over to someone else and ask him to give you the meaning in his own words. It is incredibly easy to write something which is quite clear to yourself on which the recipient may put an entirely different interpretation.

(3) If, as in Message 3, you are sending out to more than one recipient, extra carbon copies must be made for each. At the end of the message write “addsd” before those whom it primarily concerns and “rptd” before those to whom it is sent merely for information. For example, if you are withdrawing your A.D.S.’s and want the A.D.M.S. to know, at the foot of your message you would write “Addsd A and B Coy rptd ADMS.”

(4) Whenever you receive a message initial it at once and scribble the time of receipt upon it.

You will notice that in the suggested solutions the messages are written in telegraphic rather than narrative form. For routine medical messages this presents many advantages.

(1) The message form was used in at least 70 per cent of cases during war.

(2) It encourages brevity.

(3) Confusion and omissions are avoided as spaces are reserved for times, dates, etc.

(4) One copy may be sent by hand and another through Signals, if the message form is used universally the making of an additional draft is avoided.

(5) One message pad only is required for all purposes.

Now I am quite certain that many of you must be thinking all this a cumbersome and perhaps unnecessary procedure. I can imagine you thinking to yourselves, “How can I, as a qualified medical man, be expected to sit down, with perhaps wounded unattended to, and wrestle with a sort of bastard crossword puzzle such as you describe?”

I hope, however, that what I have said may do something to dispel this state of mind and to convince you that unless these things receive consideration unnecessary suffering may result. It cannot be a pleasant feeling...
to stand surrounded by desperately wounded men and watch their chances of survival gradually diminishing owing to your own carelessness or ignorance.

We rightly pay very great attention to the training of our specialists, but it is well to remember sometimes that the responsibility for enabling our men to benefit from their services in good numbers, in good time, and in good condition rests largely with junior officers and with the N.C.O.'s and men of the Corps. In civil life it is little use having a magnificently equipped hospital with a brilliant staff if those responsible for sending in patients treat ruptured ectopics and perforated gastrics at home with castor oil and peppermint water. Similarly in war, the most brilliant operation performed at the base can never compensate for unnecessary suffering and loss of life owing to confusion and muddle in the forward areas.

It is inevitable and probably desirable that, in time of peace, we should tend to become a heterogeneous collection of workers taking as our standard those who occupy similar positions or appointments in civil life.

War will, however, bring about a complete reversal of all this and our civilian colleagues, perplexed and bewildered in the novel surroundings in which they find themselves, will look to us for guidance in such military questions as we have been considering this evening.

When that time comes we must be in a position to take the field as a team, every member of which is prepared to take such place as is allotted to him, realizing that our own personal ambitions and desires count as nought when compared with the efficiency of the Service to which we belong.