SOME REFLECTIONS ON THE ORGANIZATION OF GENERAL HOSPITALS

BY

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The War Establishment of every general hospital shows the bed strength in brackets after the designation. This is an unfortunate practice as it leads people to think of general hospitals in terms of beds rather than patients. It is doubtless a relic of the pre-scientific era of Medicine, when patients spent much longer periods in bed, and when the dressing of the beds was more important than the dressing of the patients. As a method of measuring the requirements of a hospital it is undesirable for the following reasons:

1. The hospital establishment is the same whether the beds are occupied or not.
2. It takes no account of the fact that a hospital is full when 90 per cent of the beds are occupied, since certain diseases cannot be warded together, nor can sexes be mixed.
3. It makes no allowance for the degree of illness of patients treated in hospital, nor for the varying conditions under which different diseases require treatment. On the average, in a military general hospital, 60 per cent of patients are ambulant and 40 per cent are confined to bed.
4. On the administrative side, it makes no provision for additional cooks, where special diets may be a major factor in the treatment, or for extra clerks, where clerical work is excessive on account of medical boards or of complicated note typing as in neurological work.
5. It does not discriminate between patients’ ranks, nor allow extra nursing and catering staff for officers.
6. Beds require neither posts, pay, nor discipline; a contributory factor to the omission of postal staff, pay serjeants, and hospital police in former war establishments. In a large general hospital, the latter are required on security grounds alone.

A general hospital may be likened to a vertebrate animal where the administrative staff corresponds to the skeleton or supporting framework; the brain which directs and co-ordinates; and the digestive organs which supply the nourishment. The professional side is represented by the muscles and joints which produce the function. The accommodation is equivalent to the integument which houses the whole and hospital supplies are analogous with the animal’s food.
Now the role of a general hospital is liable to change with the strategical situation, at one time mainly medical, at another mainly surgical. At yet other times, the use of a general hospital may require to be diverted to T.B., skins, V.D., infectious diseases or mental disease.

In the animal, unused muscle groups can be maintained at rest. In the general hospital it is neither economical nor desirable to allow clinical groups to ruminate. Therefore when not required in one hospital, it is better to remove a clinical group to some other hospital where it can justify its existence or alternatively disband it temporarily for extraneous employment.

When an animal uses a muscle group extensively and to the exclusion of other groups, the skeleton will change in conformity. The hospital skeleton likewise should be adaptable to the needs of the clinical group.

Internal anatomical changes produce alteration in the shape and extent of the covering integument; similarly, changes in clinical groups are likely to require extension and alterations in the accommodation provided for the hospital.

The object of the above analogies is to stress that a general hospital must be flexible and vital rather than inert and dead, as it is apt to appear when described in terms of beds.

Whether due to the march of the welfare state or to the abolition of suffering from improved medical techniques, patients in advertisements for medical practices are now frequently referred to as units. Using unit in the same sense, the size of general hospitals might well be expressed in multiples of one hundred units instead of beds, e.g. “War Establishment of a General Hospital (600 units),” bearing in mind that one unit is equivalent to one patient.

The constitution of general hospitals in the 1939-45 War was found to be too rigid was shown by the formation of numerous specialist teams, which could be switched about and attached as and when required. That idea might well be expanded to embrace every kind of specialism including general medicine, dermatology, mental and V.D. Specialist teams may be compared to small highly specialized groups of muscles such as the oculomotors or the lumbricals. The former serve no useful purpose without vision nor the latter with stiff joints.

If specialism is made universal, as it should be in a general hospital, the term “general duty,” an alias for blissful ignorance, can be allowed to fall out. No young assistants, be they medical or nursing, help anything or anybody unless they have special interest, training and experience in the special subject in which they are called upon to assist.

Memories of “general duty” orderly medical officers leaving the surgical cases to the care of Providence and of medical sisters supervising surgical cases for the “day off” are better left as memories.

Having converted all specialists into teams, it seems logical to suggest that all supporting ward staff should be capable of mobility too. This could be done by creating clinical groups or sections composed of clinical officers and nursing staff adequate to treat and care for a given number of patients.
Some Reflections on the Organization of General Hospitals

The establishment of a clinical group could be based on the staff required for the treatment of 25, 50, 75 or 100 patients. The size of the group would be fixed and predetermined for each separate branch of Medicine and Surgery. Whereas a 25 unit or patient group might be suitable for E.N.T., a 100 group might be more convenient for general medicine.

Each specialist team would then be responsible for working so many clinical groups in its own particular speciality. The number would obviously depend on the size and composition of each specialist team and all need not necessarily be housed under the roof of one hospital.

In the same way that each specialist team would have its own establishment and scale of specialist equipment, each clinical group would have its fixed establishment and scale of special ward equipment.

In the past, the establishment and stores of a general hospital have been laid down in toto, based on the number of beds. It was then left to the Commanding Officer to make the best of his resources for satisfying professional requirements. These were often inadequate and sometimes the administrative side was exalted at the expense of the professional in matters of man power.

The exact composition of specialist teams and clinical groups would require to be determined by a select committee or working-party and any special factors necessitating changes in administrative staff would need to be considered in relation to each.

The idea is gradually emerging that the professional component of a general hospital should be grouped, mobile and attached, whilst the administrative side should be mainly permanent and fixed. The word "permanent" is qualified because it has already been mentioned that certain specialized professional groups working in a general hospital require additional dietetic staff and/or clerks. Large officer sections need separate cooks, waiters, pack-storemen, as well as additional nursing staff. Nevertheless the administrative staff require a comparatively small adjustment when a general hospital changes its role.

With all its stores, offices, special departments, special construction and engineering problems, a general hospital is a clumsy and complicated formation from the Army point of view and movement is expensive from the Treasury angle. When buildings in a theatre of war have been requisitioned and transformed into a general hospital, the longer they can be retained as a hospital, the greater will be the all-round saving. It is submitted that this will be most easily achieved by keeping the administration static and moving the professional teams and groups as circumstances may require. For example, as general medical and surgical groups move forward they can be replaced by T.B., skin, V.D. or mental groups in the rear.

It may be argued that with greatly increased air ambulance transport in the future, movement of general hospitals, once established, will be rendered unnecessary. Unfortunately air ambulance transport in any quantity presupposes air superiority, which may be far from obtainable in the early stages of a campaign.
The creation of general hospitals in a theatre of war overseas should be accomplished in phases.

I. Initial planning of total units, i.e. patient cover for all purposes by D.M.S. Force.

II. Reconnaissance for hospital sites and suitable accommodation by senior administrative medical officers with specialist advisers.

III. Joining of administrative staff, coincident with receipt of stores and equipment.

IV. Joining of professional staff, i.e. specialist teams and clinical groups, when Phase III is completed.

Planned in that order, no one is kept hanging about unnecessarily.

Whilst Phase II is in progress, stores and equipment are despatched to the theatre of war in bulk and distributed to hospitals, as and when required, to coincide with the Phase III of each hospital.

The first three phases may well be accomplished before the initial enemy attack.

On completion of Phases I and II the following information is known.

(a) Total patient cover for Force.

(b) Proportion of patients peculiar to each speciality is estimated from (a).

(c) Site, unit (i.e. patient), strength, and exact function of each hospital has been determined.

(d) Number of specialist teams and clinical groups required to implement (c) can be calculated.

(e) Total stores are calculated from information available under (a) and (b).

(f) Distribution of stores to each hospital is based on information available under (c) and (d).

Let us assume that clinical groups have been fixed as 100 patients or units for general medical, 100 for general surgical, 50 for skins, 25 for E.N.T. and 25 for eyes. A general hospital of 500 units is required at site X. Proportion of general medical to general surgical units is to be equal.

The number of clinical groups required to staff the hospital would be Medical 2, Surgical 2, Dermatological 1, Otological 1, and Ophthalmic 1. Specialist teams would be proportionately distributed. Administrative staff would be on the scale of a 500 unit hospital. For total staff, specialist teams and clinical groups staff are added. Stores and equipment would be basic stores for a 500 unit hospital plus special equipment for specialist teams and clinical groups.

As regards the allotment of ancillary departments of Pathology, Radiology, Blood Transfusion and Physiotherapy, it is considered that two or three grades of each type could be given a fixed establishment and equipment scale. The particular grade of any type selected for any given general hospital would depend upon the number and nature of the clinical groups of which it was composed.

The loose attachment of the technical personnel proposed in this article
is likely to meet with criticism. It was, however, proved in the 1939–45 War on more than one occasion, that the technical staff of a general hospital awaiting a definite role, could be successfully grafted on to an existing general hospital and removed again without causing a tremor in the parent hospital. In one large hospital, this process was repeated twice.

There are advantages also in the constitution of a general hospital being adaptable to the accommodation available, rather than vice versa.

It will be conceded that in the case of an invasion force, general hospitals complete in all particulars, must be formed prior to embarkation. That is considered to be the only exception.

In the 1939–45 War, so many attempts in respect of general hospitals were made to build the body before the skeleton was in situ and before the food was available to nourish the body. The resultant waste of time in professional man and woman hours was appalling.

Whilst the present planning of an International Army for the defence of Europe is in progress, it is not known what steps, if any, are being taken to produce an international military medical force. It is quite certain, however, that whatever solution is arrived at, the general hospital patient population will become vastly more international than it did in the late war. The language difficulty is bound to arise and owing to differing traditions and techniques, an international general hospital composed of national clinical groups and specialist teams is likely to work better than a general mix up of individual staff of all nationalities or alternatively than separate national hospitals, which are unlikely to be available exclusively for their own nationals.

**SUMMARY**

1. Except in Invasion Forces, the formation of general hospitals should be phased.
2. Each general hospital should consist of a fixed administrative cadre to which varying numbers and types of specialist teams and clinical ward groups can be attached or detached at will.
3. All general hospital stores should be issued initially from bulk in the proposed theatre of war and on a group basis to individual hospitals.
4. Professional personnel should not join a general hospital until it is ready to receive them.
5. The unit (i.e. patient) in multiples of 25, 50, 75 or 100 becomes the yardstick for measuring the size and composition of general hospitals in lieu of beds as heretofore.
6. A list enumerating administrative sections, clinical groups, specialist teams and ancillary departments is attached.

Contentious criticism of any article is almost unknown in the form of letters addressed to the Editor of the *Journal of the Royal Army Medical Corps.*

1Any criticism, especially constructive criticism of existing methods or establishments or of the proposals given in this article will be extremely welcome and will receive appropriate publicity (Ed.).
May such be anticipated by the submission that this article was written as a provocation to stimulate thought on, and a solution of, a problem which is likely to become increasingly important in the future.

**Composition of a General Hospital**

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<th>Administrative sections</th>
<th>Clinical groups</th>
<th>Ancillary departments</th>
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<td>Clerical</td>
<td><em>Medical</em> General</td>
<td>Pathological</td>
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<td>Stores</td>
<td>Neurological</td>
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<td>*Transport</td>
<td>Tuberculosis</td>
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<td>*Catering</td>
<td>Infectious</td>
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<td>*Welfare</td>
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<td>*Postal and telephones</td>
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<td>*Maintenance†</td>
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<td>*General duties‡</td>
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**Various** Officers
- Mental
- Venereal

*Non-medical personnel*
†Carpenters, electricians and boilermen
‡Messengers, ambulance orderlies, general fatigues, etc.

**Notes.**—(1) With the exception of the officers' group which is necessarily assorted, specialist teams would be allotted to every one or more clinical groups and ancillary departments according to the size determined upon.

(2) Officers' groups would necessarily be installed where major specialists were available.

(3) Anaesthetists are included in the various types of surgical teams.