MEDICINE IN FAR EASTERN THEATRES OF WAR

BY

Brigadier H. L. MARRIOTT, C.B.E., M.D., F.R.C.P., A.M.S.
Honorary Consulting Physician to The Army;
Consulting Physician, India and S.E.A.C. Commands, 1942–45

I wish to express my appreciation of the honour of being asked, as a civilian, to talk to such a distinguished Army audience. The presence of such men as Macalvay, Meneces, Officer, O'Dwyer and Sayers makes me wonder what I, who learned from them, can profitably say in their hearing. My remarks are submitted with humility and in the trust that any apparent dogmatism will be ascribed to the effort to attain clarity and not to presumption.

I shall speak chiefly of what seem to have been the main medical lessons of the Burma campaign. Before doing so, I wish to introduce certain considerations of a corrective nature.

It is our duty to learn thoroughly, and to profit from, the lessons of the last war. However, it is even more important not to learn those lessons so well that they restrict our mental outlook and prevent us from being ready to adapt ourselves to the probable realities of the next war which will almost certainly be utterly unlike the one just over.

What are the likely realities of the next war? We must make the imaginative effort to foresee them if we are to avoid the pitfall of 'last-war-mindedness.'

Where will such a war be fought? In attempting the answer to this question one needs a globe and a tape measure. It then becomes apparent that the most probable zones of conflict may be in, through, or over very cold regions. It may be a very 'cold' war indeed and our tropical experience may not stand us in much stead. Perhaps we ought to be considering the problems of polar warfare.

What will be the character of the next war? No one really knows but we must attempt an intelligent guess if policy is to be based on what will be and not on what was. Two major characteristics seem certain: (a) Dominance by air forces, (b) Dominance of atomic weapons. Development of the potentialities of aircraft make it certain that air power will be of paramount importance. Certain consequences become inevitable: First, speed of outbreak of war. Within a matter of hours we may attack, or be attacked from, areas thousands of miles away. Armies will be airborne and may, within a single day, leave the homeland and be engaged on frozen Arctic wastes or in tropical jungles. The lesson is ready adaptability of mind and preparedness for immediate war anywhere. Land or sea lines of communication may have entirely to be re-
placed by air supply and air evacuation. How adapted are the existing establishments and equipment of medical units for such an eventuality?

The atom bomb is and atomic weapons seem likely to render all our familiar apparatus of war obsolete. Ought we not to be making our main preoccupation study of the prevention and cure of the effects of these weapons?

I trust that the mention of these corrective considerations—"glimpses of the obvious," perhaps they are—may be forgiven. I propose now to deal with my subject proper.

What are the main and stable realities of "Medicine in Eastern Theatres of War?" I submit that they are:

(1) *The potential prevalence of disease.*

None of us with Burma experience needs the labouring of this point. We remember the colossal sick rates of 1942 and 1943 and the consequent paralysis of combat power. Without effective medical services major war is almost impossible in humid tropical regions.

(2) *The corollary is that in tropical warfare the medical service is the most important of all the branches of the armed forces.*

This truth was realized in Burma by General Slim and the other generals but soon new senior officers will arise and it may become forgotten. It is, I suggest, our duty in peacetime to keep aflame in the minds of combatant officers realization of the practical importance of the medical branch—not for its own aggrandisement but as a matter of simple duty to the men who may have to die if it fails.

(3) *The main disease hazards are few and now well understood.*

They are: Malaria; bowel diseases; skin diseases; scrub typhus; venereal diseases; infective hepatitis; malnutrition.

(4) *All these diseases are preventable. Their occurrence on any scale should be indefensible.*

Malaria can be stamped out by a combination of the older methods of personal protection (long sleeves, long trousers, nets) and mosquito destruction (draining, oiling, etc.) together with the new methods of paludrine-prophylaxis and DDT spraying.

Bowel diseases can be eradicated if field hygiene is good enough. I shall be interested to hear in the discussion if any better method of water purification than chlorination has been evolved. It was not safe against amoebic cysts or virus infections. Boiling seemed the only real protection. The Dutch Army's practice, suggested by the German Schuffner, of compelling men to drink only tea was a good practical way of ensuring boiling of water. If a man's water-bottle is inspected he can easily lie and say the water was boiled but tea can be detected at a glance and can hardly be prepared without boiling the water; also it is preferred by the men.

Skin diseases can cause terrific man-power wastage in hot and humid climates.
The chief of them are intertrigo, fungus infections, prickly heat, scabies and impetigo. The main preventive measures are the discarding of clothing (stripped to the waist) in daylight hours, ample facilities for the washing of clothing and bodies, and the *instant* treatment of any lesions at their earliest beginnings.

Scrub typhus is partly preventable by thorough application of the lessons learned in the Burma and Pacific campaigns. It seems likely that the newly discovered antibiotic chloromycetin may give a method of suppression comparable with mepacrine or paludrine suppression of malaria.

Venereal diseases can be prevented by propaganda and prophylactic measures which are well known.

Infective hepatitis caused much sickness in the last war. Probably the virus was in many cases swallowed and prevention of this method of infection entails application of the same hygienic measures as are needed to eradicate bowel diseases. Towards the end of the war came the discovery that the virus is frequently transmitted by infected syringes or needles used for subcutaneous intramuscular or intravenous injections. We now know what a tremendous amount of jaundice has thus been innocently caused by doctors, nurses and orderlies. I am sure that tens of thousands of cases of infective hepatitis in the Services have been due to syringe transmissions during the various prescribed inoculations. The inoculations were necessary but one wonders if, in fact, they caused more wastage than they prevented. The virus is very persistent in needles and syringes and infinitesimal amounts suffice to infect. Chemical disinfection is unsatisfactory. Possibly speakers in the discussion will state what regulations are now in force to prevent syringe jaundice. I am still seeing men as civilian patients who have recently been demobilized and who have developed infective hepatitis about two to three months (the incubation period) after a Service inoculation.

(5) *Hundred per cent prevention of these diseases needs very efficient Army hygiene.*

I am conscious that I am speaking here in the Army School of Hygiene and I hope it may be understood that any opinions I express are not uttered in any spirit of hostile criticism but with the constructive aim of more and better hygiene.

In the Burma campaign our preventive measures were for a long time pitifully inadequate. The chief reason seemed then, and in retrospect still seems, that the R.A.M.C. was too orientated towards the treatment of disease and too little towards its prevention. It is literally true that always less than one per cent of our personnel was devoted to hygiene while 99 per cent were engaged in treating diseases which need not have occurred. Mr. Churchill's great words, in another context, could most fitly be applied: "Never did so many owe so much to so few."

May one plead for consideration of permanent deviation to prevention of at least 25 per cent of R.A.M.C. personnel. The trap is that the allocation of personnel tends to be worked out in peacetime to fulfill the clamorous needs, pressing on an undermanned service, for the treatment of sick. In peace...
stations here and abroad the problems of field hygiene do not irresistibly compel attention and tend to sink into the background.

The carrying out of preventive measures by combatant troops will be proportional to the conviction of their importance obtaining in the minds of combatant officers and other ranks. Conviction and full co-operation are not secured by simple orders. Intensive education and training are required. I shall be interested if we may hear what place hygiene training takes in the training of non-medical troops.

In tropical warfare continuous hygiene propaganda is needed and I have before suggested "that a medical directorate in the tropics should have as one of its sections, perhaps the most important branch, a section of propaganda staffed by experts in all forms of publicity including film and radio."

(6) Most of the main diseases are very rapidly curable if treated early.

It is true to say that most of the main diseases, if treated early and efficiently, can be:

- **CONTROLLED** in one day.
- **CURED** in four days.
- **CONVALESCENT** in ten days.

Malaria can be quickly "cured" by mepacrine, paludrine or quinine though relapses of B.T. malaria may subsequently occur. The bacillary bowel diseases respond very rapidly to the sulphonamides. All the common skin diseases clear up very rapidly if treated before extensive. Scrub typhus, which was such a menace in Burma, now yields in one or two days to chloromycetin. There is evidence to suggest that chloromycetin may also cure typhoid. The venereal diseases can be brought under rapid control by penicillin. Only amoebiasis, infective hepatitis and malnutrition require treatment for more than a few days.

(7) Therefore, most of the diseases do not require evacuation to the base. Forward treatment is what is needed.

I wish most strongly to submit a plea for a radical change in outlook in regard to the disposal of medical (not surgical) sick in the field. Can we not scrap for ever the policy of evacuation as the main principle of disposal? Can we not instead plan to treat at least 80 per cent of medical casualties forward and only provide for evacuation of 20 per cent?

The principle of evacuation to base was a colossal handicap in the Burma campaign. Not only was it dead against the medical realities of the diseases concerned but it resulted in fearful disorganization of the fighting troops. Once a man got into the evacuation machine it was literally many months before he got back into the fighting area and then often not into his old unit. The effect on troops' morale was very bad. Such disorganization and demoralization is needless but it will occur again unless there is a change of mental attitude now.

Forward treatment can in many cases be carried out in the man's own unit.
if the regimental officer is quick enough off the mark and starts treatment within a few hours of the man beginning to be ill. If movement out of the unit is needed then it should be to light mobile medical units at brigade or divisional levels of organization and geographical distribution.

(8) The principles of: (a) Possible almost complete prevention of disease, and (b) Early forward treatment, demand revision of establishments.

If these principles are true then they should mean drastic revision of distribution of personnel:

(i) Quantitative: There need to be far more officers and men engaged in hygiene duties. Do not let us again fall into the trap of working out the allocation of hygiene officers in the light of peacetime requirements or in the light of experience gained in such health resorts as the Middle East. Let us remember the lesson of tens of thousands of sick of the Burma campaign—men sick of preventable diseases. It may be that in peace so many men cannot be diverted to hygiene but let the establishments at least exist for the mobilization of field units. So far as curative units are concerned, I suggest that in future the allocation of personnel should be the lion’s share to forward units and a relatively small proportion to base hospitals.

(ii) Qualitative: The qualitative distribution of personnel is even more important than the quantitative. In the Burma campaign far too many of our best men were located (to their own disgust) in base hospitals literally more than a thousand miles from the operational area.

The first pick of men as regards quality should go to hygiene duties. Above all medical men in the field, the hygiene officer needs to be a man of ability, drive and personality. He has to influence the combatants by persuasion and, if needs be, forthright speech. This cannot be done by men who, as men, do not command respect.

The second pick of men should be the regimental medical officers. A good R.M.O. can have tremendous effect on the positive health and fitness of his regiment and can by his own exertions, regarding hygiene and early treatment, reduce sick rates. We need a tradition that the R.M.O.s are the medical corps d’élite of the younger men. They should be majors. In a regiment a medical officer is on his own for better or worse. If he is good he will tackle his duties with vision and energy, if he is bad he will let things slide and his first idea will be to push off his sick to rear areas. Let the duds be in base hospitals where there are many seniors to control and coerce them.

In this matter may I utter a word of warning in regard to the danger of civilian “hospital-mindedness” and the creation of too many “specialists”—operating in base hospitals. The civilian consultant, with his high standard of technical knowledge, can be of great value in war but not if he is obsessed with hospitals and acts by diverting too much talent into them. He must see the picture, and his part in it, whole. “An Army exists to fight not to go to hospital.”
DISCUSSION

In the discussion which followed, the Director of Hygiene said that water purification arrangements were adequate and pointed out that there was now an official general issue of the individual water purification outfit. Developments had been going on at the College in connexion with the production of a new type of sterilizing tablets (Chloramine B). This was proving very satisfactory and there was every hope of its replacing the existing halazone tablets with their detasting counterpart.

Millbank filter bags were a standard individual issue. For small parties of men there was the midget filter, which produced 10-15 gallons of filtered water an hour. For larger parties there was the larger size of portable filter. Apart from this there was the well-known larger scale mobile purification apparatus of various kinds.

The Director of Hygiene also stated that the question of ration scales was constantly under review and that the field service ration now authorized for the Far East was fully adequate.

With regard to the special point of dried milk raised by Brigadier Marriott he thought that this was included in the present field service scale (Note: It was confirmed later that it was included as a part of the milk ration but limited availability did not allow of the full amount of milk authorized being issued in this form). As regards ration packs, dried milk was used. It was mentioned that a special committee was sitting at the present time with a view to considering ration packs and any improvements required to them. The policy was likely to be one of concentrating on the twenty-four-hour and the ten-man packs.

As regards increasing the establishment of hygiene personnel, as suggested by Brigadier Marriott, the Director of Hygiene said that apart from other circumstances, the medical man-power question involved would be a difficult one. He did not, however, think that the necessity arose for more hygiene units provided that units made themselves responsible for their own hygiene arrangements with technical assistance and advice from the hygiene organization. He felt that the existing hygiene arrangements with their malaria control companies, apart from the field hygiene companies and field sanitary sections, were adequate but that improvements were wanted in intra-unit hygiene organization. This matter was under consideration.

Col. Officer referred to the question of evacuating the sick. He thought there was no need for sick to be evacuated and that the majority of them could be dealt with on the post, thus avoiding the loss of manpower and the probable posting of the soldier to another unit.

General Dowse said that he had found that it was possible to evacuate sick and return them, eventually to their own unit. He agreed with Brigadier Marriott's suggestion that R.M.O.s should have higher rank.

Colonel MacAlevey thought that a light Hospital, something on the lines of a MFTU, was needed at Corps level.

Brigadier Bennett thought that sick, apart from battle casualties, should
be treated in the forward area and said that a lot of sickness could be avoided by treatment in a field hospital.

General Tyndall said that the Field Ambulance today, is, in essentials, the same as the old Field Ambulance and that surgical cases must be evacuated.

Brigadier Cameron said that in Normandy no one had time to go sick for the first few days. He added that the first sick cases were exhaustions, which threatened to become a problem. He further added that all battle exhaustions were treated on the spot as they were advancing. Forty-six per cent, he said, of those given medical attention were battle casualties; the remainder were sick. He was of the opinion that we should treat as many cases as possible in the forward area.

General Magner said that in his experience the potential of holding sick was not as great in the reorganized field ambulance as in the old. He thought that in a war of this nature (i.e. in the Far East) because of the high proportion of sick to wounded, we ought to have a higher potential for holding sick.

The Director-General summing up said that he agreed that where possible we should treat as many casualties as possible in the forward area. The problem was the transportation of the necessary equipment.

He agreed with Brigadier Marriott in saying that we must not learn our lessons too well, i.e. base our policy for a future war on the previous one.