THE PRACTICE OF MILITARY MEDICINE

Colonel DEREK LEVIS, O.B.E., M.B., D.P.H.

*Army School of Health, Ash Vale, Hants.**

THE medical care of the soldier must go beyond his treatment when sick, injured or wounded. A medical service which regards this as its sole task is not only guilty of a dangerous over-simplification, but will fail in its proper mission.

Similarly, the individual medical officer who restricts his activities within such narrow confines, and such are not unknown, clearly has no idea of the true medical needs of the Army. The military need is for the maximum number of healthy trained men. The need of such a medical officer, naturally enough, is for the maximum opportunity for the practice of his professional skill—as he sees this skill. At first sight these two needs would appear to be utterly incompatible. It is my intention to try and show how this apparent difficulty might be resolved so that not only will the Army get what it requires but that we, as a Corps whose duty it is to help see that it does, will retain our professional satisfaction in doing so.

It is not really surprising that the two skills, that of keeping fit men fit and that of making unfit men better, although both are products of medical disciplines, have drifted apart. The public image of the doctor has not changed since the bearded and frock coated physician was portrayed by the Victorian artist in the act of auscultating the chest of a doll while its small owner stood by in admiration. "What's the matter with dolly" ran the caption. It was this image of the all wise one doing something to someone which was the public image of the doctor. It has not changed with the years. Today our friend in the frock coat has been replaced by the "Dr. Kildare" working in a perpetual "Emergency Ward 10". Unless one is "fighting for a patient's life" or taking part in "mercy dashes" to treat the victims of disaster or actually doing something physically to a sufferer, one is simply not regarded as being a doctor and that is that. It is an attitude which is regrettable but it is one that can be expected of a society which is apt to regard Harley Street as a higher qualification and not as the postal address it really is. It is small wonder then that as a profession we have tended to become pre-occupied with *what* has happened to the individual soldier rather than *why* it happened to him.

Military medical practice demands that we should not be content merely with finding the cause of morbidity in the soldier and treating it, but that we must also attempt to find the reason which led up to it. Let me give you an example of what I mean. A soldier is admitted to hospital with multiple injuries following an accident with a truck. The cause of his injuries is undoubtedly the truck which landed on top of him or the rocks against which he was thrown. The reason for his injuries lies in the combination of circumstances which contrived to produce the accident. There are the physical facts of weather, terrain, light and darkness. There are the human facts of visual integrity, selection as a driver, standard of training, fatigue, intoxication and possibly the effects of former illness or injury. There are the mechanical facts of the vehicle; its particular type, its design, its standard of maintenance. It may well be that the injuries of the man are directly related to the design of the vehicle. It may well be that a particular type of

*Now U.K. Army Health Liaison Officer, Australia, Army Headquarters, Melbourne.

vehicle is repeatedly connected with a certain type of accident. Over and above all these factors are the facts of the military situation prevailing at the time. Somewhere in this complex lies the reason for what has happened and it is important that we should appreciate this. Now let us take a medical example: A soldier is admitted to a medical unit with a Fever. You discover the cause to be one of the various forms of Malaria Parasite. The reason could be simply dismissed as the bite of an infected mosquito. But it goes deeper than this. Where was the patient when he was bitten? Is this the first case from that particular area? If not, is the particular form of parasite infecting him the one normally to be expected from that particular place? Is the season of the year the usual one for malaria to occur? Does his urine show the presence of paludrine? If not, was he on prophylactic paludrine and missed taking it or had its use in that particular part of the world not been recommended? Does he know what precautions he should take against malaria? Is he the first of many similar cases? Along with the treatment of both these cases such questions must be asked and the answer sought. The reason for the injury or sickness that brings the soldier to us for treatment of the cause must always be the primary concern of the Army Medical Service, because within this reason lie the seeds of prevention and the means of avoiding or preventing a recurrence, if—and it is a big ‘if’—we can only train ourselves to look for them.

It must also be appreciated that the answers to many of these questions cannot be provided by the sick or injured soldier because he is not the best of observers. Nevertheless a careful history can expose much. But the over-riding requirement for all of us who are concerned with his case is a very full knowledge of what the soldier does, where he does it, how he does it and what he does it with. In fact the whole of the facts of the military world which he faces outside. This world is not something remote and apart from the military hospital or medical centre. Its pattern and the way its inhabitants react to it are very much our concern because whatever it is that brings the soldier to the hospital bed or the consulting room in the medical centre may, directly or indirectly, have its origins in this pattern.

Whatever the pattern of this military world may be it is also to this particular world that he must return should our treatment make this apparently possible. It is of little military value for him to return to circumstances in which a recurrence may be inevitable. Should any degree of disability remain, will this be compatible with a return to his original military circumstances and the duties demanded of him? Unless, therefore, we know this pattern we shall fail as practitioners of military medicine. We cannot therefore afford to adopt a passive attitude towards the soldiers under medical supervision. In whatever field our particular medical expertise may lie, for it to have its full value to the Army it must be related constantly to the whole military scene. Treatment and Prevention cannot be divorced. In treating a cause we must never lose sight of the reason for it.

The practice of military medicine is dynamic and it falls broadly into three parts with no one part completely independent of the other two. The first part is the task of anticipating possible morbidity or injury from the evidence immediately available to us. The soldier in the hospital bed, while representing perhaps a failure of this anticipation, may still present sufficient evidence to enable us to throw our thinking forward and outwards and so anticipate a repetition of his condition in others. Apart, therefore, from his clinical examination he must be examined militarily. What is his unit? In relation to his condition this may mean nothing or a lot. What is his exact employment throughout

the military working day? Let us imagine that he is in hospital with a yellowish staining of his face, neck and hands with an incipient eczema. He is a Corporal in the Royal Army Ordnance Corps. His trade is that of an Ammunition Technician. His actual work is the modification of gun cartridges and involves the removal of the explosive element. To do this he must extract the container with special tongs and place it in a bin along with others previously removed. The explosive containers are friable with age. The actual explosive compound is a yellow powder. A study of the actual technique reveals that a lot of the yellowish powder escapes in the surrounding atmosphere. His protective clothing is inefficient, ventilation is poor and the prescribed workshop practice is receiving lip service only.

The admission of this man to hospital removes him from all this. The staining fades and the dermatitis clears up. The medical officer says he is fit for discharge to his unit. Unless that medical officer has been thorough in the military, as opposed to the clinical, examination of this patient a recurrence is inevitable and a repetition of his trouble in his fellow technicians is also inevitable. The evidence is all there for the medical officer to anticipate morbidity.

This is evidence from a patient. What about evidence from such matters as geography and climate, training programmes, weapon systems, the habits and customs of the indigenous population and the like? What can be or might be expected to arise from these? So unless medical officers get out and around and see the soldier against this pattern, illness and injury are simply regarded as something to be treated; they are not anticipated and they will remain unchallenged. The approach must be, is this case the first case? Can we expect others? This discipline is not merely to be confined to infectious disease but to every soldier who may present himself to us with any condition.

From anticipation the move into the second part of military medical practice is logical and easy. It is the employment of a variety of techniques that will minimise or prevent such anticipated troubles. This may mean the use of practice of established techniques. For example, specific vaccination.

It may mean the evaluation of new techniques in a military context. For example, would the use of oral prophylactics for the control of smallpox be practical in an Army? Have the repository anti-malarial drugs a place in military malaria control?

It may mean that we must evolve new techniques from the evidence available to us to meet a new problem. Such evidence may be available to us in the actual case or from the particular military circumstances from whence he came. It is generally a combination of both. Symptoms and signs may suggest an arthropod borne infection; the geography, climate and season of the military scene suggest a mite borne transfer; zoological circumstance suggests a rodent reservoir. Is it possible to evolve an empirical line of attack until more elegant scientific procedures confirm its value, disprove it or replace it?

Many years ago the evening miasma from the tropical swamps was regarded as the cause of fever. An observation which led to the purely empirical technique of avoiding swampy areas as camping places for troops. An anticipated morbidity was reduced. Scientific advance revealed the fever to be malaria which reached men via the mosquitoes which bred in the swamp. An empirical technique based upon observation can start a chain reaction which can lead to a new preventive technique with a scientific basis and which is militarily practicable.

It will have occurred to you that for some of these techniques the medical officer is the actual executive—for example, the physical act of vaccinating a soldier. In others we propose techniques which require the active co-operation of the individual soldier or of the whole military group—paludrine prophylaxis, foot hygiene, water purification and the like. In others we must oversee the specialised training which may be necessary to offset an anticipated hazard. But in all of them the original impetus was derived from observation—not only of the sick or injured soldier but its application to the military circumstances whence he came and the duties he was performing against their background. With anticipation and observation and their synthesis into practical preventive techniques, it is easy to relate the third component of military medical practice which is to treat the illness or injury of the soldier clinically and to think about it environmentally. Speculation as to reasons for its origin must not wait until the second, third or fourth example has reached the ward or medical centre. Medical officers employed caring for the soldier outside the military hospital and medical officers caring for the soldier who may be in hospital, are not working in two separate worlds. Neither do they finish their task by the one sending the soldier into hospital or by the other treating him and discharging him to duty. It is easy for this to happen unless there is a true appreciation of what military medicine should mean.

The medical officer caring for troops on the ground must prevent a recurrence in the soldier concerned or its occurrence in others: the medical officer in the hospital can assist him in this by bringing to his notice any information or finding which may have value in formulating local preventive techniques, doing this early and also ensuring that when the soldier is discharged to duty he is fit in all respects to resume his original place in the military world from whence he came or, if he is not, to state clearly and unequivocally what his military limitations are. Both medical officers must therefore know what the soldier of every arm and service is expected to do; what special military skills may be required of him and what hazards are peculiar to a military scene or what may arise from the pattern of military events. This cannot be achieved by waiting for patients to come and be treated.

The medical officer working in the field—as opposed to a military hospital—must walk physically through some part of his military world every day. It must be done at different times of the day and throughout the different seasons of the year. He must learn the significance of the sounds and sights and even smells of that world. The roar of the warming up tanks from the hangars should make him think of the risk of carbon monoxide poisoning and the industrial hazards of mechanical transport; the noises of the square should turn his mind to problems he may encounter with new recruits; the smell of sweat in the gymnasium should remind him to have a word with the physical training staff about the frequency of a particular type of injury. If this kind of thing is done regularly not only will it provide him with healthy physical exercise but also provide him with the mental exercise of observation and deduction. It will on occasions give a forecast of what might be waiting in his consulting room or provide the reason for what he might have seen there on previous occasions. Walking through a military community is not just the dull chore to detect the lidless dustbin or the dubious sanitary practice. These are important but coincidental. It is the actual practice of the three-point approach to military medicine. For those medical officers who work in military hospitals, this walk through the daily life of their military patients may not be physically possible but it is mentally practicable and medically essential. It may be hard at first sight to apply this

ranging and anticipatory doctrine to a case of ingrowing toenail. But, after all, an infantry man must use his feet; his feet are encased in boots and his foot hygiene is important. All of these may have contributed to his disability. But does he march or is he the perpetual storeman? If he does march, what sort of boots does he wear on duty and what shoes does he wear off duty? A mental "go walk about" of this kind takes less time than its physical counterpart but it is just as important. As I have just said, hospital practice and medical centre practice in the Army Medical Services are not entirely separate entities. Yet the danger of them becoming so exists. Modern medicine is becoming increasingly specialised and, as a speciality grows, so does the difficulty of communication within the overall philosophy. This common meeting ground—the talking point—in medicine is the patient. In civilian practice the organisation of our Health Services and the way of life of our patients operates against us in communicating with each other in common terms. Age structure, social background and class structure complicate the issues. In the Army such factors cannot apply to the same extent. We are all in the same community; our organisation is made for easy communication; the age structure is constant and degenerative processes are less significant. We know, or should know, the exact part that each element of the military community must play in the total effort. But we have the variants of climate, geography, the deprivation of long accepted modifications of the environment and at times acute and real physical danger. These are what we must recognise and then communication about our patients becomes simple.

The total care of the soldier demands of us a total knowledge of what he does. It demands the three-point approach. In this three-point approach, whatever our particular branch of medical skill may be and wherever we practice it, lies a discipline that should give professional satisfaction to us all.

ACADEMIC ACHIEVEMENTS

F.R.C.S.(Eng.)
F.R.C.S.(Edin.)
F.F.A.R.C.S.
D.Obst.R.C.O.G.

D.P.H.
D.O.(Eng.)

MAJOR J. H. TAYLOR, M.B., B.S., M.R.C.S., L.R.C.P., D.T.M.&H., R.A.M.C.
MAJOR W. S. P. MCGREGOR, M.B., Ch.B., R.A.M.C.
MAJOR M. D. FARRAR, M.B., B.S., M.R.C.S., L.R.C.P., D.T.M.&H., D.A., R.A.M.C.
CAPTAIN J. D. MAYBERRY, M.B., B.S., M.R.C.S., L.R.C.P., R.A.M.C.
CAPTAIN R. J. STEWART, M.B., Ch.B., R.A.M.C.
CAPTAIN P. E. COPUS, M.A., M.B., B.Chir., M.R.C.S., L.R.C.P., R.A.M.C.
CAPTAIN W. J. HEFFERNAN, M.B., B.Ch., B.A.O., R.A.M.C.