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THE WORK OF A REGIMENTAL MEDICAL OFFICER.¹

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It is no doubt attributable to the unprecedented conditions under which we now find ourselves at war that the organizers of the Honyman Gillespie Lectures have chosen this subject.

"The Work of the Regimental Medical Officer" is not by any means an easy subject and strikes a very different note from the matters of scientific interest which have preceded it in this year's lectures. It may, however, prove to be informative to the senior student or junior graduate to whom it is addressed and who is likely in the course of time to be invested with His Majesty's Commission in the Royal Army Medical Corps.

INTRODUCTION.

It is well that the recipient of an Emergency Commission should realize the importance of the duties which he undertakes when posted to a unit as a Regimental Medical Officer. A very senior officer has stated indeed "that the members of the medical services are the most powerful people in the British Army when they use their knowledge properly." The medical officer is faced with a task which will not only form a test of the instruction which he has received while an undergraduate in the wide range of preventive medicine but will also emphasize the presence or absence of those powers

¹ Honyman Gillespie Lecture, delivered September 12, 1940. Reprinted by permission from the Edinburgh Medical Journal, N.S. (IVth), Vol. LXVII, and through the courtesy of the Honyman Gillespie Trustees.
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of adaptability and initiative which are of as much importance as his technical knowledge as a student.

The duties of the medical officer bring him into contact with the fundamentals of the preventive and corrective aspects of disease in an intimate fashion which is never possible in civil work and he thereby gains an insight into medicine which forms an admirable foundation for practice later on. He must also, however, if he is to be effective, develop into the soldier as well as the doctor. Medical officers have confessed to me that they have found difficulty in knowing when to act the doctor and when the soldier. The general rule is that one should always behave as a doctor when dealing with the sick and at all other times assume the "smart and soldierly bearing" of the regimental officer except in one's own Mess, when it is unnecessary to pose as anything but a gentleman.

One of the most important attributes of the soldier is a sense of discipline. Any medical officer to whom the genuine joys to be obtained therefrom are not already familiar should remember that it entails not only insistence on discipline in others but the preservation of an even higher level of discipline in himself. A medical officer's influence for good will wane rapidly if he is slovenly in dress or unpunctual on parades. As a soldier, also, the medical officer must develop a general knowledge of the tactical use of the unit to which he is attached as well as of the medical tactical aspect of collection and evacuation of casualties.

Further, it is essential in these days of mechanization that he shall be complete master of the art of map-reading and be capable of teaching the art not only of reading but of memorizing a map to bearers and ambulance drivers.

Hygiene and Sanitation.

The military surgeon no longer occupies the position of pre-eminence in the medical service of an army to which he was raised by the achievements of men like Ambroise Paré and Larrey. During the past century he has yielded pride of place to the hygienist working through the medium of the regimental medical officer.

One result of this has been that while, during the South African War, fifteen men became casualties from disease for every one actual battle casualty, in the Great War this ratio fell to two to one.

The history of all campaigns from biblical to modern times has shown that where weapons have killed their thousands, tens of thousands have perished from epidemic or preventable disease, and the professional soldier is well aware that the success or failure of any operation may be decided by the standard of health of the troops at his disposal. He rightly esteems the advice of his medical officer highly and is only too anxious to co-operate with him in all that he may suggest with a view to preventing disease and bettering the health, both physical and mental, of officers and men.

To this end it is the important duty of the medical officer to obtain the most intimate knowledge of all details of the life of the men under his
medical charge while on or off duty and during day and night. The word "hygiene" covers not only the unsavoury latrine and drain but ventilation, the supervision of water supplies, dietetics and cookery, general and personal cleanliness, hours of duty, clothing and protection from the elements, morale, and a host of other details too numerous to mention. Not only will the student be faced with the relatively unfamiliar preventive aspects of the ordinary diseases at home but he may at any time be sent abroad where certain types of tropical diseases will loom large on his horizon. It is not enough for him to have a superficial acquaintance with the diagnosis and treatment of malaria, for instance, but he must also know how the disease is spread, the life history and habits of the anopheles, the methods of extermination of mosquitoes and the measures of personal protection available for the men under his charge, such as nets, sprays, anti-mosquito cream, etc.

Further, the louse does not greatly interest the student in civil practice while in the Army the creature assumes great importance. It is apt to be almost universal and is the carrier of many diseases such as typhus, trench fever and relapsing fever. The medical officer must know about the prevention of infestation and when and through what channels clean clothes, baths and facilities for disinfection of clothing may be obtained.

He must indeed become master of many subjects not on the surface related to medicine but nevertheless of prime importance in the prevention of disease.

It will easily be realized that within his unit a medical officer occupies a position of power and responsibility often greatly in excess of his comparatively junior rank. Slackness will not only affect adversely the health of his own men but may form the starting point of infectious disease which, by spreading through other units, will diminish the striking power of the Army to a serious extent. There are no short-cuts to hygiene and one may quote the words of Sir Stanley Maude relative to the scourge of dysentery in Gallipoli: "It is not development in preventive medical work but rather greater efficiency in the manner in which the existing system is carried out that is required."

It would take long to cover these matters in detail but two problems of special importance at the moment should receive mention. I refer to ventilation and water supplies.

**Ventilation.**

With the return of large numbers of troops to this country as a garrison and the difficulty of ensuring adequate ventilation at night owing to the necessity for black-out regulations the droplet-spread group of diseases is assuming a position of outstanding importance, especially, of course, during the winter months.

Attention to spacing of beds in huts and billets so as to remove "heads" as far as possible from each other is important.

Under war conditions no soldier's head should be less than 5 feet from
that of the next and each man should be allowed a minimum of 45 square feet of floor space.

The method of "double bunking," by which bunks are built in pairs or in fours, may be used in rooms where there is sufficient ceiling height, and this will economize accommodation without reducing the distance between heads.

This entails, however, especial care over ventilation and is certainly not to be used light-heartedly as a means of cramming more men into billets when accommodation is hard to come by.

There has been a considerable outbreak of cerebrospinal fever in this country during the winter, no doubt partly attributable to under-ventilation and overcrowding in some areas owing to shift of population and to a rising carrier rate in the country, and it is of some interest to note that the Army at home was not more seriously involved than the civil populace. This is the reverse of previous experiences where this disease occurred especially as epidemics in barracks or hutted camps. The comparatively light incidence in troops must be attributed to the careful enforcement by medical officers of regulations drawn up by the Directorate of Hygiene with a view to preventing overcrowding and to ensuring night-time ventilation of huts so far as is humanly possible. In a Division of some 17,000 men, for instance, only three cases occurred, all of whom were infected while on leave in their own homes.

There is, however, every reason to expect that the problem will be even more acute in the future owing to the increased number of troops now at home and the very greatest vigilance will be necessary on the part of all medical officers not only from the preventive aspect but to ensure the early diagnosis which is of such supreme importance if the excellent therapeutic results of the sulphonamide group of drugs in this disease are to be fully exploited.

The incidence of the common cold, influenza, tonsillitis and infantile paralysis, spreading by the same means, will respond similarly to these precautions.

Water Supplies.

With the occurrence of several outbreaks of the enteric diseases in this country shortly before the war, it has come to be realized that our water supplies cannot all be trusted to the extent we were accustomed to believe, and this is of course true especially of country supplies and wells. Many municipalities now undertake routine chlorination of their supplies. Because a farming community has used a well supply for a long time without trouble does not mean that urban dwellers now in the Army can drink the same water with impunity. Measures are now being taken for all non-municipal sources of supply to the Army to be chlorinated and this will entail a detailed knowledge of water duties by all medical officers, including familiarity with the various forms of apparatus they may be called on to use, such as
water-tank trucks, trailers and portable filters, as well as with the methods of water purification applied to various forms of containers from large tanks to the individual soldier’s water bottle.

**Casualties.**

The normal organization for the collection and evacuation of casualties *via* the regimental stretcher-bearers, field ambulance and motor ambulance convoy is fully described in the manuals and it will function in case of hostile landing in this country. It will be found, however, unsuitable for casualties due to hostile air action and a few words on this subject are necessary.

It has been laid down that in case of air attack resulting in numbers of casualties, Army and civil medical services will be pooled. This means that the medical officer will have to deal with civil casualties as well as military if they occur in his immediate neighbourhood but it also entails the use of the civil services for military casualties. Casualties will in all probability be admitted to the most convenient civil hospital under the Emergency Medical Services Scheme.

The main problem is likely to be one of transport. It may be that an Army ambulance car will be readily available but possibly there will not be one and evacuation will then depend on the civil ambulance services. The number of these and their availability will naturally vary in different areas and improvised transport may have to be used instead.

It is necessary, however, to emphasize and re-emphasize that the one thing which really matters to a wounded man is the rapidity with which he can be admitted to a surgically-equipped hospital. This is the most important thing a medical officer must think of in relation to his casualties. For this reason he should arrange, where possible, to have his casualties taken direct to hospital without stopping at any civilian first-aid post. The best method of transport is that most rapidly available, provided of course it is suitable to the casualty involved.

While no medical man can underestimate the value and importance of skilled first-aid work, it is quite possible under home-service conditions for undue insistence on first-aid to interfere with and delay the primary and essential consideration of rapidity in evacuation. Almost the only things which should be allowed to delay an ambulance are the necessity for stopping urgent haemorrhage and the need for splinting fractures.

It is one of the important functions of the medical officer to teach every man in the unit the use of the first field-dressing and to train a proportion, which should be as large as possible, as regimental stretcher-bearers for the collection of wounded and first-aid work. He should not allow the weeds and the defectives to be allotted to him for this purpose. It takes a strong man to carry a heavily loaded stretcher any distance and a very intelligent one to render useful first aid.
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In teaching first aid certain important points should be remembered. The tourniquet is a dangerous weapon and predisposes greatly to the fatal wound infections. It should, if possible, be used only by the medical officer. If, as may happen, it is necessary for the bearer to apply it, he should understand that the case must be seen by a medical officer at the earliest possible moment. The tourniquet has lost more limbs and lives than it has saved.

During an enforced wait for an ambulance car, cover from the elements and, where possible, from further attack, and rest for the injured man will naturally be provided and the treatment of shock by warmth, hot sweet drinks, and morphine where indicated commenced. In this connexion a word of warning should be given in relation to warming-up shocked patients. Overheating is as harmful as underheating, and one of the most certain methods of jeopardizing a shocked patient is to cause further loss of fluid by sweating. The method of applying warmth by supporting the stretcher on trestles and placing a Primus stove beneath may quite easily be overdone, just as may be the case with the electric shock-cage in hospital. The correct temperature to aim at around the skin surface is one slightly below blood heat.

The splinting of fractures is the third important part of first aid. We are all familiar with the striking diminution of mortality from shock in compound fractures of the femur which resulted from the introduction of the Thomas splint during the last war. It is really important that bearers should be able to apply this splint effectively and also that they should be capable of improvising splintage for a fractured limb when the Thomas splint is not available.

Finally the medical officer has an extremely important function to fulfil in classifying the wounded in order of priority for evacuation. It is useless to occupy transport by the dead and the mortally wounded and it is bad organization to send slight injuries to hospital before severe ones. It is the medical officer's bounden duty to see that cases of urgent haemorrhage, open thoracic wounds, abdominal wounds and compound fractures arrive at hospital first. Whenever possible, also, the hospital concerned should be warned of the arrival of any cases which may need immediate operative treatment.

A field medical card must be attached to each casualty with a description of his injuries and what treatment has been applied and even in the hurry of the moment a record of casualties must be kept in the admission and discharge book.

The whole problem of evacuation at the moment is one of close cooperation with the civil services in the area. The medical officer should get to know the responsible A.R.P. control officers and draw up a detailed scheme for his unit, so that every officer and man knows what to do and where to apply in the case of casualties. Unless he does his thinking beforehand there is no chance of evacuation passing off smoothly.
REHABILITATION OF RECRUITS.

Under present conditions recruits may be taken directly into some units without preliminary training. They may arrive in mufti and it is the function of the medical officer to conduct an immediate inspection of these men and to segregate any cases of transmissible disease. Thereafter, it is necessary for him to watch the physical progress of any men who are below standard or undernourished and who require a period of good food and graduated exercise before they can be thrown straight into full work. Attention to these men will fully repay the time and trouble taken and it is astonishing to watch weedy men who would otherwise break down fill out and turn into strapping soldiers in a few weeks.

While on the subject of physical fitness it should be mentioned that the fitness of the medical officer himself should not be neglected. He must be able to undertake the thirty-mile route march that is expected of the men even in these days of mechanization and be able at the end of the day to assist in laying out a camp, arranging for water supplies and so forth.

To this end the medical officer should take pains to enter into physical training and organized games along with other members of the unit.

RECORDS AND RETURNS.

I do not propose to inflict upon you details of the many returns which are required. As a profession we do not take kindly to paperwork but it should be remembered that Army Returns are really necessary for the information of Divisional and Corps Staffs and for the War Office. All statistics and estimates of the prevalence of disease are based on those returns and if they are inaccurate a false impression will be gained by the responsible authorities.

Especially mention is necessary of the use of the admission and discharge book as this may form the sole evidence at a later date in respect of a soldier's claim for a pension.

The sanitary diary is a day-to-day record of observations by the medical officer on matters affecting the health of the troops and should be regularly used and as regularly presented to the officer commanding for perusal and signature. It serves a valuable purpose in throwing the responsibility for action on medical advice on to the combatant branch to whom it properly belongs.

Furthermore, such records of the soldier as the medical history sheet must be kept up. To take an example, it benefits no one for a medical officer to inoculate a man against typhoid and paratyphoid and yet fail to enter the fact on medical history sheet and paybook. The next medical officer under whom the soldier comes has no idea whether the inoculation has been carried out and is forced to be on the safe side and re-inoculate. Even the soldier concerned is unlikely to forgive the omission.

Quite apart from statistics required for the conduct of operations the
returns obtained from the medical services will form the basis for the statistical section of the history of the war.

If anyone has the slightest doubt of the value of these statistics as a piece of mass research work, I recommend perusal of the final volume of the "History of the Great War." Not only can the reader find therein information of the greatest professional interest but this volume furnishes for the first time in the history of the British Army standards upon which estimates for the medical conduct of this and future wars can be based by the staff officers concerned.

Any medical officer who is so devoid of conscience as to prejudice the accuracy of this fine piece of research fully deserves the retribution which will assuredly overtake him.

ECONOMY.

One might imagine that talks on Economy come more within the province of the Treasury than of the Army but, in practice, it will be found that the economy and salvage drive is a very real thing in the Services and the medical officer is not only expected to assist in checking waste in cook-houses but also to ensure economy of medical stores.

The medical officer is issued with a set of equipment which is quite sufficient for this purpose. It is, however, generally expected that he will report for duty with the essential personal equipment which every doctor is expected to possess, no matter where he is; for instance, a stethoscope, sphygmomanometer, clinical thermometer and hypodermic syringe.

The first measure of economy is to avoid indenting for fancy drugs. Anything can be supplied within reason, but fancy prescribing, seldom therapeutic in civil practice, is totally wasteful when applied to the soldier. One or two simple mixtures, a series of essential drugs in tablet form, a hypodermic and some morphine, atropine and adrenalin will go a very long way.

Please remember that the medical officer is personally responsible for all medical equipment and if anything is lost he will pay for it. For this reason he should never take anything on charge without checking it carefully and giving a signed receipt for it, obtaining a similar receipt from his successor when he hands it over again. By this means he will avoid paying for equipment that someone else has "scrounged."

A careful eye must be kept on what happens to drugs and dressings. It goes without saying that dangerous drugs and brandy will be kept under lock and key and accounted for as they are expended; but triangular bandages are apt to find their way into the ambulance drivers’ hands as grease-rags while the strange places in which one meets elastoplast adhesive must be seen to be believed. Elastoplast is expensive and is issued almost solely for the treatment of blistered feet and not for repairing the wireless of the sergeants’ mess. Ordinary adhesive strapping will do for other purposes. As a taxpayer the medical officer is paying for material used and it is well that he should be extremely careful of it.
If a medical officer ever feels inclined to complain about his lot, he should remember that the majority of his colleagues in the combatant branches are totally divorced from their civil profession for the duration of the war, while the military doctor not only serves his country in the practice of his own profession but actually has a unique opportunity of adding thereby to his professional value in after-life.

I am indebted to The Director-General, Army Medical Services, for permission to deliver and publish this address.