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THE TUBERCULOSIS SERVICE IN THE NATIONAL HEALTH SERVICE*

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Introduction

The Government White Paper on the National Health Service¹ has reviewed past achievements and the present situation of the medical services available to the community, and has put forward ideas for improved amenities which should be established. As far as the tuberculosis services are concerned, it has crystallised some ideas that many of us have held and, in some cases, endeavoured to put into practice. Some twenty years' experience of the tuberculosis service has brought home forcibly to me the need for its co-ordination and integration with other medical services, both preventive and therapeutic, and the necessity for a much wider conception in the interests of the patient, the national economy, and medical education. The views expressed in this paper are personal ones and not necessarily those of any authority with which I am associated. This paper, therefore, will be somewhat provocative in that it will propose a re-orientation on a very much wider basis of the whole of the service.

History

The tuberculosis service as we know it to-day has developed from the Edinburgh dispensary² established by Sir Robert Philip in 1887 (prior to which nineteenth-century medicine, including tuberculosis, had been concerned with diagnosis rather than treatment).

The first dispensary to be opened in England was in Paddington in 1909, since when some 400 or 500 similar dispensaries, or clinics, have been set up in every part of Great Britain, in some respects ahead of other medical services, but largely unrelated to them, and accordingly restricted in the sphere of their activity. As far as student education, both medical and nursing, is concerned, this isolation of the whole problem of tuberculosis has resulted in a serious lack of familiarity with this widespread disease. Speaking generally, neither the medical nor the nursing student has

any real practical experience of lung tuberculosis cases during training for, with a few notable exceptions, the tuberculosis services are entirely separate from teaching hospitals and under the exclusive aegis of the local authorities. Hence the young practitioner is virtually ignorant of the management of the disease and the public is thereby deprived of the front-line defence which he could otherwise provide.

The Chest Clinic

The tuberculosis dispensary or, as I have since 1929, when I introduced the designation to my own clinic, preferred to call it, the Chest Clinic, is a centre essentially for consultation:³ dispensing in the ordinary sense of the word forms a very small part of its present-day activities, this being in the hands of the general practitioner, apart from specialised forms of treatment such as collapse therapy and the like. Furthermore, the term tuberculosis dispensary is associated with great opprobrium in the mind of the ordinary patient, who so dreads "consumption" that it frequently requires much tactful explanation on the part of the practitioner to persuade his patient to avail himself of the facilities provided by the dispensary. In any case, from the point of view of exactitude, some 75 per cent of cases referred by reason of such symptoms as haemoptysis, loss of weight and appetite, indigestion, lassitude, etc., are shown to be due to other pulmonary or cardiac conditions, and in the past year at my Chest Clinic only 18 per cent of the new cases referred have been pulmonary tuberculosis proper. Among the other cases were lesions of the upper respiratory tract with secondary changes in the lungs, apical catarrh, bronchitis, bronchiectasis, non-tuberculosis pulmonary fibrosis, cancer of the lung, the pneumokonioses and mycoses, heart disease, etc. Again, the title tuberculosis officer is misleading, the doctor in charge being primarily a clinician rather than an administrator. By and large, administrative work is the direct concern of the Medical Officer of Health, while clinical work comes within the province of the tuberculosis physician. He is, therefore, more accurately designated physician in charge of the department. In order to achieve the maximum from the tuberculosis service he should be fundamentally a general physician, but he should have, in addition, specialised knowledge of diseases of the chest in general and of pulmonary tuberculosis in particular. It is to-day generally accepted that he should have more specialised training than the minimum at present prescribed

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* Based on an opening address at a Conference on Tuberculosis organised by the Royal College of Nursing in March, 1945, and presided over by Dr. Harley Williams, Secretary of the National Society for the Prevention of Tuberculosis.

by the Ministry of Health and he should be of consultant rank with, incidentally, a salary commensurate with his status as a consultant. His interest, moreover, should extend to social and preventive medicine no less than to its therapeutic aspects. He cannot be expected to do this adequately, however, if his service is divorced from general medicine.

Medical and Nursing Education

A scheme has been put forward by various war-time committees^{4,5} and planners whereby the Chest Clinic would be situated in or closely associated with a general teaching hospital. The advantages of such a scheme are obvious. To take first the educational aspect: it is only by teaching the doctors and nurses of the future about pulmonary tuberculosis that an improved service can develop. There is to-day a regrettable loss of clinical material unused in the Chest Clinics up and down the county—a loss criticised by Sir George Newman in 1927. The Goodenough Report⁶ proposes that students should have practical experience of tuberculosis as part of their curriculum in the same way that they already do part of their training in medical wards, in the theatre, etc. The Joint Tuberculosis Council⁷ is also strongly of the opinion that the main Chest Clinics should be linked to a general hospital, from the point of view of teaching as well as for prevention, diagnosis, and treatment. Moreover, the students would reap the additional advantage of having their interest stimulated in tuberculosis as a subject possibly worth specialisation at the post-graduate stage. In particular with regard to the training and recruitment of nurses it is permissible to hope that, with tuberculosis initially a subject in the general curriculum, in which greater numbers of nurses would inevitably become interested, their numbers might be increased, and the standard of nursing for tuberculosis raised. Moreover, with an "up-grading" of all hospitals such as I shall presently discuss, there is no reason why the present waiting-list of recruits for the large teaching hospitals should not be more evenly spread through the whole field of nursing.

Non-Pulmonary Tuberculosis

The vast amount of detailed knowledge required of the medical student to-day presupposes, in each and every branch of medicine, a certain degree of specialisation, but as Walshe⁸ has recently contended in his "Integration of Medicine" the "specialist must cling fast to the foundations of medicine for only thus can he integrate his contributions to medicine and orient them." To pass

again from generalisation to the particular branch of medicine which is the subject of this article, the tuberculosis services must be co-ordinated with other branches of medicine, both preventive and therapeutic, and it is this object which would appear most readily attainable by the conception of the Chest Clinic as a department of the general hospital. Under such an arrangement the non-pulmonary forms of tuberculosis such as bone and joint tuberculosis or tuberculosis of the skin, eye, ear, nose, or throat, etc., would automatically be catered for in the appropriate department of the same hospital which would also be linked up with a sanatorium for surgical tuberculosis. Although according to nomenclature they should come within the province of the tuberculosis officer, they are in practice, outside his sphere, and are ordinarily referred to general hospitals or to the appropriate specialised hospital. The existing scheme, with patients dispersed to many hospitals, renders more difficult the necessary compilation of accurate statistics of tuberculosis in all its forms. With facilities for the care of all such diseases grouped together the work would be correspondingly eased, while the counterpart of the existing clerk of the tuberculosis service would do his work within the main hospital in the statistical department.

Regionalisation

A hospital that can economically provide, among yet other facilities, those already outlined must be part of a chain of large hospitals throughout the country, distributed according to the needs of the population. The small local or specialised hospital should, I feel, be in the main superseded, and the large general teaching hospitals placed as the requirements of each particular region demand. It is felt by many experts that such hospitals should maintain some 800 beds per 100,000 population⁹ and sanatoria in such a service should have some 300 beds, although it is not suggested that every hospital should have an affiliated sanatorium or Chest Unit since such a specialised unit would alternate with rheumatic, urological, neuro-surgical units, etc. The general hospitals should be of a standard equal to that of the best teaching hospitals of to-day and those falling below this standard should be up-graded. The stimulus of teaching is universally recognised, and there is ample reason for a tremendous extension of the facilities for medical education throughout the country, so that every one of these large regional hospitals might well be a centre for teaching, either under- or post-graduate. Municipal hospitals of to-day and municipal services generally suffer, by and large, from the lack of incentive due to the absence of any educational programme.

A Chest Service

The Chest Clinic, situated within the parent hospital should, in point of fact, be itself but one department of a whole Chest Service, and pulmonary tuberculosis will constitute but one of the problems, although a major one, with which it will be confronted and for dealing with which it will be adequately equipped. Regionalisation of the hospital services would not only unify the tuberculosis services of the country, but each area would be sufficiently extensive economically to provide all known facilities for prevention, diagnosis, and treatment of the disease.

Civilian Mass Radiography

In particular, under such a scheme, would it be possible to develop civilian mass radiography,⁹ the first filter through which would pass any suspected cases of intrathoracic disease. Mass radiography is the greatest contribution radiology has made to preventive medicine and is the most practical, economic, and reliable single means of detecting intrathoracic lesions in large groups of presumably healthy subjects. By discovering such disease where it is present it can enhance the value of the tuberculosis service in that it will both help to reduce the incidence of the disease and, by instituting early treatment, the mortality resulting from chest diseases altogether.

Cases of actual or suspected intrathoracic disease discovered by mass radiography or through the intervention of the general practitioner will be automatically referred to the Chest Clinic, which will constitute the Out-patient department of the Chest Service. If In-patient treatment is required it will then be possible to admit the patient to hospital under the same authority and very probably initially under the care of the same physician, who should, *ipso facto*, always have a sufficiency of beds at his disposal. In scattered rural areas it would probably be found desirable to have secondary "visiting stations" in addition to the main Chest Clinic, but these would be affiliated to the main regional hospitals, thus obviating any difficulty in the organisation of In-patient treatment. Moreover, it should be a cardinal principle of any such service that the individual patient should attend at the centre nearest his own home, irrespective of local authority boundaries.

Chest Unit

The In-patient aspect of the Chest Service, the Chest Unit, would fall into several categories, as indicated in the accompanying chart. There would need, first, to be beds allocated to cases

requiring observation or special diagnostic aids. Then, as the service is to comprehend all chest diseases, the department, for preference in pavilion form, would provide beds for the many non-tuberculous cases of pulmonary disease which are, to-day, all too frequently disregarded after reference to the Chest Clinic by reason of the fact that they are not tuberculous and, after diagnosis, they are commonly referred back to the general practitioner, passing outside the sphere of the local authority and, in consequence, often failing to receive treatment. For although such diseases as chronic bronchitis, emphysema, bronchiectasis, cancer of the lung and other pulmonary conditions constitute a less dangerous scourge than pulmonary tuberculosis they may equally well be a source of gross disablement unless they receive early treatment to which they frequently respond very satisfactorily. In the space at my disposal it is impossible to detail the varied forms of treatment, including a full scheme of rehabilitation, which such cases would require.

The sanatorium, as already described, would absorb another proportion of the beds of the Chest Unit, and it is a *sine qua non* of an improved service that these should be adequate to the needs of the community and that the appalling waiting-lists of to-day should no longer be tolerated. The association of the sanatorium with the general hospital would make it possible for patients suffering from a superadded, non-pulmonary disease, as, for example, tuberculosis concurrently with diabetes, to receive the special treatment required for both of these diseases. The particular example I have quoted is a notorious example of a not infrequent flagrant lack of facilities afforded to-day where the diabetic in a sanatorium is a most unfortunate victim of the lack of co-ordination of the medical services with the result, I have been told by physicians in charge of diabetic patients, that he frequently does not enter a sanatorium at all since there his diabetes would, more likely than not be inadequately controlled.

Thoracic Surgery

Yet another section of the beds of the Chest Unit would be allocated to thoracic surgery, a rapidly expanding and highly specialised service which will make large demands on the educational programme of the Chest Unit of the future, in the realm both of doctors and nurses.

Rehabilitation

A fully developed scheme of rehabilitation is now regarded as an integral part of In-patient treatment in long-term diseases, and includes the many aspects of physical medicine. The need for

economic assistance to the patient and his family during and after treatment has already been recognised by the Government, although, indeed, the scale of allowances is small and in practice often works out at a lower level than some of the grants previously made by local authorities. Furthermore, in the Tomlinson *Report on Rehabilitation*,¹⁰ the need for a gradual return to full or protected employment is recognised. The stages of rehabilitation may be summarised as after-care, in which the patient's physical health is the main consideration, occupational therapy, which caters for his mental attitude during convalescence, vocational guidance, which endeavours to train him for some trade or occupation compatible with his altered state of health and, finally, assisted return to employment, which equips him once more as a useful citizen.

The ideals of my old chief, Marcus Paterson,² introduced at Frimley in 1905, formulated the first principles of work therapy. He prescribed absolute typhoidal rest, graduated rest, graduated exercise, and work therapy, preliminaries to industrial rehabilitation. The village settlement introduced by Varrier Jones³ in 1916 was a later example of rehabilitation through a work training colony where patients' activities are limited by their physical abilities, and where they can progress by easy stages to a full and normal working day. The Ministry of Labour in 1942 put forward a scheme for the training and re-settlement of quiescent cases of pulmonary tuberculosis, and the Medical Research Council's Committee of Tuberculosis in Wartime (1942)¹¹ suggested that State subsidies should make pay equal to the normal rate for each particular job. For chronic and permanently disabling cases it has been suggested (*Lancet*, October, 1942) that pensions should be granted comparable in value to the pensions of disabled ex-service men.

Dietetic Service

"Good diet is as necessary to recovery of health as good nursing, surgery, or medicine,"¹² yet institutional food to-day is universally condemned for its monotony, bad cooking, and sometimes for its inadequacy.¹³ None will surely disagree that this indictment must be removed from the hospitals of the future for the value of appetising food, well served and cooked, particularly in a long-term disease such as tuberculosis, is an essential constituent of In-patient treatment. Not only is a properly planned diet needed for purely physical health, but eating is besides a social function, reacting on the patient's mental outlook, and it is important that right through the buying, preparing, cooking, and serving processes it should

be organised scientifically. A food advisory committee has been advocated and the responsible catering supervisor should have adequate powers. Medical and nursing students should be taught the importance of diet while the function and numbers of dieticians should be increased. Finally, kitchen equipment must be modern and adequate with sufficient staff to manage it, for while hospital food in its raw state is generally of first quality, its subsequent handling all too often reduces it to what is commonly known as "institutional food."

Social Service Department

The social service department of a hospital is an important link between the hospital, the patient and his home. The Nuffield Chair of Social Medicine has publicly recognised the inherent significance of such a department and its function is certainly capable of considerable extension. It must, however, be remembered that social medicine is an integral part of the general medical services and not a separate entity. I would venture to criticise the need for a special chair from this point of view, although I acknowledge that circumstances may have demanded an endowment. The tuberculosis services have, any rate, for a long while and to their great credit included a large measure of social service as part of their programme.

Social medicine so ably described by Ryle involves, over and above the work of the physician, the work of the Almoner's department with its affiliated Health Visitors and after-care department, and also the problems of financial allowances, rehabilitation, and protected employment. These problems apply to almost every sub-acute or chronic disease, but with redoubled force to the problem of pulmonary tuberculosis and seem to me of such outstanding importance in the reorganisation of the Health services, that I propose to deal with them in such detail as the space at my disposal will allow.

The very existence of an Almoner's department has, in fact, for long recognised the principle of social medicine for, at its very inception, its function was to assess the contribution an individual patient could make towards his treatment. The Almoner is now a trained social worker with over and above this equipment, a working knowledge of the social and economic aspects of medicine. Her duties in the tuberculosis service of to-day are supplemented by the Health Visitor who is a trained nurse, well-versed in the social implications of disease, largely as a result of her daily contact with them. Acting in liaison and complementing each other's work the Almoner and the Health

Visitor form, in conjunction with the physician-in-charge, an essential link between the Chest Clinic and the home. They are able to investigate fully environmental conditions either fostering disease or preventing its cure, to become the friend and counsellor of the patients, whose co-operation it is their first task to win, and to secure the economic and medical restoration of the patient to useful citizenship. Regrettably, the work of the Health Visitor is to-day hampered by minor restrictions and lack of a unified service. Although it is not suggested that a regionalised Health Service with a Chest Service bound up with a large general hospital, will prove a panacea, its wider scope and greater facilities should be able to enhance the already valuable work of the Health Visitors. In the examination of contacts and the improved hygiene which they seek to establish in the home the work of the Health Visitor is to some extent preventive in character, while at the other end of the scale it is restorative in nature.

Conclusion

It is not suggested that the re-orientation of the tuberculosis service here outlined can be anything but a gradual process of evolutionary planning which must inevitably take time with these ideas generally, as an ultimate aim. I am aware of having stressed certain points which have been particularly interesting to me and of having omitted others of less immediate personal interest, but my purpose will have been achieved if I have indicated the need for a wider conception of the tuberculosis service of the future and, if I may be permitted the paradox, a more comprehensive unity so that the knowledge that science has acquired, and the ideals that ought morally to be fulfilled, may be co-ordinated in the interest of the patient, the community, and medical education.

Summary

1. The need for a wider conception of the future tuberculosis service has been emphasised, in the best interests of the tuberculosis sufferer, the community and medical and nursing education.
2. This envisages a Chest Service to include an Out-patient Chest Clinic and an In-patient Chest Unit, in pavilion form with an affiliated sanatorium, adequately equipped and staffed

and with an adequate number of beds, as a department of a general teaching hospital organised on a regional basis.

3. Details of the functions of such a service have been described.
4. Tuberculosis would be included as an integral part of the medical and nursing training curriculum.
5. In addition to the adequate control and treatment of all cases of pulmonary tuberculosis the treatment of all other disabling conditions of the lungs, hitherto outside the province of the "tuberculosis dispensaries," must be comprehended in the future Chest Service.
6. A statistical department would integrate statistics of all forms of tuberculosis.
7. No chest physician can be a specialist in every form of tuberculosis and hence specialised forms of tuberculosis such as skin, eye, ear, nose, and throat, bone and joint tuberculosis are best dealt with by specialised departments. This is facilitated by the establishment of the tuberculosis service within the framework of a general hospital.
8. A full scheme of rehabilitation in all its aspects is an integral part of the care of the tuberculosis patient.
9. The social service department, comprising the functions of the Almoner and the Health Visitor, forms an important link between the patient and his home, both from the preventive and restorative aspects.

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[See overleaf.]