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The HOSPITAL SERVICES *of* WESTERN EUROPE

Report of the

SECOND WESTERN EUROPEAN CONFERENCE

April 1964

Held at

THE HOSPITAL ADMINISTRATIVE STAFF COLLEGE

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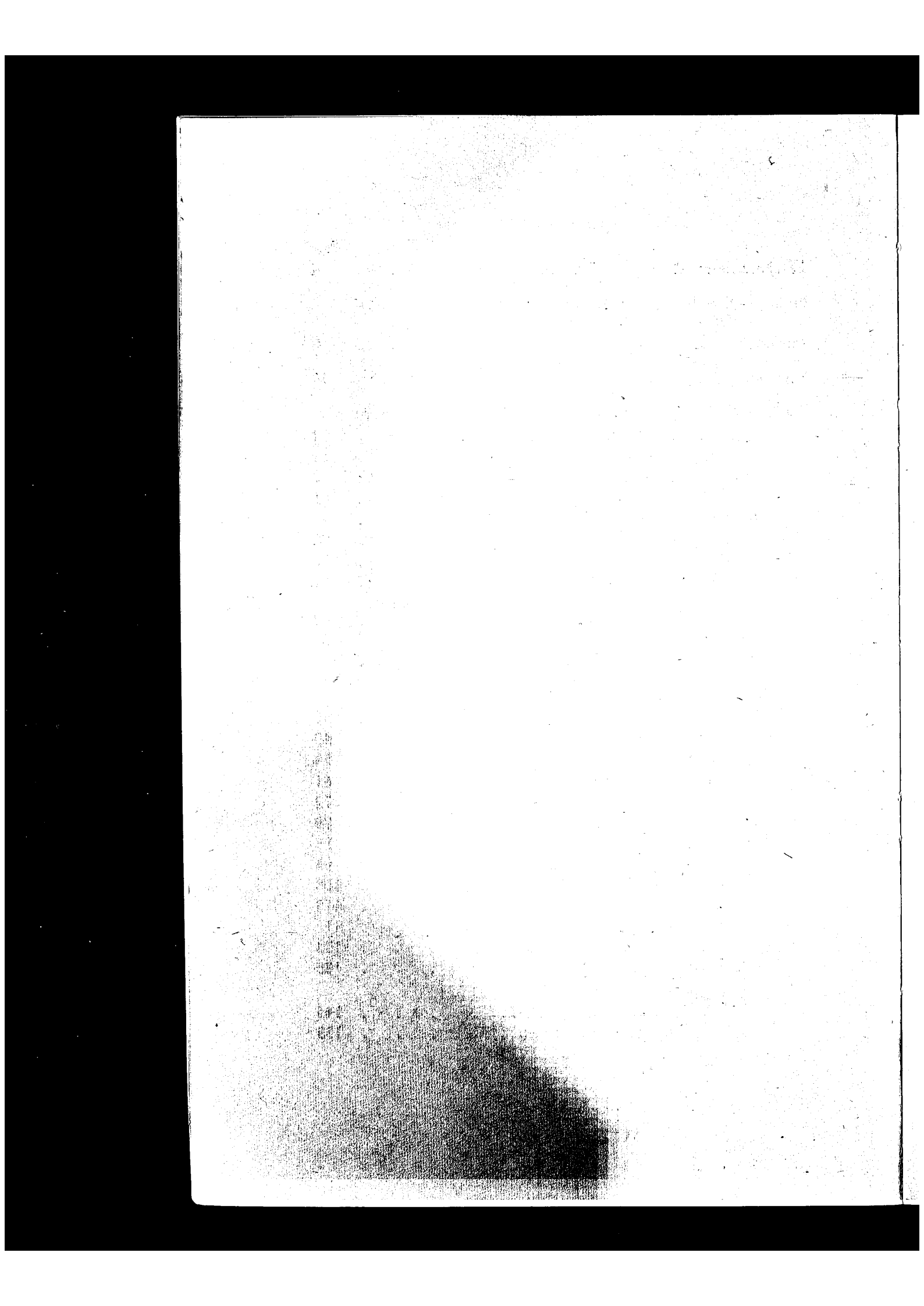

THE INTERNATIONAL HOSPITAL FEDERATION

PRESIDENT:
EDWIN L. CROSBY, M.D.

SECRETARIAT: THE HOSPITAL CENTRE, 24, NUTFORD PLACE, LONDON, W.1

The International Hospital Federation, founded in 1929, *when it was known as the International Hospital Association, is a non-profit making, non-political federation of all who work in or for hospitals. The official languages of the Federation are English and French.*

In pursuance of its objectives, the Federation, which has its headquarters in London at the Hospital Centre, 24 *Nutford Place, W.*1., *maintains a library and information bureau on hospital matters; offers advice and assistance to members on their special problems and in particular arranges hospital visits in any member country to meet individual needs and furnishes personal letters of introduction.*

The Federation holds an International Hospital Congress every other year, at which representatives of all branches of the hospital service can meet their colleagues from other countries and discuss common problems. Since 1949 *these congresses have been held in Holland, Belgium, England, Switzerland, Portugal, Scotland, Italy and France.*

In the intervening years the Federation organises study tours of hospitals in order to give members first-hand knowledge of hospital work in different countries. Countries visited so far include: Sweden, Italy, France, Ireland, Germany, U.S.A., Belgium and Israel. Both congresses and study tours are open to non-members, but members receive priority in the allocation of places and pay reduced registration fees.

The Federation supports international study committees on current hospital problems and runs courses in hospital administration. It also publishes a quarterly international hospital journal, "World Hospitals" in English and French, with summaries in German and Spanish. This journal is issued free to members to keep them informed of the latest developments in the hospital world.

Membership of the Federation is divided into four categories:

(*a*) *National hospital organisations, governmental or non-governmental, including national associations of public or private hospitals, ministries of health, and any other organisations concerned with hospitals at national levels.*

(*b*) *Any other organisations, associations and institutions whose aims or activities are directly concerned with the hospital service including professional organisations, regional or local health authorities, groups of hospitals and individual hospitals.*

(*c*) *Members of all categories of hospital staff, or professions concerned with hospital work, of hospital management committees or boards and any other persons actively interested in hospitals and their work.*

(*d*) *Firms and manufacturers doing business in the hospital field and publishers of hospital journals.*

PREFACE

During the first Conference on hospital services in Western Europe which was held in November 1962 at the Hospital Administrative Staff College of King Edward's Hospital Fund for London it soon became clear that not only would such a meeting of a selected number of people from different countries, living and working together for a week, produce valuable results, but also that it would not suffice for a full exchange of information on the many problems which confront hospital administrators in Europe today.

Accordingly, in April 1964, a second Conference was held at the Staff College under the joint auspices of the International Hospital Federation and the King's Fund, who are most grateful to all those who contributed the papers which are reproduced in this report, to Lord McCorquodale, who opened the Conference, to Mr. R. A. Mickelwright who again took the chair with such competence and tact and to Dr. H. M. C. Macaulay for his labours as editor of this volume. Once again the need for a further exchange of views and experiences was demonstrated and in consequence plans are being made to hold a third Conference at the Staff College in October 1966.

J. C. J. BURKENS, M.D.
Secretary General and Treasurer
International Hospital Federation.

INTRODUCTION

In November 1962 the First Western European Conference on the Hospital Services of Western Europe was convened by King Edward's Hospital Fund for London and held at the Hospital Administrative Staff College, Bayswater, London. This conference, which was attended by very senior administrators of the health services of Western Europe, discussed in general terms the pattern of the hospital service in each of the countries represented. A report of the conference[1] has been published containing a reprint of each of the papers presented together with a comparative study of the hospital services of Western Europe mainly compiled from the discussion which each paper evoked. The conference was thought to be so successful that it was decided that a second one should be held and this took place from the 20th to the 25th April 1964 and was conducted under the joint aegis of the International Hospital Federation and King Edward's Hospital Fund. As on the previous occasion the participants were invited as individuals and not as delegates and in the informal and non-governmental atmosphere of the King's Fund Hospital Administrative Staff College they were free to express their own personal views which might or might not coincide with the official policies of their respective governments. As before, those attending lived and worked together for a week at the Staff College and thus in addition to attending the formal sessions had opportunity for informal discussions and for establishing social contacts.

Papers were presented by the representatives of most of the participating countries. These were multiplied in advance and circulated and taken as read. At each of the sessions of the conference a writer spoke to his paper emphasising points of special importance and opening the way for discussion and questions.

A list of the participants follows. Many were those who had attended the previous conference and so met again as old friends. Unfortunately the representatives from France, M. Peyssard and from Sweden, Dr. Engel were unable to come and were sadly missed. The conference, however, were happy to welcome two newcomers, Dr. de la Mata from Spain and Dr. Ferreira from Portugal who were not able to attend the first

conference, and two observers from the U.S.A., Mr. Walter J. McNerney and Mr. Andrew Pattullo. Mr. Tornar from Austria, who was prevented at the last moment from attending, contributed a paper which in his absence could not well be discussed. In the gap thus created Dr. Bridgman of the World Health Organisation gave great pleasure by an impromptu account of the work of the W.H.O. and also some aspects of the administration of hospitals in France.

The Chair at the opening session was taken by The Right Hon. Lord McCorquodale of Newton, P.C., Chairman of the King Edward's Hospital Fund. At this session Dr. H. M. C. Macaulay, C.B.E., spoke briefly on the Book of the First Conference, for which he was largely responsible, and touched upon a number of topics and problems which could form the subjects of discussion at this or future conferences. Following this, the opening paper was given by Sir Bruce Fraser, K.C.B., Permanent Secretary to the Ministry of Health, and is printed in Part II of this volume. At subsequent sessions the Chair was taken by Mr. R. A. Mickelwright, O.B.E., lately Principal of the Staff College.

The Second Conference was presented with very definite and deliberately chosen terms of reference to form the basis of the papers and discussions. These were:

(1) In the changing context of hospital administration what are the most important problems of today?

(2) How are these problems being dealt with and what specific researches are in progress in Western Europe?

This report is in two parts. Part I endeavours to set out in summary form some of the salient problems presented to hospital administrators in the various countries of Western Europe; what is being done to solve these problems and what further measures need to be devised before solution is likely to come in sight. Part II contains a reprint of each of the papers presented.

PARTICIPANTS

Austria	*Mr. Rudolf M. Tornar, Administrative Director, General Hospital St. Pölten.
Belgium	Prof. Dr. S. Halter, Director-General, Ministère de la Santé Publique et de la Famille Shell Building, Rue Ravenstein 60, Brussels 1. *Dr. A. Prims, Director, Federation of Catholic Hospitals, 5 rue Guimard, Brussels. Dr. J. Blanpain, Centre for Hospital Sciences, Université Catholique de Louvain, Rue des Récollets 12, Louvain.
Denmark	Dr. C. Toftemark, Deputy Director General, National Health Service of Denmark, Copenhagen.
Eire	Mr. C. Ó. Nualláin, Assistant Director, Institute of Public Administration, 59, Lansdowne Road, Dublin 4.
Finland	†Prof. Dr. N. Pesonen, Director General, National Board of Health, Helsinki.
Italy	Dr. R. Donati, Secretary General, Arcispedale S. Anna, Ferrara.
Netherlands	Dr. J. B. Stolte, Medical Director, St. Elisabeth-Ziekenhuis, Jan van Beverwijckstraat 2a, Tilburg.
Norway	Dr. T. Hauan, M.D., Director, Division of Hospital Services, The Health Services of Norway, Oslo. Dr. H. Palmer, M.D., President, The Norwegian Hospital Association, Drammen Hospital, Drammen.
Portugal	Dr. (iur.) C. A. Ferreira, Director General of Hospital, Rua de Santa Marta (Hospital de Santa Marta), Lisbon 2.
Spain	Dr. M. de la Mata, Head of Hospitals Section 1a, Dirección General de Sanidad, Madrid.
Switzerland	Dr. (iur.) F. Kohler, Director, Inselspital, Bern.
Western Germany	Dr. S. Eichhorn, Director, German Hospital Institute, Klosterstrasse 35, Düsseldorf 4.

* Unable to attend

† Unable to attend, place taken by Dr. I. Väänänen, M.D., State Medical Board of Finland.

United States	Mr. Walter J. McNerney, President, Blue Cross Association, Chicago. Mr. Andrew Pattullo, W. K. Kellogg Foundation, Battle Creek, Michigan.
W.H.O.	Dr. R. F. Bridgman, M.D., Chief Medical Officer, Organization of Medical Care, World Health Organization, Geneva, Switzerland.
Great Britain	Prof. T. E. Chester, Department of Social Administration, University of Manchester, Dover Street, Manchester 13. Mr. A. A. Hughes, Under-Secretary, Scottish Home & Health Department, St. Andrew's House, Edinburgh 1, Scotland. Mr. J. Kinnaird, Lecturer in Medical Services Administration, Usher Institute, Warrender Park Road, Edinburgh 9, Scotland. Dr. H. M. C. Macaulay, C.B.E., late Senior Administrative Medical Officer, North West Metropolitan Regional Hospital Board, London. Dr. D. Macmillan, Director, Nuffield Centre for Hospital and Health Studies, The University of Leeds, Albert Mansbridge College, Leeds 2. Mr. R. A. Mickelwright, O.B.E., Brockwell, Weston, Nr. Honiton, Devon. Mr. G. McLachlan, Secretary, The Nuffield Provincial Hospitals Trust, 3, Prince Albert Road, London N.W.1. Mr. F. Reeves, Principal, Hospital Administrative Staff College, 2, Palace Court, Bayswater, London W.2. Mr. S. R. Speller, O.B.E., Secretary & Director of Education, The Institute of Hospital Administrators, 75, Portland Place, London W.1. Professor W. S. Walton, G.M., Professor of Public Health, London School of Hygiene & Tropical Medicine, Keppel Street (Gower Street), London W.C.1.
International Hospital Federation	Dr. J. C. J. Burkens, Secretary General, International Hospital Federation. Private address: 2 Nieuwe Plantage, Delft, Netherlands. Mr. D. G. Harington Hawes, Director General, International Hospital Federation, The Hospital Centre, 24, Nutford Place, London W.1. Miss D. Maitland, Editor, World Hospitals, International Hospital Federation, 24, Nutford Place, London W.1,

and a nominee of the Ministry of Health.

PART I

THE CHANGING PROBLEMS OF HOSPITAL ADMINISTRATION

by

H. M. C. MACAULAY, C.B.E., M.D.

THE CHANGING PROBLEMS OF HOSPITAL ADMINISTRATION

Participants in the Second Western European Conference on Hospital Administration were asked to direct themselves to the following terms of reference:

(1) In the changing context of hospital administration what are the most important problems of today?

(2) How are these problems being dealt with and what specific researches are in progress in Western Europe?

These terms were deliberately chosen to bring into prominence problems which other countries are facing and to see how far they are common. In spite of the widely varying pattern of the hospital service in the countries represented there was found to be a marked similarity in kind of the problems presented although there were naturally differences in degree between countries. Most hospital services were troubled by shortage of staff and shortage of money, most were seeking a yardstick to determine genuine hospital need as distinct from demand and most were experimenting with various devices to improve efficiency.

As will be seen from the text, ready-made solutions to most of the problems presented do not readily leap to the eye. It is to be hoped, though, that the very fact of discussing and setting down on paper a number of the difficulties being encountered by hospital administrators in many of the countries of Western Europe will stimulate thought in many quarters which will perhaps lead to the elucidation of problems which are besetting an essential humanitarian service.

GENERAL CONSIDERATIONS

Throughout most of Western Europe (indeed throughout the world) the population is increasing and people are living longer. For example the Netherlands, already one of the most densely populated countries, has a population of 12 millions which it is estimated will have grown to 17–20 millions by the end of the

century, i.e. in thirty-five years' time. There is a steady increase in the number of dependants, the young and the very old, those potentially most in need of medical care. Moreover in most of Western Europe there is a rising standard of living and a higher standard of education. Through the influence of the press, radio and television the public is becoming much more knowledgeable, health-conscious and critical so that all countries must face not only an increased need of medical care per head of population but also an increased demand. This is being experienced in Great Britain at the moment particularly in regard to maternity accommodation due largely to social, domestic and housing difficulties.

The progress of medicine needs constant adaptation of health services to changing conditions and this applies to buildings, staff and means of communication. Rational planning is very difficult in the absence of more factual information than at present exists.

More statistical enquiry into morbidity is required to determine more accurately the need (as distinct from the demand) for hospital treatment. Several such studies have taken place in England[2, 3] and these have been taken into account in the Ministry of Health's Hospital Plan.[4] In translating the results of such studies (even if they are accurate) into terms of hospital beds the figures may be upset by movements of the population, for populations are by no means static and people in numbers can move from one part of the country to another far more quickly than hospitals can be planned and built. This is no new phenomenon. Samuel Johnson wrote in the 18th century that the finest view in Scotland in a Scotsman's eyes was the high road to England! Today there is a general movement of population from the north of England to the south-east and in Portugal a movement from east to west, concentrating upon the seaboard.

A supply of beds much in excess of genuine need may create its own demand—which might be expressed as a variant of Parkinson's Law 'The demand for hospitalisation will expand to fill the number of beds available'. Up to a point this is true for where there is no pressure on hospital accommodation there is

no incentive to the staff to turn over beds at a reasonable rate and if patients are not making direct payment for treatment there is little incentive to them to seek discharge as soon as they are ready for it. A waiting list of moderate length is a necessity so that non-urgent cases may be admitted at off-peak periods. If there is no waiting for admission a hospital must be maintained and staffed at peak level throughout the year even though at times it is partly empty of patients. A moderate sized waiting list acts as a kind of buffer.

In most Western European countries there is insufficient co-ordination between the preventive, domiciliary and hospital services largely due to the manner in which these several services have come into being and evolved. This is unfortunate for it leads to gaps, overlapping and waste in medical care. Co-operation is something which cannot be enforced, except perhaps in a totalitarian country, and is not even secured by common ownership of the various branches of the health service. It is however one of the functions of a good hospital administrator to do all in his power to further integration and in addition to co-ordinating the departments and services of his own hospital to be outward looking and by whatever means are available to him—usually through the medical staff—try to integrate the hospital with outside services giving medical care. Unless this can be achieved in the years to come hospitals will continue to have a vested interested in curative medicine, that is to say disease, which is negative and unproductive. In this connection the suggestion has been made in several quarters that both curative and preventive medicine should be based on the district hospital. This indeed is a policy put forward by the World Health Organization[5] namely that the hospital should be a centre of both preventive and curative medicine and that its services should stretch out beyond its walls into the homes and work places of the community.

Western Europe on the whole contains a highly sophisticated society but there are a few areas which are relatively underdeveloped. In these the advice of that great American sanitarian the late John B. Grant[6] should be borne in mind. He continually stressed that health care should be an integral part of general socio-economic development—hygiene, education,

food-production, housing and communications. In as much as measures to this end fall short of what is desirable the establishment of hospitals on an elaborate scale is largely a waste of money.

MEDICAL CONSIDERATIONS

The changing face of medicine is continually throwing up new problems of a medical or medico-social nature and these make changing demands upon the health services particularly in hospitals. Many diseases have been brought under control; these are largely infectious diseases (e.g. diphtheria, poliomyelitis, tuberculosis, streptococcal infections) and their decrease follows nation-wide schemes of immunisation and the use of sulpha- and antibiotic drugs. As a consequence many ad hoc isolation hospitals have been closed down or diverted to other purposes and the fear has been expressed that this policy of closure may have been overdone and that a country might find itself in trouble in the event of a widespread epidemic of serious nature.

Death-rates in many countries—not only those of Western Europe, which often showed spectacular falls following the introduction of new drugs, are levelling out or showing small rises under the impact of other diseases and injuries. The pace of modern life and changes of social habits are manifesting themselves in the so-called stress disorders such as coronary disease and psychosomatic disturbances. Increase in industrialisation and the enormous growth of motor traffic are polluting the atmosphere with a corresponding toll of respiratory diseases. Cancer of the lung, associated with the cigarette habit is on the increase, enormously so in Great Britain and the U.S.A.

In this atomic age the possible affects of radio-activity on the body (and indeed on future generations) have constantly to be looked for. Road accidents on a terrifying scale have come to be accepted as part of the normal pattern of our daily lives and this has necessitated the setting up of specially staffed and equipped accident centres in major hospitals to deal with them.

Horace wrote:

'Naturam expellas furca tamen usque recurret' and it is as true today as when he wrote it two thousand years ago. Nature has a way of reasserting herself however much she is driven out.

In countries where industrialisation is proceeding, industrial diseases and accidents are bringing their problems. In this connection there is much to be said for establishing departments of occupational health in hospitals situated in industrial areas, not so much for the treatment of industrial diseases and accidents as for the identification of occupational hazards and the prevention of injuries to health in factories and workplaces.

The very considerable increase in medical knowledge during the past two or three decades has brought with it an increasing degree of specialisation, as no human brain can hope to comprehend more than a fraction of the field of medical science which is now exposed. Specialisation, then, is necessary and must not be discouraged, but as pointed out by Titmuss[7] it has its dangers. Fragmentation of services to patients, departmental thinking, administrative pre-occupation with detail and absence of self-criticism can create an atmosphere in which social and psychological harm is actually done to patients. Moreover it can lead to over treatment.

In some countries reference of a patient to a specialist is invariably by the family doctor (save in emergency)—this is the position for example in the Netherlands and in Great Britain. In those countries however where the family doctor system is not strongly developed the choice of specialist, that is to say the primary diagnosis may devolve upon the patient.

The relation of the general practitioner or family doctor to the hospital varies widely between one country and another. Portugal has adopted an open door policy and the general practitioner is at liberty to treat his patients in hospital. This is not statutory but has evolved naturally. Denmark gives to general practitioners access to diagnostic facilities but not to beds. The granting of direct access to the hospital departments of radiology and pathology enhances the interest of a general practitioner in his work, encourages him to pursue scientific medicine and is a means of keeping patients out of hospital and under the care of their own doctor at home. It is being applied

by an increasing number of hospitals in Great Britain throughout the country, is found practically never to be abused[8,9] and is relatively inexpensive.

Throughout much of the world there seems to be a feeling of general dissatisfaction and growing frustration on the part of general practitioners,[10] due in part to their sense of isolation. To this they may themselves have contributed, as doctors are by training individualistic. A young doctor setting up in general practice soon discovers that the kind of case he is called upon to treat and the means at his disposal for diagnosis and treatment are very different from what he has experienced in hospital during his undergraduate medical education. Continued association with a hospital, which is the chief growing point of medical knowledge, is most desirable for a general practitioner, whether or not this gives him access to beds in which to treat his patients. Personal contact with hospital staff by way of ward rounds and clinical meetings, direct access to the diagnostic departments of a hospital, the use of the hospital library and paid part-time appointments to certain of the special departments are ways of stimulating a family doctor's interest and keeping him abreast of modern advances. A longer-term view of the family doctor's function is that he should become much more an apostle of preventive medicine than he has been in the past. With the decline of many acute illnesses the importance of degenerative and neo-plastic diseases has become enhanced. By the time some of these have produced symptoms the chance of arrest may have diminished or disappeared. The presymptomatic detection of some of these conditions has become a fairly simple matter thanks to recent technological advances. The family doctor has access to most of the population but to enable him to play his part in preventing or postponing the onset of certain mortal or disabling diseases some conditions need to be fulfilled: he must have adequate time to do his work, i.e. the ratio of family doctors to population must be increased: he must have access to a suitably staffed and equipped laboratory and, most important of all the curriculum of his undergraduate medical course must be radically amended to keep in step with the changes in medicine which are taking place. Hence this is a very long-term view.

A good deal has been written and said about 'medical audit', that is the assessment of the *quality* of medical care. Hitherto the standards of medical care have been quantitative—length of stay in hospital, number of operations performed, cost of drugs prescribed etc. Figures such as these, intelligently and comparatively used may provide pointers but they really reveal very little about skill in diagnosis or efficacy of treatment. Up to a point quality of care including the need for admission to hospital at all can be estimated by a doctor's colleagues, or independent medical men of high repute reviewing a case in retrospect with the records before them. The strongest advocates of medical audit are representatives of insurance companies who naturally have an interest to keep costs down. Studies have been published in the United States,[11] where a high proportion of the population are covered by prepayment schemes of insurance, which suggest that in some instances a reasonable degree of medical skill has not been applied or that some operations have been performed which were not strictly necessary. The knowledge that such a check could be applied might have some effect upon a not over-careful or over-scrupulous doctor but the fact remains that medical practice is an art and the question inevitably arises 'Can one assess an art?' especially one in which such an infinite number of variables occur, for every case is a patient and no two patients are alike.

In the Netherlands the sick funds employ 400 'control doctors', senior men in the medical profession, whose function it is to check that hospital treatment is not provided beyond an agreed level of service. This system has been criticised on the grounds that it makes an uneconomic use of skilled medical manpower and also that it might well tend to inhibit new developments in medicine. It would certainly seem that this might be so if a physician must be constantly looking over his shoulder to see what 'big brother' is doing. Consultation by senior members of the medical staff of a hospital over cases of difficulty, as is common practice in many places, has everything to commend it, but retrospective medical audits with a disciplinary motive are likely to do more harm than good unless there is good reason to suspect something wrong.

Very little was said at the conference about mental illness but

the view seems everywhere to be gaining ground that the place of the large ad hoc mental hospital is declining and that more and more psychiatric cases should be treated in clinics as ambulatory patients, supplemented where necessary by day hospitals and night hostels. When admission is necessary it should be to the psychiatric wing of a general hospital.

SHORTAGE OF STAFF

Many of the countries represented at the conference including Belgium, Denmark, the Netherlands, Norway, Switzerland and the United Kingdom drew attention to the difficulties encountered in hospitals through insufficient staff, medical, nursing, technical and manual. This is a state of affairs which is likely to persist throughout the foreseeable future and stems from a number of causes. There are so many alternative occupations, especially for women, available today. A hospital, usually working to a restricted budget, has to try and compete with industry in terms of salary, hours of work and amenities. It has to be staffed twenty-four hours a day and seven days a week and this at a time when shorter working hours are being demanded—and obtained—throughout industry. Hospitals are by no means unique in experiencing staff shortage. In many countries and in many occupations there are more openings than there are suitable people to fill them and several speakers commented on the fact that the labour policy of the Common Market will have repercussions on this problem.

So far as nurse-shortage is concerned, many an adolescent girl has the urge to take up nursing, feeling it to be, as it is, a satisfying career. Between the time she leaves school at the age of, perhaps, sixteen plus and the time she can be accepted as a student nurse there is a gap. This she fills by taking a temporary job which all too often becomes permanent and she is lost to nursing. Various devices have been tried for bridging this gap to keep the girl in touch with hospital but none has proved outstandingly successful.

One of the reasons for the shortage of qualified nurses in hospital is the simple biological fact that the age of qualification more or less coincides with the age of marriage and the demands

of hospital life are not very compatible with those of a home and family, although efforts are made to attract married nurses back to hospital on a part-time basis.

To some small extent the shortage of nurses is due to maldistribution. This is the case in Great Britain where some of the London teaching hospitals with their reputation and tradition are very generously staffed in comparison with non-teaching hospitals in the provinces. In Denmark the reverse is the case, the greatest shortage being experienced in Copenhagen. There seems little that can be done about this, for without direction of labour, which is unthinkable in peace-time in a democracy, the transfer of staff to less well staffed hospitals is almost impossible.

Coincident with nurse-shortage there is increasing and legitimate demand from the public for more single rooms and small wards which need a higher ratio of nurses. To the extent that this demand is met, the public must needs be content with nurse-call microphone communication systems, already installed in a number of hospitals, with lack of patient-observation and risk of isolation through technical breakdown which such systems entail. Mechanisation, indeed, is one of the ways in which staff shortage is being met in wards, laboratories and offices, not only to reduce cost (although the pay-roll accounts for 60% to 70% of a hospital's running costs) but because suitable staff in adequate numbers do not exist to run hospitals in the traditional way. The age of machines to take the place of the human hand and the human brain in many parts of a hospital has emphasised the need for staff of specialised skill to operate the machines and interpret the results. The training of such staff itself creates a problem.

Over-specialisation of staff (as well as of buildings) leads to lack of flexibility with consequent loss of manpower; and too much localised efficiency (departmental thinking) can lead to loss of efficiency as a whole. Work-study in hospital life is a comparatively recent introduction and there can be little doubt that many tasks now undertaken in hospital are not strictly necessary or could be performed with greater efficiency and economy in man-power given improved methods and more suitable or better arranged equipment. In job-analysis and operational research hospitals lag a long way behind the best in industry.

In view of the shortage of staff in almost all departments of a hospital the question has been asked as to whether training is too long. It is true that in a few of the semi-professional grades there has been a tendency in the past, here and there, to insist on a prolonged period of training for reasons more of prestige and status than of proficiency. On the whole, though, the growth in complexity of medical science and its ancillary branches would not justify reduction of the courses of training: indeed the reverse may well be true. In the case of nurses, where in so many countries a nurse 'learns by doing' shortening of the training course would not have any practical effect on staff numbers so far as the care of patients is concerned. Another question which is more relevant is whether in view of the shortage of skilled people it is reasonable to insist on a fixed retiring age for doctors, nurses and other skilled members of the staff. Today some of these very experienced people are compulsorily retired when they have the capacity for several years useful work before them. The system seems to be a relic from the time when there were many more people than there were jobs for them, whereas today in many countries quite the reverse is the case.

In any scheme of hospital extension or of new hospital planning very careful man-power budgeting and forecasting is necessary. In the United Kingdom there is a nearer approach to a scientific appraisal of the medical staff requirements of hospitals than is the case with most other forecasts. In all new hospital projects advance enquiry must be made as to probable sources of new staff and plans made for their training, for on staff more than any other single factor does the future of a hospital depend. There are many hospitals in the world today, some of recent construction, which are partly non-functional for lack of adequate and suitable staff.

COMMUNICATIONS

Increasing specialisation to which reference already has been made and continuing multiplication of diagnostic methods has led to the building of larger hospitals to enable differentiation

of specialities to take place. In a small hospital most of the staff have a fair idea of what is going on throughout the hospital and this spirit of communicativeness tends to be passed on to the patients. This is one of the reasons for the popularity of the small hospital. Patients and staff feel that they 'belong'. In a large hospital, unless communications are very well organised the institution itself may become mechanised, staff morale affected and patient care and recovery interfered with. There is a danger, in fact, of the patient regarding himself, and being regarded, as little more than a product on a conveyor belt. The size of hospital most easy and economical to run may not coincide with the highest staff morale and best patient care. This is not a plea for the small hospital as against the large (for the large hospital has a far greater potential efficiency) but a plea rather that the subject of communications in a large hospital should be taken very seriously as a major factor contributing to its success.

There are three aspects of communications which affect the life of a hospital. First there is need for interchange of information between members of the staff themselves. All too often senior staff members have but the vaguest idea of the general policy of the hospital—what extensions are proposed, what major staff changes are pending, what alterations in procedure in the out-patients department or in the service of patients' meals are being introduced. Frequent meetings of senior and other staff, attended by the hospital administrator or his representative, are very important in order that all may be acquainted with what is going on in the hospital. This point was stressed by the representatives of Switzerland, Finland and Portugal among others. Such meetings may be a little time-consuming but they are thought to be time well spent. Another suggestion made was that a hospital broadsheet should be issued from time to time setting out matters of common interest concerning hospital policy and either posting it on notice boards in staff common rooms or issuing a copy with pay-packets.

Another aspect of communications is that between staff and patients. So often one finds that a patient on discharge has no idea of what has been done for him in hospital—and this is not necessarily due to lack of intelligence of the patient. A very fre-

quent complaint (and it is a serious one) is 'Nobody told me anything'. Specialisation leads to fragmentation of care and a patient may be properly and necessarily passed from department to department for investigation. If he is not told in simple language the reason for this and given some indication of what has been found his fears and anxieties, inseparable from his hospital environment, are likely to grow. A patient's closest contact in hospital is with the nursing staff and it is most important that sisters and the more senior nurses should be given the information, including interpretation, they need to do their work. The medical staff, in particular, should regard it as part of their duty somehow to make time to talk to their patients and allay their anxieties of which uncertainty is probably the worst.

The third aspect of communications is with the outside world. The public image of a hospital should be that of a friendly, helpful place and one which is a part of, and belongs to, the community which surrounds it. The first point of contact between a hospital and a patient and his relatives is the outpatient or the casualty department and it is especially important that a good first impression should be made here; for first impressions, good or bad, are apt to be lasting. As pointed out by speakers from Belgium and Great Britain the employment of hostesses or receptionists, chosen chiefly for their personal charm, good temper and *savoir-faire* can do much by their sympathy and understanding to help a worried and frightened patient and his relatives.

Every effort should be made to maintain cordial relations with health agencies outside the hospital and with general practitioners. In this connection especial care should be taken to ensure that a patient's family doctor is kept informed of his patient's progress and is notified *promptly* of his condition on discharge with any necessary advice on further treatment. Parsimony in the number of medical secretaries necessary for this work is very false economy.

The press should be given as much information as is consistent with maintaining a proper degree of confidence on matters which should be so treated. In this connection it may be desir-

able to designate one of the administrator's staff as public relations officer.

FINANCE

Demands for money to expend on health services have to compete with those needed for other essential services—defence, education, roads, housing etc. and the amount available depends relatively upon the proportion of the national income which a country is willing and able to spend on health. Again, the amount of money which can be afforded will vary absolutely with a country's national income, for some countries are more wealthy than others. Nevertheless the population of a wealthy country with a high standard of living will not be content with a second-rate health service, so public demand may well force a high level of expenditure on health in such countries. Hospitals are very expensive things both to build and to run and a country in straitened financial circumstances (and some countries in Western Europe can properly be so described) is wise if it devotes its limited resources to the improvement of its environmental, preventive and domiciliary health services rather than building large and expensive hospitals which it may find itself unable to maintain.

Most countries represented at the conference complained of the lack of money to provide the kind of hospital service considered desirable. In respect of Austria it was claimed that shortage of money prevented in particular the financing of experimental schemes which might or might not show an immediate economic return. In some countries, of which Norway is one, which depend largely upon social insurance funds for financing their hospitals, lack of full coverage from the funds, with consequent ever increasing load on local taxation has discouraged any hospital expansion, especially in poorer regions where it is needed most.

The cost of medical care is everywhere rising. In the U.S.A. it was stated that the cost of medical care is growing at twice the rate of other expenditures. This is causing concern on two counts. Doubt is being expressed as to whether full value is being obtained for money spent—hence *inter alia* the pressure for medical audit. Second, concern is felt at the present in-

balance in that admission rates are much higher for those well covered by insurance; and well-to-do people make many more demands on doctors and dentists than do the poor,[12] leaving the uncomfortable impression that poor people in the U.S.A.—and there are many—are not getting the medical care they need. These doubts are not confined to the U.S.A.

Shortage of money for hospital services exists in greater or lesser degree in all countries of Western Europe—and beyond. It will continue throughout the foreseeable future so that it is something we must all learn to live with. Like a prudent housewife we must make the most of our allowance, meagre though it be, and try to extract the utmost value for every pound, franc, mark, krone, etc., spent—and this without irritating cheeseparing parsimony or the starving of an essential service. Before an economy can be intelligently planned it is necessary to know with much greater precision and in finer detail than is at present available how money is being spent. Departmental costing, a uniform accounting system and standardisation of hospital statistics provide a basis for inter-hospital comparisons of staff, consumption, performance and costs. Whilst not in themselves providing an answer these factors indicate points in a hospital where scrutiny is necessary to see whether an apparently unduly high (or low) cost is justified by local circumstances. All hospitals have their individuality and therefore differ from one another and before attempting comparisons it is necessary that these differences should be ironed out, so far as possible, by statistical analysis.

In order to keep within its budget and to provide a measure of financial control a hospital needs to know *at any time* its rate of expenditure and current reserves. It is of very little use having these figures a month or two late, when the time for effective action may have passed. They need to be almost up to the minute if they are not to be almost valueless and to achieve this end the use of up to date accounting machines is essential.

Every effort should be made to inculcate economic thinking into the minds of all members of a hospital staff, especially the medical staff. It is doubtful if many doctors know the very high price of some modern drugs, particularly proprietary ones,

or how much it costs to produce an x-ray film or carry out some of the more difficult pathological investigations. Until recent times such things were regarded as outside a doctor's province and in any event they were not of any particular consequence as drugs at one time were quite inexpensive and diagnostic procedures far less frequently used. Today, however, these things represent a very appreciable part of a hospital's budget. Whilst no one would or should wish to interfere with a doctor's uninhibited right to prescribe what he thinks necessary for the good of his patient there is no doubt that in most hospitals there is extravagance in prescribing both of drugs and procedures, often on the part of junior medical staff. Economy in these matters cannot be achieved by regulation but only through the goodwill and active co-operation of all concerned. Economy is wise spending and it may be necessary to remind the staff that some much needed extension or equipment can only be obtained through corresponding savings in some other directions.

Several participants of the conference among them Spain, Switzerland and Great Britain stressed the importance of central purchasing. There is no doubt that if a group of hospitals are able to agree on a range of standard articles and place bulk contracts for them substantial savings can result.

BUILDING

In most of the countries of Western Europe a hospital building programme is regarded as a necessity and in many places is already being planned or carried out. In some countries, e.g. Belgium, Denmark and Great Britain, additional beds are not needed, but many existing beds are housed in buildings which are worn out, of poor quality and generally do not conform to modern medical requirements. Or, owing to change of user or movements of population they are now in the wrong place. This applies, particularly in Great Britain to some of the old-fashioned mental hospitals and hospitals for the tuberculous which it is intended in due course to discard. In some places completely new hospitals are required either to serve the needs of new towns or new communities or to replace obsolete buildings. Elsewhere extensions to existing buildings will serve

the purpose, not necessarily to provide more beds but to cut out bottle-necks by building more laboratories, x-ray rooms and operating theatres. These are the departments which by their usual inability to grow to keep up with the growth of medical science have rendered many of the older hospitals inefficient. Another much needed extension in many countries is the out-patient department or policlinic where so much 'diagnostic work-up' is capable of being done thus obviating the need of admission for investigation.

Improvement of old hospitals and the building of new ones is being hampered not only by the shortage of money, which is bad enough, but by the capacity of the building industry. In most countries building is going on apace, to improve housing, to provide new factories and to make good the ravages of war. There is more work available to building contractors than they are able to undertake in many countries of Western Europe. Hospitals are difficilt things to build and slow in construction. A contractor usually prefers a less complicated job in which he can utilise his workmen and equipment more quickly. One of the ways in which the situation can be eased is by the use of standardised building components. This does not by any means imply the standardisation of hospitals or departments, which could be disastrous, but if a uniform module could be agreed together with a standard planning grid a number of components such as ceiling panels, partitions, doors, windows etc. could also be standardised and mass-produced off the site. This would lead not only to reduction in cost but speed in erection. The subject is dealt with more extensively in Mr. Tatton Brown's paper in Part II of this book.

In any new hospital building the greatest possible degree of flexibility should be the aim. However carefully a hospital is planned it is certain that changes in medical and nursing procedures will demand a change in user before very long. The adoption of an all-purpose ward which can be used for medical or surgical cases and for either sex (or both sexes) and of all-purpose consulting-examination rooms in the out-patient department will do something to allow alterations in use to take place without disrupting the work of the hospital. It is true that a few departments (e.g. paediatric and obstetric) need special

individual planning, but these should be kept to a minimum. Growing points in the hospital need to be identified (e.g. laboratories, x-ray, out-patients department) and provision made for them to be capable of extension as the need for this becomes manifest.

In planning a new hospital to serve a new community it is sometimes overlooked how great is the demand of a modern hospital on public services—water, electricity, drainage, telephones, preferably gas and especially public transport and it is vital to be sure in advance that these services are available, or can be made available, in capacity equal to, or preferably well in excess of, a hospital's needs before a site is finally chosen. Travelling is now much more easy than it was formerly and the size and sitting of a hospital depends more upon its scientific and economic possibilities than upon the perhaps clamorous demands of a limited population.

Anyone who has had the task of preparing an architect's brief and guiding him in the functions and requirements of each department will know that for this purpose a really *small* committee is needed. In a multitude of counsellors there may be wisdom, but a large committee with members often expressing contradictory views to the architect is unlikely to produce a good hospital. What is recommended is a small body consisting of, say, the chairman or member of the hospital board, architect, engineer, a doctor and a nurse (who should be expected to keep their colleagues informed of progress and bring their collective views to the committee), and an administrator. This committee should meet very frequently throughout the progress of the work until the hospital is ready to open. Specialists from the special departments can be invited as required when their department is under consideration. It is sometimes better that these should be acknowledged experts in their subjects rather than those who will work in the new hospital unless these happen to be men of outstanding wisdom. The hospital will still be standing after these have passed on and a specialist's view is sometimes limited by his existing department and its defects.

It is important that the general design of a new hospital should be planned by an architect of wide knowledge and

experience in modern hospital architecture. Later the detailed work can be passed over, if desired, to a general practising architect.

With the bringing under control of many infectious diseases —the acute specific fevers and tuberculosis—and a very different outlook on the treatment of mental illness the need for so many special hospitals is disappearing. Moreover the hospital for dealing solely with special groups of diseases—ophthalmological, urological, orthopaedic etc. is not the most efficient or economical way of dealing with these conditions. They are better handled in the special departments of a general hospital where they have the support of the general medical, surgical and diagnostic services. A very few highly organised (and therefore expensive) special hospitals however are desirable in most countries for intensive post-graduate education and as centres for research.

TRAINING OF HOSPITAL ADMINISTRATORS

In the report of the first Western European Conference[1] some outline information was given on what was being done by the several countries to train men and women to undertake the difficult and responsible task of administering a modern hospital. In some of the papers presented in Part II of the present work further information along these lines is given, bringing the account more up to date and filling in gaps in respect of some of the countries not previously represented. One of the problems touched upon at the conference in 1962 was that of the small country in which only a very few senior administrative appointments in hospital could be expected in any year. The labour and cost involved in setting up courses of training for so small a number of candidates is prohibitive and some international scheme of training might offer a solution. Some progress along these lines has since taken place. In Norway, Sweden, Denmark and Finland the suggestion has been made that training of hospital administrators, at any rate advanced training, should be arranged at Nordic level and planning to this end is going forward. In Spain, starting this year, there is a course of two and a half months duration in hospital administration for candidates

holding a university diploma. This is not only for Spaniards but for Latin Americans.

Some months after the First Western European Conference in 1962 certain participants and others had the opportunity of an informal meeting and discussion when the idea was put forward of establishing a European Association of Training Programmes in Hospital Administration. As a result, Dr. André Prims (Belgium) produced as a basis for discussion the following memorandum:

European Association of Training Programmes in Hospital Administration

I. *Aims*

(1) to discuss general problems in the field of training of hospital administrators.

(2) exchange of information concerning the programmes and the health systems.

(3) exchange of lecturers between the several European programmes.

(4) common invitations to non-European lecturers.

(5) exchange of students for internships.

(6) collaboration with the educational and training department of the Regional Office for Europe of the W.H.O.

(7) collaboration with the International Hospital Federation.

(8) aid to developing countries in the field of training of hospital administrators.

(9) to encourage studies and research in the field of hospital administration.

(10) to give advice in respect of setting up training programmes in hospital administration.

II. *Membership*

(1) *Membership A:* schools concerned with the full training of senior hospital administrators.

(2) *Membership B:* short or refresher programmes for senior administrative officers or schools providing short courses of benefit to potential administrators already employed in hospitals.

(3) *Membership C:* individuals directly concerned with training.

III. *Potential Members* (subject to further discussion)

Group A: (1) *Great Britain*
University of Edinburgh
University of Manchester
University of Leeds
King Edward's Hospital Fund for London
City of Westminster College

(2) *Belgium*
University of Louvain
University of Brussels

(3) *France:*
National School of Public Health
Ministry of Health. Rennes

Group B: (1) *Great Britain:*
London School of Hygiene
Institute of Hospital Administrators

(2) *Belgium:*
Federation of Catholic Hospitals

(3) *The Netherlands:*
The National Programme of Hospital Administration

(4) *German Federal Republic:*
Seminar for Hospital Administrators, The Institute of Hospitals, University of Köln.

(5) *Greece:*
Programme of Hospital Administration, Ministry of Social Affairs. Athens

(6) *Portugal:*
Programme of Hospital Administration, Ministry of Health. Lisbon

(7) *Spain:*
Programme of Hospital Administration, Ministry of Health. Madrid

(8) *Eire:*
Institute of Public Administration.

IV. *Organisation*

A. *General Assembly.* to consist of the representatives of all the programmes who are members of the Association (two representatives of the A-members, one representative of the B-members)—each programme must be presented by the man who is technically responsible for the programme.

The chairman should be elected for two years on a rotating system.

The General Assembly will be held every two years on the occasion of the Convention of the International Hospital Federation if this convention takes place in Europe.

B. *Executive Council.* composed of the Chairman of the General Assembly, the directors of two training programmes (one of A-programme, and one of B-programme) and the Executive Director of the Association.

C. *Executive Director.* appointed by the General Assembly. He is at the same time Treasurer of the Association.

D. *Honorary Auditor.* appointed by the General Assembly.

V. *Finances*

The intention is not to pay the officers but some money is required for general expenses.

(1) annual subscriptions:
Members 'A' and 'B': £20
Members 'C' : £ 5

(2) one can hope that some philanthropic persons or bodies might be willing to give some funds.

In the absence of Dr. Prims this memorandum was submitted to the Second Conference by Dr. J. Blanpain (Belgium) who particularly emphasised the following points:

(*a*) The importance of bringing continually to the notice of universities the need to attract well-trained administrators to hospitals and of the need to raise the status of hospital administrators.

(*b*) The need to develop an interchange of international lecturers between countries with hospital training programmes.

(*c*) The need to collaborate with similar training programmes in the U.S.A. where at present there are 16 schools for hospital administration attached to the principal universities.

In the ensuing discussion it was agreed that the word 'European' would need closer definition and that membership

qualifications for Groups A and B must be the subject of further discussion. Subject to these comparatively minor points the conference was strongly in favour of Dr. Prim's proposals and set up forthwith an ad hoc steering committee consisting of Mr. Mickelwright, Dr. Prims and Dr. Kohler (Switzerland) with the object of bringing an association into being, if possible within the framework of the International Hospital Federation but acting with a large degree of autonomy. It has been left to the steering committee to draft a constitution and submit it to the executive of the International Hospital Federation.

If such an international organisation can be set up, unhampered by too many rules and restrictions it should prove a most useful instrument in the training of future hospital administrators.

In any system which is established, whether national or international the point was made that there is scope for three types of training:

(1) for new entrants to administrative staff;
(2) for existing administrators, lay, medical and nursing;
(3) for trainees in specialised methods, work study, operational research, organisation and methods, etc.

EFFICIENCY METHODS

It has been said by Professor Chester that in the health world there are too much metaphysics and too few statistics. Certainly there is widespread need for much more and accurate statistical information on a variety of topics. A study of morbidity rates in different parts of the same country (medical geography) might throw light on the aetiology of a number of diseases. Why, for example, should there be such a high incidence of cancer of the stomach in most parts of Wales?[13] We know little of relapse-rates. Some rather depressing studies of relapse-rates in industrial areas of Scotland have been published[14,15] which tend to confirm that in the absence of adequate social and environmental services such hospital treatment can be no more than temporarily palliative and largely a waste of money. Our information on the need as distinct from the

demand for hospital beds is scanty. Although from such studies as those to which reference already has been made a general estimate can be made of beds per 1,000 population, this figure must needs have wide local variations depending on housing, age-distribution of a population and availability of effective social services among many other factors.

It has been said that the level of management in a hospital is low as compared with the best in industry especially in those border areas where several disciplines overlap and where medical, nursing and administrative staff all have a part to play. Here one refers to functions such as meal service, records, floor cleaning and disposal of waste. Management, in fact, has not kept pace with development and efforts are now being made in most countries to make good the leeway. Much job analysis on these and other lines is being carried out in some of the Western European countries and the need is being appreciated for greater use to be made of management services and techniques in work study, organisation and methods, operational research and data processing. In Finland, Great Britain and doubtless elsewhere data processing machines are being used to serve groups of hospitals. Increasing mechanisation or automation is being introduced into the accounting, costing, statistics and supplies services.

One of the administrative headaches in a hospital is caused by the bottle-necks which obstruct the orderly flow of patients through the wards and departments. One of these is the operating theatre suites which in many hospitals of most countries are deficient in number. Today many more conditions are amenable to surgery than formerly was the case. Certain modern surgical operations are lengthy and occupy much theatre time and the modern practice of early ambulation and shorter periods of hospitalisation means a greater passage of patients through the theatres. In many hospitals the saturation point in respect of theatre time has been reached; indeed time is no longer available for adequate theatre cleaning. The use of diagnostic procedures in laboratories and x-ray departments has greatly increased, is still increasing and is likely to continue to do so as medical science progresses. Some of these investigations are very time-consuming. An intravenous pyelogram (a

very common procedure) can block an x-ray room for an hour and barium meals and enemata can demand the personal attention of the radiologist and some of his staff for a very considerable time. It is not only space which is so often lacking in these departments. Just as important, in fact even more important, is staff. Most staff nowadays expect to work no more than a five-day week, indeed in radiological departments the working hours of the staff are very properly limited on account of the hazards to health of radiation. But patients are inconsiderate enough to be ill for a seven-day week. In few hospitals is it possible to have diagnostic procedures carried out over the week-end save in cases of emergency, but the overhead charges on the bed occupied by the patients are going on all the time. In a survey carried out in a 1,000-bedded hospital in Finland it was found that on average no fewer than 270 patients were waiting (expensively) for something to happen—x-ray, operation, transfer to another hospital etc. Surveys of this kind are needed elsewhere and it is likely that results could be equally startling.

Technological progress in kitchens, laundries, ventilation, air-conditioning, telephones and lifts has made these departments and services in hospitals comparable to large industrial installations. They are complicated, prone to breakdowns and need for their continuing efficiency a highly skilled technical staff and ready access to spare parts. Some services may well be more cheaply and efficiently performed by commercial firms in contract to the hospital. In many places hospital laundry is sent out to contract; a few hospitals have data processing by computer carried out in this way and central sterilising (C.S.S.D.) unless it can serve a hospital group of four to five thousand beds is said to be more economically done by commercial firms. More study is needed on this point. Another service which is as yet only in the experimental stage so far as hospitals are concerned is the feeding of patients and staff by pre-cooked quick frozen meals. If the leading air-lines can serve appetising hot meals in any part of the world from food prepared in this way, its extension to hospital feeding, with the abolition of hospital kitchens and most of their staff, cannot be ruled out as a desirable possibility in the future.

In giving consideration to these and other efficiency methods there is one danger which must ever be kept in mind: that is the danger of permitting 'efficiency' to become an end in itself. One has gone into hospitals in Britain and in countries abroad and has sensed an atmosphere of stark, cold efficiency with everything in its place and the patients passing, as it were, along a well-designed and carefully controlled conveyor-belt. This can happen—it has happened—and an overweening preoccupation with efficiency for its own sake at the top can permeate the whole staff to the great detriment to its morale and to the welfare of its patients. On visiting such a hospital one quickly gets the impression 'I should hate to be ill here'.

A hospital is not a business concern. Its profits lie in the recovery and the comfort, physical, mental and spiritual of its patients. Though it strives for efficiency at minimum cost its primary object is to give help to the sick. The running of it entails much more than technical aptitude and knowledge of administrative methods. There is a sentence in the paper of Dr. Tornar of Austria which deserves to be printed in letters of gold and placed upon the desk of every hospital administrator, lay and medical: 'A PATIENT DOES NOT COME TO HOSPITAL TO BE ADMINISTERED.'

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PART II

PAPERS PRESENTED AT THE CONFERENCE

AUSTRIA

by

RUDOLF M. TORNAR

PROBLEMS OF THE AUSTRIAN HOSPITAL SYSTEM FROM THE POINT OF VIEW OF HOSPITAL ADMINISTRATION

Please allow me to start my paper with a brief survey of the Austrian hospital system, particularly from the point of view of the hospital administration service.

In the past two centuries, Austrian hospitals have produced many illustrious names who have made their mark on medical science and are known in specialised circles as the 'Viennese School of medicine'.

However, the organic development of the hospital system suffered severe setbacks owing to the two world wars. After the collapse of the Austro-Hungarian monarchy and the consequent period of inflation, the hospitals, which has previously managed with their own receipts and substantial endowments, without the need for large subsidies, were in desperate financial straits. Therefore the then legislative body decided upon the Hospitals Act even before the promulgation of the constitutional law. This allocated the costs of the operating deficit and the expenditure on building, converting or extending a hospital as follows: the state and the individual province in which the hospital was situated had to pay 3/8ths each and the legal entity, i.e. the owner, the remaining 2/8ths. (Austria, as you know, is a federal-type state with 9 federal provinces, the federal capital of Vienna forming a province of its own.)

During the period between the wars, with the political confusion and desperate economic position then prevailing, only very limited improvements could be made.

However, the effect of the annexation and the second world war was catastrophic, not only because of the compulsory obstruction of all progress, but also because of the isolation, the after-effects of the war and the destruction it has caused, and finally because of the 10-year period of occupation. And not least because through the intervention of National Socialist

legislation the above-mentioned not unfavourable basic financial structure for the payment of costs was abolished.

According to the existing constitution, the State is responsible only for laying down the rudiments of legislation regarding hospitals and for the sanitary inspection of hospitals. This is looked after by the 'Volksgesundheitsamt' (National Health Office) (Director Dr. Karl Schindl, departmental head and university lecturer), within the federal Ministry for Social Administration, which is also in charge of relations with the World Health Organization (WHO) and the Council of Europe. This office also publishes an annual report on public health in Austria in conjunction with the Austrian Central Office for Statistics. The report contains details of movements of patients and categories of illness (broken down according to the 1960 Austrian system, which facilitates international comparisons), arranged according to provinces and paying special attention to infectious diseases; also a survey of hospitals divided into general hospitals and special hospitals, and the proportion of beds to the population, then the breakdown of patients and days of treatment into the individual medical specialities; finally a description of medical professions, doctors (divided into specialists, general practitioners and hospital doctors), nursing staff and midwives, and natural population trends including statistics on the causes of death according to the 1955 International List of Causes of Death, particularly infant mortality and its causes, but also giving special data such as deaths from cancer of the various organs, deaths by age and diseases of the heart. Finally, the report gives an international survey based on the 'Demographic Yearbook—United Nations'.

I am giving these details because I know that the last Congress paid particular attention to the co-ordination of statistical data.

Austria has about 75,000 beds for a population of 7 million. The hospitals are run by the provinces or the municipalities, and to a lesser extent by denominational organisations. Private establishments are of little consequence. It is interesting that when the national standard of living was consolidated after the end of the war, and the occupation forces had withdrawn,

Austrian hospitals were again faced with financial collapse, so that the National Council as the legislative body was again compelled to intervene by passing a new Hospitals Act, leaving the responsibility for implementation and administration to the provinces. However, the State could not thus disclaim responsibility concerning the importance of hospitals to the national health and so it undertook to contribute a percentage (18·75%) of the operating loss. However, this percentage was subsequently seen to be too low, as in particular those municipalities which run hospitals are severely penalised since in many cases the burden far exceeds their financial capacity. In addition, the majority of patients do not come from the place where the hospital is situated, but from the surrounding area, which is often very extensive. This has the effect of restricting progress in the medical and economic fields in the hospital system.

Therefore I should like to say that the most important problem for the Austrian hospital system is *the guaranteeing of the necessary costs for the development of a hospital system under modern management.*

The following justification may be given for this: as stated above, the State's contribution is definitely too low. The Austrian national insurance scheme, which insures the majority of the Austrian people by law against sickness, amongst other things, under the 'General National Insurance Act', does not pay rates which cover the cost of hospital treatment. It pays the hospitals a fixed, and sometimes very variable, percentage of its receipts, half of which come from employers and half from employees, as so-called 'compensation for hospital fees'. The amount of these contributions is settled by agreements under private law between the legal entity and the insurance companies.

As unfortunately most of the public hospitals in Austria determine their costs according to the public finance and administration accounting system, only in very few cases can it be said how much one day of treatment would cost according to business methods of charging to accounts. Therefore, no ratio can be established between national insurance payments and actual expenditure. The deficit, less the federal contribution of

18·75%, is borne by the province alone, where it maintains the hospital. However, in the case of a municipal hospital, the owner has to bear about 1/3 of the loss himself, and the remainder is contributed by the province. This has been the position since the new Hospitals Act was passed in 1957.

In Austria there is a special category of hospitals, industrial accident hospitals. These are run by the 'General Accident Insurance' whose receipts consist of a compulsory supplement of about 1%, calculated on the employer's national insurance contribution only. These hospitals therefore have an assured financial backing and not only in Austria are amongst the most modern hospital installations, although, as is clear from their title they are mainly devoted to the treatment of those injured at work.

This is a confirmation of my previous statement that the necessary funds—as in the case of the above-mentioned special hospitals—must be guaranteed without regard for budgetary considerations.

Recently I suggested in the Austrian Hospitals Journal that a 5% tax supplement might be levied on alcoholic drinks (which have an annual turnover of 8,000 million shillings or £120 million sterling) and this amount used exclusively for building new or modernising existing hospitals.

A very exact determination of costs according to business principles and a standard dexnition of cost categories (e.g. costs of staff, care of patients, expenditure on drugs), thus making it possible *to establish valid inter-hospital comparisons*, appear to us of particular importance in this connection.

In Austria an association for the maintainers of hospitals has been set up and provides for a loose form of co-operation between all establishments with the aim of achieving co-ordination in economic matters, particularly regarding the wage and salary demands for the various categories of staff, and also working hours. This association is also responsible for statistical surveys in the economic field, which for organisational reasons cannot be done by the National Health Office.

In my opinion it is extremely important to ensure the *smooth collaboration* of all *categories of staff* working in hospitals, as only in this way can *optimum success* be achieved from the medical, nursing and economic viewpoints. A prerequisite for this is the *necessary understanding* for the occupation of the individual with correct evaluation (not over or underestimated) of the work of the others.

It appears to me that there is much ground to be made up here, since hospitals, which only a few years ago were still fairly simple in structure, have now become or are becoming highly technical and mechanised industrial installations divided into specialised units. Moreover, the increasing thoroughness from the medical and nursing viewpoint in the treatment and care of patients necessitates an ever greater number of technically trained specialist staff.

That covers the most important problems.

Now some proposals for solving them:

1. The provision of the funds necessary for operation, and in particular for the building of new hospitals, the modernisation of existing installations in so far as this is economically tenable and where they should not preferably be replaced by new buildings for reasons of organisation and operation, can in my opinion only be ensured by means of clear legal measures, possibly by new tax receipts. As broad a basis as possible is advisable for this, i.e. the inclusion of all authorities responsible for public health, as after all the hospitals are there for everyone.

2. As in a commercial firm, the constant increase in operating costs can only be absorbed by rationalisation, and, in so far as this is possible in the medical and nursing field, by automation. Principal administrative officers in Austrian hospitals meet in working parties organised on a provincial basis, which deal with these special problems. Further educational courses also cover these problems with the help of experts. We know from one of our colleagues who is at present in America that the establishment of individual model hospitals which are extensively automated has made it possible to effect a saving of half

the costs and half the staff. This could also provide a remedy for the shortage of staff.

3. The somewhat disrespectful answer to the question of amortisation must be that hospitals are also engaged in production, and production of the highest form, the production of the healing of man and his return to the working process. It is not difficult to prove that from the point of view of the economy these investments are profitable.

4. Administrative officers must realise that the patient does not come to hospital to be administered but to be treated and nursed. It is therefore the administration's duty to leave the hands and heads of the senior doctors free for their extensive duties. Smooth co-operation between these factors is therefore a prerequisite for the trouble-free functioning of any hospital organisation.

5. All these measures necessitate intensive training for management staff. Therefore, not only further education, but also the selection and training of administrative officers is of particular importance. Unfortunately in our country, as in other small countries, there is a shortage of suitable educational establishments. We are making every effort to ensure the inclusion of special educational facilities for responsible executives dealing with economic, administrative and technical matters in hospitals at the Social Science College now in its early stages at Linz on the Danube. It would be desirable to draw up an outline for such training in the course of this conference, if one is not already available.

6. Economic thinking must be inculcated in other responsible members of staff too, such as senior doctors and matrons. In this way the whole staff can be decisively influenced on this point.

7. Research, particularly work studies for all categories of employees and then for working methods, should be carried out by authorities specially appointed for this purpose.

8. Standardisation, not only as regards equipment, but also in methods of charging to account, should be considered.

9. It is not a matter of establishing individual giant hospitals, but also of modernising smaller establishments; but to avoid

unsuccessful investments these should only be assigned definite duties.

10. The notorious shortage of beds could partly be eliminated by the possibility of preliminary examination and post-treatment in out-patient departments, without thereby restricting the activities of the general practitioners. A reduction in costs could also be achieved by this means.

I come from a 900-bed hospital near Vienna. You should not expect any highly scientific knowledge from me. My suggestions come from 18 years practical experience starting from scratch after the chaotic ending to the war up to the present day of reconstruction to an almost clinical establishment with every special department.

We are attempting to secure a place in the sun for the hospitals which stood or are still standing in the shadow of economic conjuncture, for the benefit of our patients. Whatever form the public health system may take in the future, the main pillar will and can only be the hospital.

BELGIUM

by

PROFESSOR S. HALTER, M.D.

QUESTION NO. 1

What are the most important problems today with regard to the development of hospital management?

1. *Historical development*

The difference between old and new concepts in hospital management is important in that it is becoming difficult to draw a parallel and to define the differences which can be established.

It is therefore by studying the causes which have changed the whole aspect of hospital management that we shall find the necessary information enabling us to define the importance of the problems which remain to be solved.

All of us are aware that until the beginning of this century the hospital was more of an institution of social segregation and public charity than a real medical undertaking.

We do not need to be reminded that it was only in the early years of this century that medicine took on a more scientific nature, when it became possible to study, define and codify the basic knowledge in this field.

It was the revolutionary discoveries of Laennec in medicine and of great surgeons such as Lister in the field of antiseptics and asepsis, before the discovery of anaesthetics, which led to the advance in surgical techniques.

Progress in physics, chemistry and biology greatly helped to make medicine of an increasingly complex scientific nature.

At the same time, with the evolution of social ideas and social classes coupled with the setting-up of social security, the whole population was starting to benefit from medical services. Before this social evolution, hospital administration was mainly in the hands of charitable organisations, both private and public, and

the principles of this administration were based on the concept of 'the good father figure'. No particular qualifications were required of those in charge; they were merely expected not to make any mistakes in addition and to take care in recording all expenses in order to fit these into a budget which was fairly arbitrarily fixed each year.

Hospital administrators were essentially well-intentioned, self-taught people.

Public hospitals in Belgium in the 19th century were administered according to rules similar to those applied to public services; the range of staff was extremely limited, recruitment and promotion were badly and inadequately planned, and budgeting was the essential concept in administration.

No justification was required for expenses as this was provided for in the budget, and breaking down costs, as well as the establishment of a daily maintenance cost, was unknown. This is easily explained by the fact that the great majority of hospital patients were made up of the needy who were cared for by the public authorities.

The few private hospitals in existence in the 19th century were generally not very large and were used mainly by certain doctors and surgeons to carry out their private practices.

Improvisation was the rule, no programmes were drawn up and reasoned forecasting was found only in exceptional cases.

2. *Present situation*

There has been a radical change in hospital clientèle. The progress in medical techniques has made hospitalisation a necessity for all classes of society; it has become inseparable from a great number of medical activities, and expenditure, has increased beyond measure. Expenses nowadays are established for patients amongst whom the very poor have become an exception, since hospitals are above all full of patients taking advantage of social security facilities and those whose income is such that they can be asked to pay, either the actual costs, or at least a substantial contribution to hospitalisation expenses.

It is not surprising, therefore, to find that it is increasingly important to plan administration in order to make it more efficient and economical.

The establishment of a daily maintenance cost has now become a fundamental necessity and the study of the various factors constitutes a science which can no longer be applied without preliminary study.

Rules of management today have become very similar both for public and private hospitals.

(*a*) The appointment of officers and staff is no longer left to improvisation but is the subject of careful study and sometimes calls for the intervention of organisations specialised in business management. The grouping of staff into various categories: medical, nursing, administrative, technical etc., is now more clearly defined, and the qualifications required must be studied and specified beforehand.

(*b*) There is a growing tendency for staff to be recruited through competitions and examinations. Although this facilitates the choice, a constantly increasing need aggravates the shortage found in most sectors.

(*c*) Staff—whether medical, nursing or otherwise, are now often closely linked with the hospital by means of temporary or permanent employment contracts. Discussions are still going on to decide the best way of drawing up these agreements. Besides the medical staff, an independent administrative body is now more frequently found in hospitals.

(*d*) Public relations are gaining importance, since most hospitals employ staff for this purpose. Public relations officers generally make one of the greatest contributions towards the humanisation of relationships between the hospital and the population it serves.

(*e*) As far as housekeeping is concerned, organisation of purchases and checking of supplies has become quite scientific and the planning and operation of kitchens, laundry, heating and the different technical services call for specialised ideas. In order to ensure that both administrative and medical services

operate satisfactorily, it is important to keep a close check on supplies, which can no longer be improvised.

(*f*) Hospital accounting methods have been completely revised. Fixed plans have been established which involve not only budgeting—still useful in certain cases—but analytical accounting where each item can be studied with a view to increasing efficiency and economy. Forecasting, checking expenditure during the financial year, and balancing accounts are, in these days, a vital problem for the hospital which must always be in a position to know its current reserves and possibilities. The establishment of the daily maintenance cost and of the actual cost of services to the sick involves research by the management of all hospitals, since social security organisations favour an easy solution whereby both costs would be brought to the same level, whilst the diversity of conditions under which medical care is given demands, on the contrary, the greatest flexibility in assessing the actual cost.

(*g*) Responsibilities of the management have been defined on several occasions, and in 1961 a ruling put these into the hands of a management committee. Until now, in Belgium at least, no one has appreciated the value of assigning this task to a responsible director empowered to make decisions. The power of decision in all fields is still in the hands of management committees and requirements on the medical side can often not be fulfilled in the face of decisions provoked by the limitation of funds or the inability to make ends meet.

(*h*) As regards the daily maintenance cost, there is an increasing tendency to distinguish between the actual cost which is clearly evident from the financial operations, and a cost which all too frequently is arbitrarily fixed for various reasons, sometimes connected with competition or policy matters.

These remarks, which until only a few years ago could only be applied to public hospitals, are now valid for all hospitals in general, and even though some private establishments may still envisage administration on the basis of the 'father figure' they are evolving rapidly towards scientifically planned management, the only means of justifying and defending the existence of these hospitals.

QUESTION NO. 2

Present trend: How are these problems dealt with and what type of scientific research is developing in Western Europe?

We can say that at present specialised public opinion in Belgium has become very conscious of these problems.

Rules for management of accounts have been drawn up (Royal Order of February 21st 1961)

—The Hospitals Acts of December 23rd 1963 put public and private hospitals into the same category and prescribed a system for the organisation of accounts and architectural and functional replanning aimed at establishing 'standard' daily hospitalisation costs around which the actual costs can fluctuate.

—The Belgian Government proposed to make up hospital deficits by granting a fairly large subsidy.

However, the Hospitals Act neglected to draw up rules for hospital management—this must therefore be the responsibility of those in charge of administration in each establishment.

We might therefore say that this Act deals essentially with technical and accounts matters and that it must undoubtedly be supplemented in the near future by regulations establishing the co-existence of hospitals on a regional or national level, and also providing, within each establishment, for the different administrative and technical problems which are always arising and which have a considerable influence on the finality of these institutions.

The most important problems at the present time are undoubtedly:

1. The need for architectural and functional replanning of hospitals, even those recently built, with a view to greater efficiency and particularly with a view to increasing the average time spent by each patient in hospital—especially low in Belgium.

2. The reorganisation of accounts and the establishment of a uniform national accounting system may in future result in

the reimbursement of actual expenses and thus contribute to the progress of hospitals instead of a slowing down of their development.

3. Administrative reorganisation must of necessity come under consideration as it is unthinkable that hospital staff, medical or otherwise, have no clearly defined status whereby not only the immediate possibilities, but also the possibilities of expansion, are known.

4. The replanning of technical departments (kitchen equipment, laundry, heating, purchasing department, maintenance, etc.) is likewise a necessity conditioned by the struggle, developing on a strictly economic basis, between hospitals of different sizes, specialisations and outlook: policy, management, religious or even technical.

I should like to remind you that the universities of Brussels and Louvain have for several years now been aware of these problems and with the help of the Regional Office of the World Health Organisation, have organised courses in hospital planning and management. By creating a new generation of technicians and scientists, this will most certainly contribute to the inevitable progress of hospital planning and management in this country.

DENMARK

by

C. TOFTEMARK, M.D.

THE DUTIES AND FUNCTIONS OF HOSPITALS IN THE NEAR FUTURE

The development of medical science is resulting in an increasing and self-accelerating specialisation amongst the members of the medical profession.

As medical work becomes more and more specialised, it is natural for a larger part of the work to be transferred to the public hospital service. Specialisation has placed and will continue to place great demands upon the hospitals.

The advantages of specialisation within the medical profession are obvious and considerable, both for the individual and for the community. It would be foolish to attempt to put a brake upon this natural development.

Meanwhile the dangers of this growth must not be overlooked. The greatest are that it can be the cause of excess treatment, likewise it is difficult to organise the health services so the right patients, i.e., those in need of special treatment always are referred to treatment from the right doctors, i.e. specialists.

In order to bring a halt to these dangers and to avoid discrimination in treatment of groups of persons or districts, it is necessary to aim at establishing a practical function for the health service which will deal with the following:

(1) Choice of patients who can be the subject of treatment

(2) Choice of patients who are found to be the subject of examination or treatment by our specialised hospital service and finally

(3) Allocation of these patients within the scope of our multifarious hospital service.

Under our health service the first two functions are mainly the responsibility of the general practitioners, although recently, to an increasing degree, jointly with the private practising specialists.

Experience in recent years has shown that the more specialised the hospitals are, the more necessary it is to make a primary allocation.

A qualitative allocation could be practised in different ways under varying circumstances, but as our system is primarily built up upon the general practitioner, it would not only be reasonable but also natural and necessary to place the first and decisive link in the process of allocation in the hands of the practitioner, even though this task is becoming more and more difficult. Whilst expanding our specialised hospital service it will be absolutely necessary to ensure both a qualitative and sufficient addition to the ranks of the practitioners, improve their training, and aim at establishing a widely expanded post graduate training. In this respect the value of an organised co-operation between the general practitioners and the practising specialists will be considerable.

The views expressed in this paper on the hospital service deal alone with the so-called medical/surgical hospitals. Only slight reference is made to the co-operation with and the importance of the mental hospitals, the care of handicapped persons, rehabilitation or assistance to the chronically ill or aged. It is nevertheless clear that the problems found in these fields are intimately associated with the hospital services, and the interplay between the various functions of the public health service is of vital importance to the whole scheme.

Differentiated forms of treatment are to be found in the various departments of each hospital, also in the various types of hospitals within each geographical region and finally, nationally through special departments.

Co-operation between the various groups is traditionally difficult partly due to the recognised autonomy which has been built up by independent individual chief doctors of the individual departments within a hospital, and also due to a more or less artificial barrier between hospitals.

Contributory cases of no mean degree are the administrative and economic problems brought about by the county and borough limits. If the specialised departments situated in each

province—which are growing fast both in importance and extent—are to operate in a satisfactory manner, it is obvious that the existing rules must be rationalised and simplified.

The hospitals have a triple function: the treatment itself, the training of medical staff and scientific research in connection with a continuous clinical control of results and methods. All three are necessary to maintain a proper standard and to ensure further progress. The following describes the first of these problems.

The natural function of the hospitals, above other forms of medical work, is based upon the following factors:

(1) Specialised, qualified and experienced staff.

(2) Instrumental equipment with appropriate facilities.

(3) Possibility for continuous observation.

(4) Co-operation on the spot with special facilities common to all.

(5) Co-operation on the spot with clinical facilities.

(6) Multifarious co-operative rehabilitation.

The patients the hospitals admit can be divided into several main groups:

(*a*) Emergency cases, i.e., every type of case of accident, surgical patients requiring immediate operation, medical patients requiring attention of a special, difficult or observative kind.

(*b*) Non-emergency cases, i.e., patients admitted for observation, diagnosis or treatment from a waiting list or following upon an examination carried out in the hospital's out-patients department.

(*c*) Chronically ill patients to be controlled or re-admitted.

(*d*) Public institution patients admitted for observation (disablement insurance court, accident insurance council, child welfare authority, etc.)

(*e*) Patients permanently ill or incapable, admitted for treatment as a temporary measure until final accommodation in an institution.

It is possible within the various groups of patients to distinguish between the ordinary and the complicated cases. 'Ordinary cases' do not mean unimportant or slightly or less dangerous illnesses but conditions where, according to experience, diagnosis and treatment are on more or less firm lines, not requiring skilled experience, instrumentation or joint action above the normal.

Complicated cases exist where technical or other conditions demand extended joint action with other specialities. Included in this group are patients who because of their limited numbers, ought to be placed together at individual observation centres and those in respect of which new principles of treatment are to be tested or research problems solved.

A dividing-up of ordinary and complicated cases can never be schematic or constant over fairly long periods. In part the panorama of the illness and the possibilities of treatment vary in no small degree, whilst a closer examination and special interest in a particular illness can often cause a movement relatively quickly, from the complicated to the ordinary group.

The ordinary group, i.e., those patients who can be treated adequately by a specialist without extraordinary facilities, form the major part of the most of the special illnesses, even though the proportionate part can vary from illness to illness.

It must be understood that it would be wrong and rigid to establish a special plan for dividing the illnesses between the various types of hospitals, but it is necessary to build up this division on the basis of a proper understanding of the problems to be solved by extended, continuous and close co-operation between doctors on the same level of importance and prestige within the multifarious hospital service. The effective function of this co-operation must be strengthened in education and understanding of these principles during the period of training as specialists.

It is argued by some in many parts of the world that in order to ensure such co-operation and advantage of the possibilities of specialisation, it will be necessary to go over to using large

and in some cases very large highly specialised hospitals, and it is prophesied that the days of the small and medium sized hospitals are numbered.

It is apparently a disadvantage to have mammoth hospitals with numerous small cubes, unless proper consideration is given to the placing of the 'lines of communication'.

As far as Denmark is concerned tradition, economics and the limited possibilities of investment all contribute to our having to calculate with the necessity of maintaining a large part of our hospital units in the foreseeable future. It will therefore be both wise and practical to aim at a better and more close co-operation between the various types of hospitals and departments, whilst ensuring expansion of such types in accordance with the function technically most appropriate to future development.

There are also problems surrounding co-operation within the bounds of each hospital, and these have three causes: the synthesis brought about by specialisation, the increasing difficulty in securing qualitative staff, both medical and non-medical, for each section and the necessity of a more rational solution to accident and emergency preparedness.

For these reasons we are bound to create a hospital function different from that one has been used to in the past. Since changes in tradition always take time and as solutions can be found by different means, it is essential to be careful not to force development into limited channels. However, everything points to an expansion towards a function which loosely can be described as follows:

Of the total number of beds in a general hospital about 10% are contained in a special unit lying next to the treatment sections and special facilities common to all, and equipped with all technical facilities. To this section are admitted (1) post-operative patients in the critical period or the period necessary for observation, (2) those seriously ill who need special treatment or observation independent of the special category in which the patient falls and (3) patients seriously ill, due for and prior to transfer to special departments as laid down in general rules. This unit is common to all clinical departments, including

the anaesthesiological department. The unit is administered by one of the chief physicians (consultants), who is appointed, perhaps for a definite number of years. Co-operation is on 'consultant level', since each special case is placed for treatment under the appropriate specialist.

The remaining parts of the bed units are divided between the clinical departments as the demand may be, but operating particularly elastically within the limits available. Both the equipment and the qualified staff here can be at a reduced scale.

Non-emergency cases are admitted to the special department contained in the larger hospital units perhaps through a central distribution office, otherwise as laid down in the recommendations adopted by the combined consultant council.

The distribution of patients within the surgical block will hardly raise difficult problems, but a large number of those coming within the medical block will be difficult to allocate in advance. It is therefore possible that a part of the patients allocated to the medical block will be admitted in the first instance to the internal medical section for examination, then classified by the consultants joint committee and finally moved to the appropriate section. The reason for this is partly due to the fact that the medical consultant receives a great variety of cases and often carries out a many-sided co-ordinating function incorporating an extensive use of consultative assistance from other special subjects and at times appears as a representative of theoretical medicine. Furthermore many special departments within the general hospitals, will hardly be in a position to recruit younger doctors in sufficient numbers in the future and must in consequence be serviced largely by medical assistants with unlimited tenure.

EIRE

by

C. Ó NUALLÁIN

In the changing context of hospital administration there are many problems for the administrator. Some are problems for the administrator at the centre—in the ministry or department with overall responsibility for the hospital service. Some are problems for the administrator at regional or local or hospital level. Some are problems equally for lay, medical and nursing administrators, and some are peculiar to one or other field of hospital administration.

Among the important problems one may reckon:

I. *Size of Hospital and Administrative Area*

—the determination of the optimum size of hospital unit.

—the trend towards the formation of larger administrative areas and units for the hospital service.

—the trend towards grouping or federation of voluntary/teaching hospitals for some or all purposes.

II. *Management Services*

—the increasing introduction of mechanisation or automation in accounting, costing, statistical, financial, supplies, etc. work.

—the need for greater use of management services and techniques, such as work study, O. & M., operations research, network analysis, budgetary control, data processing, etc.

III. *Hospital Needs and Planning*

—the determination of the number of hospital beds needed to provide adequate services to different communities.

—long-term planning for provision of these beds, and for construction of hospitals.

IV. *Staff Training*

—the need for training for administrative and other staffs.

I. SIZE OF HOSPITAL AND ADMINISTRATIVE AREA

(i) *Optimum size of hospital unit*

There has been a noticeable trend from the smaller towards the larger hospital in most countries over a number of years.

Within the last few decades there have been rapid advances in the sphere of medicine. These advances have been due to the application of scientific discoveries to medicine, to the availability of new drugs and to the development and improvement of existing skills and techniques. These developments have, in turn, led to a great increase in specialisation, in the division of medical labour, and in the proliferation at an accelerating pace of more and more technical and para-medical instruments of diagnosis and therapy.

Inevitably these advances have led to a great increase in costs. The small hospital, unless well endowed by public or private funds, can no longer hope to provide a service for patients other than those requiring the more routine and uncomplicated forms of medical and surgical attention.

Parallel with these developments there has been a trend towards the greater interdependence of various branches of medicine, and a growing awareness of the need to bring together a wide range of facilities required for diagnosis and treatment. It is now generally accepted that forms of institutional care formerly provided only in special hospitals might more effectively be made available in large general hospitals. For instance, the concept of a separate mental hospital, except for a small minority of long stay patients, is no longer regarded as essential, or indeed desirable, by progressive public health experts. The contemporary attitude is that mental illness should be treated in a short stay unit associated with a general hospital. Cancer and obstetric patients as well as those suffering from infectious diseases can, it is considered, be also treated with advantage in units forming part of large general hospitals. In consequence, the future tendency

will be against providing separate hospitals dealing specifically with these categories of patients.

The increasing cost of modern medicine and the growing dependence on each other of different specialties create, therefore, a situation where the most desirable form of hospital is a large general institution bringing within its ambit the various conditions of human illness.

The Hospital Plan for England and Wales, for example, envisages that the British hospital service of the future will in the main be provided from 'District Hospitals', large institutions of from 600 to 800 beds serving a population of from 100,000 to 150,000. In countries such as Ireland, with a smaller and more scattered population, the scale of these hospitals would, of course, have to be much smaller.

This trend towards the larger centralised hospital, then, has arisen out of the pressures of cost, and the growing inter-dependence of the different branches of medicine. Some recent studies, however, have suggested that there may be factors affecting optimum size of hospital unit from the point of view of considerations other than those of administrative and technical efficiency and economy. There is a number of inter-acting factors which affect patient care and recovery and staff morale. The size of the hospital, the communications system within it, and the attitudes of hospital administrators and supervisors have been shown to affect staff morale and turnover. Patient care and recovery are in turn affected by staff morale.

It is, therefore, at least possible that the size of hospital which would be most easy and economic to run efficiently would not be the one most conducive to highest staff morale and best patient care and recovery. Further research on this question is needed, and would be most valuable.

(ii) *Larger administrative units*

The trend towards the formation of larger administrative units for the hospital service is evidenced in many countries. In Britain this was seen in the formation of regional hospital boards and hospital management committees responsible for groups of hospitals. It is also seen in Ireland in the formation of

health authorities which, in the case of the four largest local government units, are responsible for the hospital service formerly administered by several authorities.

These larger administrative units introduce problems of organisation, co-ordination, control and communications between various bodies, and within these bodies. These are problems for the administrators.

(iii) *Grouping or Federation*

A similar trend has developed in some countries for the grouping or federation of hospitals not embraced by national or regional schemes. An example of this in Britain is afforded by the London teaching hospitals in their co-operative arrangement for a work study service. In Ireland, seven voluntary hospitals in Dublin have federated to provide certain services in common. This trend, too, leads to the formation of larger units. While this results in possible economies because of scale of operations and shared facilities, it also produces certain administrative problems in organising and providing these services and facilities.

Most of the problems created by the formation of larger administration units, and by grouping or federation, demand the attention of competent, well-educated and trained administrators. In other words, to gain the full advantages from rationalisation of authorities and combination and increase in scope or size it is all the more necessary to produce better trained and educated administrators.

II. MANAGEMENT SERVICES

(i) *Mechanisation and Automation*

With the increase in size of hospital units, and the trend towards larger authorities, there has been an accompanying development in the use of machines in financial, accounting and statistical work. This trend towards greater mechanisation and automation has emphasised the need for staff with special technical competence and skills to operate the machines. Management and administration are becoming more and more dependent on technical knowledge in this field. It is not possible

—or perhaps even desirable—that senior administrators should become conversant with the methods of operation of the various machines. They must depend on machine-operators, programmers and systems analysts, to provide and interpret facts and figures through the operation of these machines. We may, therefore, see an increasing replacement of clerical workers by semi-technician, or technical grades, and even of some executive or administrative workers by technocrats.

Problems of recruitment and training of the requisite technical staff, and of control of procedures, and appreciation of these new techniques and machines, are and will continue to be created by these developments. These problems must be solved by the senior administrators if administrative efficiency and economy are consistently to be achieved.

(ii) *Other Management Services*

Again, this same trend towards larger units, and the ever-increasing volume of activity and expenditure of hospitals and hospital authorities demand that the senior administrators avail themselves of all possible aids to better administration and management. Diversification of activities, specialisation, innovation and change are increasing throughout the entire field of hospital administration. It is becoming increasingly more difficult for the individual administrator to deal effectively with all the complex problems thrown up by this evolving pattern of activity. He will, accordingly, have to rely more and more on such management services and techniques, as work study and organisation and methods, operations research, network analysis, budgetary control and costing, and data processing systems. These services and techniques have proved their worth in industry and in many branches of the public services. They have only been recognised and partially used in the hospital field in recent years. They must inevitably be availed of to an increasing extent in the years ahead.

This raises the problem of how best to organise and provide these services. Here we are first confronted by the existing organisational framework of the hospital service, and by the size of individual units. In Britain, for example, the regional organisation of the service has tended to influence the way in

which the various management services have been introduced and employed. Take the case of work study. The regions have been authorised to set up work study units which have been assigned studies in groups of hospitals and/or individual hospitals throughout the region. Control of the unit has been given to the regional authority, while the unit provides a service to the hospitals and hospital management committees within the region.

In Ireland, work study is only now being introduced to the hospital service. A number of appreciation courses have been run by the Institute of Public Administration—with valuable help from the Hospital Administrative Staff College, London. The hospital personnel at these courses suggested that the Institute might, at least initially, organise and provide a work study service on a consultancy basis for such hospitals as might seek it. This suggestion arose because the Institute, as an independent body, was said to be more acceptable to hospitals generally than any existing authority having responsibility for the administration and financial control of the hospital service. The Institute has agreed to provide a service, as suggested, and has set up a small unit for the purpose. It is thought likely that as experience is gained the larger hospital authorities—e.g. the four health authorities, and possibly the federated hospitals in Dublin—will set up work study units themselves.

While referring to work study I should like to suggest that the scope for useful employment of work study in hospitals cannot be adequately covered without a great increase in the number of trained hospital work study staff. If we look at private enterprise, and consider the investment in work study made by the larger and more progressive industrial concerns we find a strikingly high proportion of work study staff to other employees. These industrial organisations are very much concerned with profit, and presumably only invest so much in work study because they find it contributes to this end. Although considerations other than profit enter prominently into the hospital sphere, there are many fields in which the work study techniques applied in industry can usefully be employed. Examples are stores, laundry, catering, laboratories, cleaning services, portering, medical records. Work study can also play a helpful

part in non-medical ward activities, and in particular, in hospital planning. It seems probable, then, that a much greater investment in work study in hospitals could make a significant contribution to greater efficiency and economy in these fields.

Operations research is another technique, or series of techniques, which could be of great use to hospital authorities. Its usefulness is, of course, likely to be greater for the larger authorities—those controlling groups of hospitals. I understand that there is at least one O.R. analyst working with a regional authority in Britain. I think that the central authority for health and hospital services in almost every country could profitably employ a person skilled in O.R., and that the major groups of hospitals might also usefully avail of such services. O.R. could be of considerable help in such matters as planning for a hospital construction programme, determining the best locations for hospitals from the point of view of serving different communities, and the establishment of priorities for services.

Again, in the execution of hospital building programmes, the use of P.E.R.T. or network analysis would be of great value to hospital administrators. This technique can be provided by management consultants. It is, however, relatively easy to understand and use, if staff of good calibre are given training in it. Here again, work study staff with special training should be quite capable of adding this technique to their repertoire, and using it for the benefit of the hospital.

In the field of costing much work has already been done in various countries to try to introduce systems which will enable hospitals not only to exercise control over their own expenditure, but also to make useful comparisons with the expenditure of other hospitals. Most systems tend to be rather complex, and heighten the need for the mechanical processing of figures of cost. The systems, however, are not yet sufficiently good to enable really valid and meaningful comparisons to be made as to the relative efficiency of different hospitals. A system of management indices has been suggested, and some interesting and potentially useful work has been done on it. So far, however, it is primarily of use to enable a hospital to compare its present with previous performance.

There is a relative dearth of highly trained and skilled specialists in these fields in most countries. Hospitals, will, therefore, have to consider whether they should employ consultants to provide the services they need, or train existing staff in these techniques, or recruit staff already trained. Again, these are problems for the administrators.

III. HOSPITAL NEEDS AND PLANNING

(i) There are new concepts and practices in the treatment of the patient which the hospital administrator must consider.

The association of the treatment of mental illness with general medicine has already been touched upon. The growing success of new techniques in this field, and of out-patient and follow-up services, are leading to a gradual but striking reduction in the number of persons in mental hospitals.

There are, too, new approaches towards the care of the old. Instead of bringing them together in large institutions without specialised care, the more progressive, and wealthier, public health authorities aim at providing care for them within their own community in homes in which there is less of an aura of hopelessness and isolation. This community care is intended especially for the ambulant and less infirm. Efforts are being made, too, to postpone, for many old persons, the day when their infirmities no longer make it possible for them to look after themselves. Geriatric units are being associated with general hospitals where the illnesses of old age are treated by geriatricians who can call in a wide range of consultant opinion. In consequence many can now be returned to the community adequately rehabilitated to enable them to continue as reasonably active citizens.

Another development in recent years has been the reduced and reducing period of stay in hospitals. Hospitals have now a greater turnover of patients than in former years. This, of course, reduces the cost per patient of hospital care and helps to restore the patient to society as an economic unit at an earlier date. The shorter stay in hospital has in many instances been

due to the more rapid therapeutic effects of new drugs and techniques. But to some extent, it has been due also to early reactivation following surgical treatment.

All of these developments affect the need for hospitals and hospital beds. It is, however, necessary to consider both *need* and *demand*. It is not at all certain or likely that the two coincide.

Within limits, supply may create its own demand. When hospital beds are in short supply general practitioners treat patients who are not seriously in need at home; and in time traditional medical care tends to be regarded as good medical care. On the other hand, when doctors in hospitals know that beds are few, they may reduce the length of stay. When they know they are plentiful, they will perhaps increase the length of stay.

It is clear enough, however, that the need for hospital beds is a function of length of stay and admission rates. Length of stay varies considerably in different communities, and with different doctors, for the same condition. Some objective study by highly qualified medical people seems desirable if administrators are to be assured that the best practices are being followed. The medical audit, as used in the United States, may have possible advantages.

(ii) When the needs of the community for hospitals and hospital beds have been assessed and determined, it is then obviously necessary to undertake some long-term planning for the provision of these beds and the construction of hospitals. Here again there are problems for the administrators—in the central authority in the first instance, but also in regional and/or local authorities and individual hospitals.

IV. STAFF TRAINING

The need for training for administrative and other staffs in the hospital service is emphasised by the great variety and complexity of the problems which must be dealt with by them. Basically, we might say that the need for training exists in three areas: first, for new entrants to the lay administrative staffs of the hospital service; second, for existing administrators—lay,

medical, and nursing; and third, for existing or new staff whom it is proposed to employ on specialised duties, e.g. work study, O. & M., O.R.

In general terms, it seems reasonable to provide a fairly lengthy and comprehensive training for lay administrative trainees. This training should comprise periods of practical assignment to duties in hospitals and periods of academic study and instruction.

For existing administrators short appreciation courses are desirable on the subjects of the various management services. It is also probably desirable that they should attend short courses or seminars on management subjects.

Existing staff, or new entrants to the hospital service whom it is proposed to employ on duties such as work study, O. & M., O.R. etc. will need specialised training in these fields.

In Ireland we have not yet tackled the job of training for the first category mentioned. The Institute of Public Administration, however, has undertaken a programme of short courses for existing administrators—lay, medical and nursing—on the lines mentioned. The Institute has also run full-scale O. & M. training courses which staff from the hospital service have attended.

While some progress is being made generally in the field of training for hospital administrators in European countries, much still remains to be done in all but a few countries.

I have tried to indicate what, in my view, are some of the important problems in hospital administration today. It is not possible to state in any general way which are the most important problems. The answer to this question must vary in accordance with a number of factors, e.g. the country in question, its population, its economic and social development, and the existing state of its health and hospital services.

The question of studies and researches into the particular problem is, therefore, in the main a matter for special consideration by individual countries in the light of the circumstances obtaining in their own cases. This is not to say that many

countries cannot profit by the results of the studies and researches of others. It is this very fact that makes international contacts and exchanges such as this so potentially fruitful.

The extent and feasibility of the new trends and developments, however, must necessarily vary from country to country depending on population patterns and economic circumstances. Ireland has probably a greater proportion of persons in the dependent groups (viz. under 14 years and over 65 years) than any of the advanced countries of the world. Where dependent groups are high, the number of persons in hospitals tends to be high. Furthermore, people marry later in Ireland and there is an appreciable number of persons who have not married and probably never will. There are, in consequence, many chronic patients in our institutions who are there because they have no one to look after them at home.

In relative terms our mental hospital population is very large. The Irish Government has set up a Commission on Mental Illness to examine and make recommendations on the problems in this connection. Another commission is investigating the problem of mental handicap, and one of the matters it will report on is the question of the further institutional accommodation which will be required for mentally handicapped persons.

The Department of Health has for some time been giving its attention to the problem of improving accommodation for old persons in the county homes under the care of the various health authorities. It is in the course, too, of setting up, in co-operation with the health authorities concerned, psychiatric and geriatric units at a number of general hospitals.

It is not known in my country what studies are under way elsewhere. But the World Health Organisation has tentatively listed as a matter for an international conference in 1966 the subject of current trends in the field of hospital organisation. Whether or not the conference will be held will depend upon the views of member nations on the suggested programme of W.H.O. conferences, seminars, etc. for 1966.

FINLAND

by

PROFESSOR N. PESONEN, M.D.

In the changing context of hospital administration, what are the most important problems of to-day?

The administrative organs of a hospital must, above all, be fully cognisant of the purpose of their particular hospital. As known, the duties of different hospitals vary to a considerable extent, and as the responsibility for the best possible execution of the tasks of a hospital lies with its administration, knowledge of the purpose the hospital was designed to serve is essential.

Division into two types of hospitals

There are hospitals that serve no other purpose than that of restoring the health of the individual patients as quickly and economically as possible. Among them are many private hospitals, hospitals owned by foundations, charitable associations, congregations and other similar agencies.

In most cases however the obligations of the hospital are not limited to its intramural activities but are extended to a certain population group which the hospital has been established to serve and for whose medical care it is responsible. In countries where the public authorities are in charge of the organisation of medical care, the hospitals usually have been assigned to provide medical care for the population of certain regions. Those hospitals not only provide hospital care but participate also to a greater or small extent in extramural medical care. For the latter purpose the hospitals usually have attached outpatient departments. In addition to the regular in- and outpatient services there are also many other ways in which the hospital can participate in the medical care and preventive health work among the population of its region.

Thinking of the responsibilities of the administrative bodies of these two different types of hospitals, it is evident that in the first mentioned hospitals they are chiefly aimed at the main-

tenance of the internal functions of the hospital itself. It is true that even in those hospitals the direction must communicate with the medical personnel working outside the hospital and sending patients to it to keep them informed of the treatment facilities available at the hospital and its possibilities to admit new patients, so that among other things such patients as cannot be treated at the hospital are not uselessly sent to it.

The responsibilities of the direction of the latter type of hospitals are much more comprehensive, as the activities of the hospital as a whole must be so planned that it is capable of meeting the requirements of the population it is intended to serve as far as their needs of hospital care, out-patient services, domiciliary care and preventive health services are concerned.

The responsibilities of hospital administration concerned with the internal functions of the hospital

As far as the tasks related to the internal activities of the hospital are concerned hospital administrators must be considered responsible that the operation of the hospital is both medically and economically effective. In the activities of the modern hospital, the greatest difficulties are met in the operation of the different laboratory, radiological and surgical departments. With the progress of medical sciences laboratory and radiological examinations have greatly increased not only in quantity but also in quality. It has been necessary to increase the number of personnel at the departments in question and also new types of personnel have been employed such as chemists, technicians, engineers, etc. At the same time additional equipment and new instruments have become inevitable. It is naturally self-evident that all new methods and solutions facilitating and improving the operation of the hospital must be utilised so that the need of medical care can be satisfied as close to perfection as possible both medically and economically. In this connection there is also reason to refer to the very important task which the hospital direction has in synchronising the functions of the laboratory, etc. departments with the activities of the hospital as a whole.

In addition to radiological and laboratory departments also the operating rooms of surgical departments work under a high pressure. With the present shorter times of treatment, hospitals could serve an increased number of patients if the work of the operating rooms and surgical departments were properly synchronised with the operation of the hospital as a whole. As a result many hospitals have been compelled to extend their surgical departments. It is also natural that the operating capacity of the expensive hospitals must be used as effectively as possible. Therefore, the laboratory, radiological and surgical departments must be modified to synchronise with the activities of the other departments so that the operation of the hospital is not retarded because of the incapacity of a few departments to cope with the general rhythm of work. It is not right if the patients have to stay at the hospital unnecessarily long just to wait for an examination or operation.

What has been said in the foregoing concerns also the out-patient departments.

One of the most important responsibilities of hospital administration is to attach early attention to every point of friction in the operation of laboratory, radiological, surgical and out-patient departments and to take immediate measures for the removal of the cause of disturbances i.e. for rendering the functions of the whole hospital as effective and frictionless as possible.

It is not always easy, particularly in those hospitals that are owned by laymen, to procure all necessary articles of equipment, especially if they are very expensive. The owners also follow with a worried look the ever increasing costs of pharmaceutical preparations used at the hospital. It is, however, relatively easy to prove how, for instance, an increase in the costs of medicaments—this refers especially to mental hospitals —has signified an appreciably shorter duration of treatment and thus actually resulted in considerable savings. It is the duty of the hospital administration to keep the owners informed of such facts. On the other hand, the hospital administrators should also see to it that the laboratory, radiological, etc. departments are not bothered with unnecessary investigations. Because of its

delicate nature the last obligation, we must say, is not one of the easiest.

In the recent years the internal functions of the hospital have also manifested a tendency to becoming schematic. Each worker, in fact, carries out the duties as he or she is trained to do but this happens too often without sufficient attention being paid to the fellow-workers. However, medical care is no one-man job but the joint responsibility of the whole hospital staff. Thus the whole staff must take an interest in each individual patient. Co-operation is the catchword of the time, and applies also to hospital work. To see to it that the staff is made to co-operate for the realisation of the aggregate purpose of the hospital is, in fact, the responsibility of the hospital administration. Therefore, an organisational system must be created through which a good realisation of this idea of co-operation will be possible. It is clear that for attaining this aim convening of joint meetings and discussions will be inevitable. What has been said above does not concern the medical personnel exclusively but the whole hospital staff.

On the extramural responsibilities of hospital administration.

The responsibilities of hospital administration are an appreciably more extensive and difficult task at the hospitals that are assigned to serve the population of a certain region to offer total coverage of their health needs. At present the grosser neglects may also be found in this sector.

If a hospital has to provide medical care for the population of a certain region it must also know the corresponding needs of that population and also know the different facilities available for satisfying the needs in question. If the needs for medical care among a population are not known, it is impossible to satisfy them. The needs for medical care of a population again cannot be known unless radical surveys for their clarification are carried out. The needs of medical care should be clarified for both acute and chronic cases. It is also essential to know what portion of the need is for hospital care, and what portion could be satisfied by other means. All acute cases, of course, need not be treated at hospital, and as far as the care of chronic

patients is concerned, there are several different possibilities to satisfy their need of care. Some of the chronic patients are fit for treatment at home, some can be admitted to special institutions for the chronics or attended at special wards attached to old age homes. With regard to acute cases the need must be specified separately for each speciality so that the administrators know the number of the corresponding special beds required.

Where only one hospital is available for the hospital care of the population of a region, the matter is relatively simple. In most cases, however, several hospitals of different categories provide medical care for the population of the region. Of them some are equipped to meet higher requirements with regard to both technical facilities and personnel while the others are intended to treat less complicated cases. The latter hospitals are usually closer to the patient's home, and the former farther away.

Where only one authority is responsible for the activities of the different hospitals intended to serve the population of the same region, prospects of co-operation between the different hospitals are good. In such cases the task of the administration is normally easy, and therefore, such an organisational system can but be recommended. The authority responsible for the medical care of the population in a region then also acts as the intermediate body needed between the central health administration and the hospitals of the region concerned.

The matter is quite different if each of the hospitals of different categories has separate owners and independent administrative organs. Under such circumstances difficulties in making all the parties co-operate may be very great indeed. Primarily we shall have to start from it that if the population of a region has several hospitals of different kinds and categories at their disposal, those hospitals must constitute a functionally uniform entirety. This must be regarded as the primary condition for securing for the population as good medical care as possible both in the professional and economic sense. The administrative direction of the hospital must systematically strive that the possibilities of each hospital are used effectually and with

adequate efficiency. In this respect the above-mentioned requirement of co-operation is inevitable.

When changes take place in the need of medical care of the population, the situation must, of course, be continuously followed. In this respect, among other things, the expected increase of industrial and traffic accidents may be mentioned. If a new industrial establishment is erected in the sphere of influence of the hospital or a new highway happens to cross it, the result is felt immediately in the operation of the hospital. Among the patients victims of traffic accidents become more frequent and industrial injuries increase. The hospital direction must be prepared for such changes so that the hospital is not unexpectedly confronted with a situation where it is unable to satisfy the needs of medical care of the population.

In order that the administrative organs of the hospital may be able to carry out the above-mentioned tasks, and above all, to perform the surveys aimed at the clarification of the needs of hospital care among the population, a special research unit is necessary at the hospital. It should have all statistical facilities at its disposal, a data processing machine among them. Data processing machines cannot, of course, be provided for every hospital but by means of co-operation a machine could be arranged to serve several hospitals.

How are these problems being dealt with, and what specific researches are in progress in Western Europe?

In Finland a special Training and Research Centre is operating directly under the National Board of Health. The centre carries out extensive research work on the morbidity and need of medical care and public health services among the population. Some hospitals have also taken measures for the detailed clarification of the need of medical care within their respective districts by means of special research programmes.

Between the Nordic countries joint research programmes and joint training of hospital administrators are being planned.

In Finland the 'Foundation for Education in Hospital Administration' has arranged seminars and study days. The

first seminar was held at the end of 1963 and the topic was 'Compiling the Operation Plan of the Hospital'. The purpose is to continue this activity and discuss among other things the synchronisation of the work of laboratory, radiological, etc. departments with other hospital activities. It is also the intention of the Foundation to start research on some special questions connected with hospital work. One such research is already going on. The purpose is to find out what the physicians working at hospitals actually know about the organisations of the hospital system of the country in general and the administrative regulations of the particular hospital at which they are working.

FINLAND

by

ILKKA VÄÄNÄNEN, M.D.

THE BASIC PROBLEMS IN THE FIELD OF HOSPITAL ADMINISTRATION

During the last couple of decades hospital development in Finland has been vigorous and rapid, as it has in most other European countries. A more widespread social awareness has had a decisive influence on this movement. It is generally accepted nowadays that everyone has a natural right to good health and the ability to work. The state has, indeed, given particular consideration to the medical care of the nation and to preserving the people's fitness for work. The result is that a great deal of attention has been paid to the improvement of the treatment of the sick. The result of this new attitude is that, for example, the number of hospital beds in Finland has doubled since the Second World War.

A lot of capital has been invested in hospital development. Since the upkeep of hospitals also requires a lot of public money, it is understandable that recently there has been more and more public discussion as to whether the money given for the development and upkeep of hospitals has been put to the best possible use. Such a question is both natural and justified. So far it has not been possible to give any definite answer.

The authorities responsible for the development of hospitals base their policy on statistical information and personal opinions. The statistical information available, however, only shows the result of a system already operating, and says nothing about what kind of results might be expected from some other system in the same conditions. The facts on which a good hospital policy should be based are still unknown.

How to use the money devoted to hospitals in the best possible way is the basic issue of hospital policy. It includes, in fact, three great problems, each of which must be solved before

a long-term programme for a successful hospital policy can be drawn up. These problems are:

(1) How can the working of a hospital be made as efficient as possible?

(2) How can the working of the hospital system over a whole region be made as efficient as possible?

(3) How much of the people's medical treatment should be carried out in hospital and how much elsewhere?

These three basic problems cover the whole field of hospital administration. They are by no means new. What is new is that we must try to solve them now on a scientific basis. It is no longer enough that each responsible administrator should solve them in the way he sees fit.

In the last couple of decades a number of countries have gained a good deal of experience in the solving of routine problems of hospital administration, and have drawn up programmes for the training of staff to deal with these questions. As training and the actual working of hospital administration have become more vigorous and extensive, the basic problems of the field have gradually become more evident. Recent developments have made this a topical issue, and the need for finding a solution has become more urgent.

Training in hospital administration and the study of day-to-day problems must, of course, continue at full pressure. This is the only way to get enough trained personnel and to protect recruitment in this field. But in the field of hospital administration research, we can only progress if we aim at finding the answers to the basic questions which remain unsolved.

THE BASIC PROBLEMS

How can the working of a hospital be made as efficient as possible?

In order to answer this question we must be able to *measure the efficiency of a hospital.* Up to now we have not had the proper criteria at hand for evaluating such efficiency. The most natural way to study it would seem to be by calculating the expenditure per healthy patient discharged. This method requires, however, that the type and seriousness of the illness and of the condition

of the discharged patient be measured. Only then can we come to a clear net result showing how much the hospital has given to each patient.

Obviously, then, it is difficult to measure the efficiency of a hospital. We can nevertheless estimate, from the point of view of hospital administration, which factors influence most the efficiency of a hospital. These include the working potential of each section of the hospital, co-operation between the sections, and the balance between all the sections from the point of view of the whole. If the capacity of one section is inadequate, a 'bottleneck' occurs which hinders the working of the entire hospital. All the parts of a hospital are, thus, in functional correlation with one another.

How can the hospital system of a given region achieve maximum efficiency?

Our idea of the function of a hospital has undergone a great change in the last few years. A hospital is no longer thought of as a static institution which goes on operating just as it did when it was founded, and whose only job is to look after the patients who find themselves within its walls. Nowadays a hospital should be thought of as a dynamic organisation in constant interactional function with its surroundings.

This new idea of the nature of a hospital means that it is conceived as part of a larger whole, as part of the whole medical treatment system for the population of a given region. This system must be able to adapt itself constantly to changes in the needs of the population brought about by progress in medicine and changes in social conditions. Adaptability in the system can only exist when each and every part of it, each and every hospital, is able when necessary to change the type and amount of work it does so as to give the best overall result. The hospital is thus in functional correlation with all medical welfare centres operating in the same region, a relationship similar to that between the sections of a hospital, as shown above.

When a question relating to the function of a hospital is looked at in this light, we notice that the answer should include

an explanation of the kind of diseases treated in the hospital, the level of treatment and the hospital's capacity. The hospital must in these respects be well integrated into the hospital system of the region. This means that:

(1) The hospital must have research and treatment facilities in all the special fields of medicine which it should have according to the overall plan for the region, and it must not try to maintain a capacity in other special fields.

(2) The hospital must have all the research and treatment facilities demanded by the level of treatment it offers in accordance with its position in the graded hospital system, and it must not maintain equipment required for treatment at a higher level.

(3) The treatment capacity of a hospital must be sufficiently great in its own special field and at its own standard of treatment as to be well able to satisfy the population's need in those sections, and it must not try to maintain a higher capacity than this.

The last mentioned point (3) is linked essentially with the third problem.

How large a part of the people's need for medical treatment should be satisfied by means of hospital care and how large a part by open care?

It is obviously more difficult to solve this problem than either of the others. A solution, indeed, presupposes that the total need of the population for medical treatment could be measured, or at any rate estimated.

In order to measure the need for medical treatment we must analyse the morbidity of the population. The morbidity must then be understood to include all the disturbances of health requiring investigation or treatment.

The morbidity of the population depends on local conditions such as the age structure of the population, the standard of living, means of livelihood and the traffic conditions.

The need for treatment calculated on the basis of a morbidity analysis must be divided between hospital care and open care.

Well-organised open care reduces the demand for hospital places. When the work of out-patient departments and home medical care become more efficient, the need for hospital beds drops. Hospital care and open care are thus in interactional function with each other.

WAYS OF SOLVING THESE PROBLEMS

The common factor shared by the three basic problems set out above is that the quantity to be measured in each case is a function of a number of variables depending on each other. Such problems can more easily be studied by enlisting the aid of an electronic computer. In the business world these machines have already been used for several years to obtain a scientifically worked out basis for the administration and development of large firms. In the field of hospital administration, too, we should begin to exploit the possibilities opened up by an electronic computer for finding factual bases for the rationalisation of the working of hospitals and hospital systems.

Use of an electronic computer to study the efficiency of the working of a hospital

The hospital must be split up into its smallest functional units. These are the functional units formed by, for example, a nurse and the assisting nurses needed in the various wards, and corresponding units in the operational and economic departments. The working of these smaller basic units is analysed and the dependence of these functions on the functions of the other basic units is studied. The programme for the electronic computer is so planned as to find out which conditions are required to give the hospital optimum working capacity, taking into account the interaction of all the relevant factors. This means constructing a hospital simulator on which it is possible to study the advantages and disadvantages of various functional alternatives. Such simulators are already being used in business and in the service of industry.

We should note that information on the structural details of a hospital can also be put into a simulator's programme, so that questions regarding the optimum size and structure of the

whole hospital and its various departments can be studied at the same time.

The use of an electronic computer to study the efficiency of a regional hospital service

The interdependence between the working and capacity of departments representing various levels of investigations and treatment and the various fields of medicine operating in the region are studied. The computer programme is planned to show which conditions are required for optimum balance and integration between these departments, taking into account the interaction of all the relevant factors. This involves making a regional simulator, in which the variable factors are the different kinds of hospital departments, and the constants the special characteristics of the region, such as population density and communications.

The variations in equilibrium prevailing in functional networks, have recently been made the subject of mathematical research. A regional hospital system is one example of such a network. It is possible to make a theoretical model of it, the regional simulator, by making use of the results gained in mathematical network studies.

Use of an electronic computer to study the population's need for hospital beds

The overall total need of the population for hospital and open care forms the basis for this study. To measure it, a statistical sociological study must be carried out with the aid of which the average need for treatment in the various illness and accident groupings is calculated per population in various parts of the region. After this a computer programme is planned to show what conditions are required for an optimum equilibrium between hospital and open care, taking into account the interaction of all the relevant factors. This involves constructing a field simulator of medical care, in which the variable factors are the various levels of hospital and open care, and the constants the special characteristics of the region. This kind of simulator

forms a theoretical model of the functional network, as does the regional simulator.

WHAT MUST BE DONE NOW

As a result of vigorous training and research work, hospital administration at the general European level has reached the stage where the solution of the basic problems has become essential, and this is very laborious without electronic computers.

With the aid of a hospital simulator we can reach general conclusions which can be adapted to the planning and working of hospitals all over the world. In programming for a regional and field simulator, on the other hand, special local characteristics must be taken into account to such an extent that the conclusions reached cannot directly serve anywhere else but the region for which they were intended. Nevertheless, the experience gained while using these simulators, which in itself is a complicated and exacting task, can be of use anywhere.

We must note that computer programming requires such a familiarity with the field that many problems connected with the main issues, which up to now have been subject to disagreement, may be solved before the simulator is ready for use. It is also possible that a short cut to the solution, even in the main issue, may be found, in which case the simulator will be unnecessary. But the simulator will then have done its job even before it is ready for use, and this is something that we can only be pleased about.

Electronic computer programming for the study of the basic problems of hospital administration requires careful planning and a lot of preliminary research. One can only hope that the experience gained in this field will be made available to everyone both through publication and by means of talks and discussions at international congresses.

GERMAN FEDERAL REPUBLIC

by

S. EICHHORN, M.D.

The improvement of planning and organisation—an urgent problem in German hospitals

The problems arising in the hospital field are numerous and have many aspects. They relate to bed requirements, regional distribution of available beds, financing the construction and running of hospitals, the optimum organisation of hospital management and the functional planning of hospital construction. Of all these questions, the most important to-day is that of the optimum management (planning, organisation and supervision) of the hospital. But it is at the same time the most comprehensive and difficult series of problems in the modern hospital.

I. THE DEVELOPMENT OF MODERN HOSPITAL MANAGEMENT

There are three main reasons for the development of the hospital in recent decades from a simple nursing home to a highly complicated organism:

The rapid advances in medical science

Whereas in the old nursing home the care of the sick and the aged was the main preoccupation, the emphasis in the modern hospital is on the work of the doctor, on diagnosis and treatment. The advances in medical science and technology have resulted in a constant increase in the treatment possibilities available in the hospital. This development of medical science is reflected both in the increase in the number of patients and the reduction in the length of stay in hospital.

Technological progress

Nor has the advance in general technology passed the hospital by. The heating installation of a large hospital to-day is barely distinguishable from a modern power station. Kitchens and laundries resemble ordinary industrial installations. Venti-

lation, air-conditioning, telephone, staff location and call systems, lifts, etc. make the hospital, from the technical point of view, a complicated apparatus which is also prone to breakdowns.

Assimilation of hospital standards to the general standard of living

As regards both the standard of accommodation for the patients and working conditions for the staff, the old nursing home fell far short of the general standard of living of the population. Compared with a normal three- or four-roomed dwelling for a family of three or four persons, the large wards in the old hospitals housed 10, 15 or even 20 patients. The primitive furnishings of the wards were inferior by far to the normal furnishings in a family home. The position was similar for the hospital staff. The wage level was up to 50% lower than in industry. Normal working hours in industry were 48 per week, but in hospitals they worked a 60-hour week. Accommodation for the hospital staff was primitive: senior nurses slept two and three together in very small rooms.

All this has changed decisively in recent years.

Patients are now accommodated in one, two or three-bedded rooms. Only the less serious cases are still accommodated in four or six-bedded rooms. The wards are provided with modern,

Comparative figures

Service provided, staff density		1938	1963
Number of patients hospitalised per 1,000 population		85	130
Length of stay (in days)	for all hospitals	40	28
	for acute hospitals	32	20
Staff per 1,000 beds	Doctors	25	55
	Nurses	140	170
	Medico-technical	7	13
	Domestic	118	205
	Administrative	20	35
Running and building costs		1950	1963
Running costs (cost per patient per day in DM)		12 to 15	28 to 35
Space occupied in hospital (cubic metres of enclosed space per bed)		80 to 120	170 to 250
Building costs (cost per bed in DM)		8,000 to 15,000	40,000 to 80,000

comfortable furnishings. The wage level for hospital staff is similar to that in industry, and working hours have been adjusted to the general level. Staff accommodation corresponds to the ordinary standard of living: single rooms or small apartments.

These changes in hospitals in recent decades are reflected in the few figures, shown in the table at the foot of page 88.

II. THE PRESENT FORM OF HOSPITAL MANAGEMENT

Hospital management (planning, organisation and supervision) has not kept pace with this development of the hospital into a highly complicated organism. In most cases hospital management is still at the stage it reached in the old nursing home days. Then purely technical knowledge was sufficient for the accomplishment of the functions of management. In the past no one realised that the structural change in hospitals also called for a modification of the form of management and organisation in the hospital, and that the running of a hospital —such a complicated task today—now makes completely different demands on management.

Hospital management today still corresponds to the idea of specialised trades; the hospital is split up into a number of small working areas (wards, X-ray department, operating theatres, main kitchen, diet kitchen, laundry, etc.). At the head of each section is a person who manages his area in the way he thinks fit, as he has learned to do, as he has always done. There is no uniform line throughout the whole complex, there is no harmonisation between the areas. Thus for example the most simple routine work in the wards (meal service, floor cleaning, etc.) is organised differently from one ward to the next and much energy is wasted in this way. In some cases the food is ready in the kitchen by 10.30 a.m. and not served to the patients until 12 noon or even later, and the kitchen and the wards blame each other for this delay.

The most frequent answer given to the question: 'Why do you organise the work in this irrational fashion?' is: 'We have always done it like that!'

The disadvantages of this type of management for the hospital are obvious. Poor organisation within the individual areas and inadequate co-ordination between them leads to considerable friction and waste: The patients do not receive the best possible care and treatment; morale deteriorates; too great a staff is required; running costs are too high.

These defects in internal organisation are the most important and urgent problems for German hospitals today, if one disregards the question, purely a matter of policy, of 'Who should pay the costs of the hospitals?' To remedy these defects is today the most important duty of all who are concerned in the further development of hospitals.

III. REASONS FOR THE INADEQUATE PLANNING AND ORGANISATION IN HOSPITALS

Why does hospital management today not come up to the modern standard of knowledge?

This deficiency is mainly due to a confusion in the matter of taking decisions. There is a lack of co-ordination in hospital management. Only rarely is there a clear ruling on taking decisions and the co-ordination of the powers and authority of the hospital board, the medical superintendent, the matron and the lay administrator. This means that these questions are also left open on the lower level, for the senior medical staff, the assistant matrons, the kitchen supervisor, the laundry supervisor, etc. The fact that from the sociological point of view the hospital professions each form closed groups may also contribute to this. Whenever one authority only is effective and takes decisions (e.g. the surgeon during an operation or the lay administrator as regards the accounting system), there is generally also rational planning and organisation. But the specific performance of a hospital depends on close co-operation between several sections and persons. If the planning and organisation of a hospital are analysed from this point of view, it is clear that the shortcomings are predominantly in border areas where the medical, nursing and administrative staff all have a part to play. To complicate matters, neither the senior medical staff and nurses nor the administrators have been

previously trained in any way for duties connected with hospital management.

2. The second reason for the out-dated form of hospital management is that it has frequently not yet been realised that it is impossible to run a hospital on the basis of the routine and experience of a single individual. The practical experience of one person, whether doctor, matron or administrator, may have been adequate for the management and control of the nursing home, but the close-knit apparatus of a modern hospital, which is dependent on rational co-operation between all the different working areas and methods, has different requirements. In the modern hospital there is no place for the so-called practician, who insists on knowing everything from his own, naturally limited, experience, and for whom his own experience is the only yardstick for his actions. We must rely on a broad knowledge of basic principles to provide standards and guiding lines for hospital management. This knowledge of basic principles must also be built up from practical experience, but from the practical experience of a number of hospitals. In contrast to this, the so-called practical method is always based solely on the very narrow powers of observation of one individual, which are then, generally without discrimination, taken as the standard for future action.

IV. EFFORTS TO ACHIEVE MODERN HOSPITAL MANAGEMENT

What is being done to remedy this position?

1. *Development of guiding lines, standards and coefficients for the optimum organisation of hospital work.*

Systematic research and job analysis for all working areas and methods in the hospital should form the basis of the optimum organisation of work. In a number of representatively selected hospitals, job analysis, methods study and time and motion studies are being carried out for the various activities and working areas (e.g. meal service, linen supply, patient care, X-ray work). This gives a general idea of the existing types of organisation and shows the possibilities and starting points for improving and rationalising the work.

In evaluating this investigation, proposals are being drawn up for the optimum organisation of the working areas and work flow. These proposals concern the sequence of operations, the organisation of work, the employment of staff, record-keeping, technical equipment and the ground plan of the hospital (and thus the effect on hospital construction). In this way, guiding lines, standards and coefficients for a rational and practical organisation of the various working processes are made available to the hospital management.

Investigations of this kind have so far been carried out on nursing, meal service, linen supply, central bed store, central sterilising, messenger service, diagnostic X-ray and radiotherapy, hospital kitchens and hospital laundries.

2. *Improvement of the possibility of supervision by extending the accounting system*

Systematic planning and good organisation are ineffective if there are no facilities for supervising the running of the hospital. For this reason the hospital accounting system is extended to become a powerful instrument of management and control. The main aims are as follows:

(*a*) Standardisation of the accounting system. Uniform schedule of accounts, uniform methods of book-keeping.

(*b*) Systematic cost control. Recording and checking of costs in the work area, where they arise.

(*c*) The improvement and rationalisation of accounting systems. Transfer to accounting machines. Setting-up of a central accounts office, in order to utilise the possibilities of rationalisation offered by punched card systems and automatic electronic data processing.

(*d*) Standardisation of hospital statistics as a basis for inter-hospital comparisons.

(*e*) Systematic inter-hospital comparisons to obtain coefficients for the employment of staff, performance, consumption and costs.

3. One of the most urgent requirements is to set up an authority in the hospital to be completely responsible for

planning, organising and supervising all work and methods in the field of nursing, treatment and supplies. The general solution will be, from a purely organisational point of view, to attach the planning and organisation section to the administrative department. Only in large hospitals will the planning and organisation department be an independent authority. In smaller hospitals it is sufficient for a small committee to take this on as an additional duty, in which case perhaps one of the members should be primarily engaged upon these questions. There are sufficient precedents and possibilities for this.

4. *Organisation of further training for hospital staff*

Members of the hospital staff at all levels are not yet sufficiently informed about the questions and problems of modern hospital management, and are thus only incompletely prepared for their duties. Every effort is therefore being made to intensify further training for hospital staff to attain the necessary level.

Joint training for senior medical staff, matrons, and lay administrators in organisation seminars (2 *weeks*)

Here some ten hospitals are grouped together and informed about modern methods of hospital management. The seminar covers work which is of joint concern to doctors, nurses and lay administrators (e.g. food service, linen supply, central sterilising, cleaning services, central bed store, messenger services, record-keeping, organisation of duty rosters).

Further training for senior medical staff

Until now medical studies have only prepared doctors for their medical profession. They have always had to familiarise themselves in the course of practical experience with all the duties connected with the management of a medical department or a hospital. The fact that senior medical staff are not prepared for the duties connected with staff management, planning and organisation has, however, proved to be a real deficiency. In future, senior medical staff will be instructed in these subjects by means of courses and seminars.

Further training for senior nurses

The first essential for an improvement in the organisation of work as regards nursing duties is to intensify the normal training for nurses. In addition, an increasing number of ward sisters, departmental sisters and matrons are being prepared for their management duties by means of courses lasting from 6 weeks to one year. It is probable that in the future hospital boards will only employ senior nurses who have completed a further training course.

Further training for lay administrators

For lay administrators, there is a two-year seminar (4 periods, each of 6 weeks, spread over 2 years), recently extended still further, on hospital administration at Cologne University (for hospital administration candidates). For candidates with a university degree there is the possibility of practical training (two to three years) following this Cologne seminar. For lay administrators who are already working, two further training courses are held yearly (at regional level), which cover questions of principle as well as topical questions relating to hospital management.

For department heads in hospital administration there is a possibility of further training in short seminars (four weeks in two years).

ITALY

by

Dr. (iur) R. DONATI

Every organisation pursues certain ends.

No end can be attained without fulfilling certain actions aimed at achieving this end.

The carrying out of these actions involves 'administration' which consists of acts of will and acts of execution.

No objects can be achieved without economic means.

Whatever the nature of the objects of the organisation, therefore, there must always be some kind of activity designed to obtain and use rationally the economic means necessary for the attainment of these ends.

This activity consists of economic administration, i.e. the economic side of administration, or administration of the economic life of an organisation.

Economic administration is part of management as a whole, but it certainly conditions the whole since every action performed by man is conditioned by the quantity, quality and efficiency of the instruments at his disposal.

It is obvious that an efficient body is required to carry out economic administration, and such a body can only consist of men and economic means.

A body of people and economic means formed for the purpose of carrying out economic administration is what we call management.

In an organisation whose object is to make a profit, the sole aim is an economic one; economic administration can therefore be identified with the management as a whole, and the business is identified with the structure of the organisation itself.

In an organisation whose aim is to be a public utility, economic administration is only a part of the administration, and the

business concern is only a part of the structure of the organisation in question.

Even though economic administration and business concern may only be a part of the whole, they are however a very important part since they include the whole of the material side, which is visible, and management of the funds on the non-material side.

If, in the light of these ideas, we go on to analyse a public hospital, several facts are brought to mind.

According to Italian law a public hospital is an organisation whose aim is to provide medical and surgical service, including hospitalisation and consultation facilities, to citizens of all social classes, without any political, religious or any other kind of discrimination.

The hospital pursues its ends by means of decisions taken and action performed at different levels.

As far as medicine and surgery and health and hygiene are concerned, this is performed by the medical staff.

On the economic level, it comes under economic administration, called quite simply 'management'.

In the same way as all other organisations, a hospital could not achieve its ends without economic funds, which must be procured and allocated, in a rational way, and carefully audited, according to basic principles.

The formidable progress of medical science has given rise to new problems and new requirements. Nowadays vast financial backing and numerous complex instruments and equipment are required to enable the medical profession to avail itself of these new advances.

The hospital's economic administration and the organisation which must put it into effect, i.e. the business side of the hospital, have this enormous task before them: to ensure that doctors have all possible means at their disposal in relation to the limit of financial sacrifice which can be expected of the community.

To speak of the hospital as a business concern does not, as some have thought, reduce it to a mere economic factor; on the contrary, this merely emphasises the financial side of the hospital without which the medical work could not be carried out.

Hospital economy is the ground in which the tree of medicine is planted and thrives. The tree bears fruit, but the wealth of production depends on the quality of the soil and how it is worked.

If then within the hospital we find a real business concern, it is also obvious that in such we have all the economic and technical problems of a business concern and the need for an adequate management and development policy.

The fact that the hospital is a business concern does not detract from the merits of the medical staff working there; likewise, a well-known tenor singing in the Scala is none the less a great tenor because the Scala is a theatrical enterprise.

We can combine all these ideas by stating that the hospital is both a great and complex medical undertaking and a great and complex economic concern.

Being a medical undertaking, the hospital has characteristics of its own. The hospital management must make many decisions purely on the basis of medical requirements. A hospital is the place where the most seriously ill members of the community are given treatment, and all decisions must be conditioned by this fact. Much emphasis must be laid on the quality of service, because this service is fundamentally important to human life. For the patient receiving treatment, this represents the only aim of the hospital. But an appreciation on this basis alone is unfeasible. The hospital must, at some time or another, establish a compromise between its aims and the quality of the treatment, and the cost of the treatment itself.

As an economic undertaking, the hospital is an enterprise like all others. The economic aspect may be even more important in the hospital than in most other concerns. Few administrators feel, as do hospital administrators, that every action is translated into terms of money. The hospital is one of the

largest economic undertakings in the community, and one of the major employment outlets.

By their very nature, hospital services require a more complex administrative structure than most other undertakings, and this is reflected in the cost of hospital services. In Italy hospital income today is derived almost entirely from fees for services rendered, but many such services are rendered without reimbursement and in other cases only partial payment is made.

Those who pay hospital fees are inclined to consider hospitals as economic concerns and tend to judge them solely on the basis of costs. Other people, on the other hand, show a lack of interest as regards the economic aspects, and judge them in the light of the aims which they feel the hospital ought to pursue.

Since resources are limited, any undertaking or organisation must be assessed in financial terms. Hospitals take a considerable share of national income and consequently must also be considered and assessed strictly on an economic basis.

Furthermore, as they are the administrators of the money of the sick, it is the duty of hospitals, more than any other undertaking, to be economically efficient. One must however bear in mind that efficiency must be achieved using all available resources. An assessment made purely on the results of the accounts would give some idea of the extent of hospital expenditure, but would show only a few of the assets resulting from this expenditure within the framework of the numerous objects pursued by the hospital.

To solve the economic problems of the hospital business, i.e. running the economic life of the hospital, we have an administrative organisation which acts according to fixed basic principles covering various sectors, some of which are common to all hospitals of similar size, and some peculiar to each particular institution.

A fundamental task of this administrative body, in dealing with matters overlapping into the sphere of medical activity, is to establish common ground between the medical and economic aspects of hospital management, i.e. a meeting point between the necessity of economic survival and public demands of an

economic nature. It must therefore aim at establishing an equation between medical consequences and financial consequences.

The tendency of patients and the public in general to assess medical consequences on the basis of individual facts and individual experience forces each hospital to do everything in its power to prepare for any eventuality. This method of assessing the medical efficiency of a hospital, daily becoming more prevalent due to the increasing number of legal proceedings taken against hospitals and to frequent scandal campaigns by the press, reflects seriously on the efficiency of hospital services. Above all it puts the hospital management in the embarrassing position of having to prove its own efficiency on the one hand, and on the other, in order to bring about improvements, to show up its points of inefficiency.

Such an extemporary form of judgment makes it all the more difficult to keep pace with current advancements in medicine while maintaining costs at a bearable level.

Our present regulations stipulate that in each hospital a medical director be appointed at the head of the medical section. He has to direct and supervise the medical life of the hospital, and this task should therefore be assigned to a doctor qualified in hygiene and hospital techniques, as prescribed by law.

The medical director carries out his professional duties, as well as acting as co-ordinator and moderator of the professional duties and technical medical adviser to the management.

According to regulations, an administrative director, or secretary, must be appointed to manage the economic concern, in the terms mentioned above, and run the administrative organisation dealing with the financial aspects of hospital life. He will undertake the duties of secretary of the institution and of its board of directors (i.e. he will act as economic and legal expert to the organisation and the body representing the community, be in charge of the running of the hospital and supervise the activities of the various departments).

The duties of administrative director/secretary, i.e. specialised administrative co-ordination and moderation, are entrusted not

to a doctor (the American doctor Watson R. Rankin, president of the Duke Foundation, stated: 'One does not have to know medicine to run a hospital, one must know management')—but to a professional man having a general training in law and economics, with particular emphasis on hospital law and management.

Up till now, an administrative director has always been considered amongst the ranks of the various legal and economic professions. Today, as a consequence of increased specialisation in all fields, even the work of administrative director of a hospital is becoming, throughout the whole world, a truly specialised profession demanding not only a basic academic or legal and economic background, but further specialised academic training.

Until now, the administrative director of a hospital has always been appointed in consideration of his specific legal and economic qualifications, his personal qualities, and his special training gained from previous administrative experience. Today, to these fundamental qualities must be added specific professional instruction on a strictly scientific basis.

The training of medical officers is based on studies in hygiene and hospital techniques and practical experience gained in exercising their duties. We all know that courses have been arranged to give specialised training in hygiene and hospital techniques, but I shall not enlarge on this as I am speaking here only of management.

Up till now training for management and the post of secretary has been confined to scholastic and academic legal and economic studies, and practical experience acquired in exercising the profession.

At the level of university studies and scientific research by individual scholars and publicists, fairly far-reaching results have been obtained in the field of administrative law, hospital and public health law in general. Abroad, namely in the United States, much has been achieved in other fields. In Italy very little has been done apart from law.

In many American and European countries those wishing to

take up hospital management are trained at university in special schools for hospital administration (there are sixteen of these schools in the United States, attached to the principal universities). The study programmes are very complex and cover the whole range of theoretical and practical subjects connected with hospital business.

In Italy, since such schools are lacking, courses in hospital administration have sprung up during the past two years due to the initiative of the Union of Administrative Directors and the CIDA, within the framework of the educational programme of the Higher Institute of Business Management. The study programmes are excellent and the best instructors are recruited from amongst the finest university lecturers and the most competent hospital administrators.

This initiative is being encouraged and developed. The Rome school is not easily accessible to all because of distance, so efforts are being made to set up a second school in the north of Italy (possibly Bologna), whilst waiting for others to follow.

This type of school must however be brought within the framework of university education. By reason of the Italian educational system this is an indispensable condition if the title is to have full recognition. The CIDA will continue to take all the credit for the initiative and in due course will have to supplement its courses by special meetings, and eventually set up refresher and perfection institutes for administrators already in office in order to promote the latest management techniques; we have to admit that we are many years behind in this field as compared with more advanced countries.

The special facets of hospital business are dealt with by a business organisation within the hospital, and are divided into various services which can be classified as follows:

(*a*) general administrative services
(*b*) supply services, etc.
(*c*) technological services

Work coming under these groups is as follows:

(*a*) *General administrative services*

—management, general business, contracts, disputes, archives, personnel, estate, accounts, statistics, auditing—all performed by the usual staff ranging from assistants to director.

(*b*) *Supply services, etc.*

—provisions and supplies, kitchens, baker, butcher, confectioner, laundry, cloakrooms, dressmaking, medical instrument service, hospital shops, linen, cleaning equipment, technical material, etc., transport of supplies and ambulance service where it exists. These duties are carried out by all types of specialised staff (bursar, administrative personnel, cooks, butchers, bakers, launderers, dressmakers, drivers, porters, attendants, etc.).

(*c*) *Technological services*

—heating, preparation and conveyance of hot and cold water and steam, lighting, maintenance of medical and technical equipment, maintenance and renewal of buildings and other assets, design and construction of building and conversion projects—all performed by various categories of technical staff (engineers, specialists, technical consultants, designers, foremen and specialised workmen); repair shops for technical installations, craft workshops for mechanics, carpentry, painting, wallpapering, mattress making—these duties are assigned to specialised workers and their assistants.

Specialised training for hospital administrations must be extended to cover at least a fundamental part of the above-mentioned activities. It is of course presupposed that candidates for management possess as wide as possible a knowledge of administration and the latest techniques concerning it.

In my opinion a specialisation or perfection course in hospital management should, in Italy, cover the following subjects at least:

General subjects:

(1) Organisation of public administration

(2) Introduction to the science of management

(3) Statistics applied to public administration
(4) Methods of administrative research
(5) Organisation and methods—general

Special subjects with regard to hospitals

(1) Hospital legislation
(2) Social legislation of interest to hospitals
(3) Organisation and methods—special
(4) Statistics applied to hospital management
(5) Management and training of personnel
(6) Personnel selection techniques
(7) Office management
(8) Technique and practice of administrative operations
(9) Administrative procedure and practical training in administration
(10) Budgeting
(11) Organisation of supply services
(12) Public and human relations

The list I have given is purely informative and is intended to give an idea of the positive lines on which the school should be run. Only educational and applied experience will show what is best in the long run, and even then it will be possible to make improvements.

NETHERLANDS

by

J. B. STOLTE, M.D.

THE NEED FOR RESEARCH IN THE HOSPITAL FIELD IN THE NETHERLANDS

We have been asked to provide information about the need for research as applied to hospitals and the health field in our countries, and about what is being done in this respect. In my effort to cope with this request I have taken into consideration the literature of the last decade. Some of it will have escaped me, for which I apologise. The rapid growth of the need for health facilities experienced after the Second World War made people aware of the complexity, and also of the tremendous cost, of medical care both in money and manpower. Therefore the question of the values received at the expense of so much human energy and money arose and the need for evaluation was felt. Very soon it became obvious that virtually no information was available concerning the hospitals' part in the provision of care and the promoting of health. According to the crude parameters used in measuring the health condition of the Dutch population the situation was rather satisfactory. Whether it was reached at the expense of as small an amount of human energy and money as was possible or whether more could be accomplished with the amounts used was uncertain, however, and the competition for a bigger slice of the cake of the national income —heavy as it is in the welfare state where so many claims are made for all kinds of praiseworthy purposes—became very keen indeed.

Machinery had to be set up to provide statistical information about the facilities available, their distribution over the country and the use made of them. The hospital organisations took their share of the burden and together with the Central Bureau of Statistics and the Health Inspectorate they began to publish extensive statistical reports about hospital facilities, their staffing and the use made of the facilities by the population. It proved difficult, however, to keep pace with the influx of material and to check it sufficiently, so that the last report is of the year 1960.

Another attempt has proved slightly more successful. It consists of a complete patient census in all general hospitals on one day every five years. The last was taken on 28th April 1959 and its results were published in September 1959. Comparison with former similar censuses gives excellent information indeed, particularly as to the distribution of the work-load over the different institutions and specialties.

Far more information is needed, however, about the other medical services in connection with the hospital statistics. The information about preventive and industrial medicine is rather scanty and the confrontation of the facts available with those about the hospital situation is virtually impossible as yet. In a lesser degree the same is true of the information about the family doctor service, the extra-mural activities of the specialists, the (excellent) home care, etc. The Health Inspectorate provides some statistics on the manpower involved; the Central Bureau of the Sick funds publishes yearly very important statistical data concerning the curative care given to about 72% of the population; the Central Bureau of Statistics published in 1960 some integrated statistical data about the work done by the home care organisations ('cross-organisations') in 1958; the Central Institute of Insurance against industrial accidents (Sociale Verzekeringsbank) regularly publishes data in its field. What is lacking, however, is integrated statistical information. There are lags and overlapping now and it is almost impossible to produce well-collated data.

The available information about the need for health facilities is even more unsatisfactory. We know up to a point the numbers of physicians (family doctors, specialists and non-curatively occupied doctors), nurses and paramedical personnel. We also have pretty good information about the hospital facilities available both in the field of general hospitals, special hospitals and psychiatric hospitals and in the field of rehabilitation centres, outpatient clinics, etc. We do not know, however, how many we ought to have to provide an optimal service. We even do not know how to establish a good programme as we have not the slightest idea of what is really needed as opposed to what is asked for. Of course, at least partly, this is due to the fact that 'health' is not an operational concept. Even presence

or absence of disease is not very serviceable as there are so many borderline cases between sickness and health both as to soma and psyche. Operational definitions are sadly lacking. We even do not know the right kind of questions that should be asked or how to phrase them in such a way that they become operational. Perhaps we have just not found the method really to control any big organisation.

Our mortality statistics are fairly complete and detailed. The pertinent information gained from them is very limited, however. There are virtually no morbidity statistics. In our opinion their lack is one of the main deficiencies when it comes to getting an operational view of what is needed. Efforts to establish need by health survey of a small part of the population (*Stolte* 1949/50) had to be left because of lack of funds. An interesting approach by *Bruijel* (1958) should be mentioned here. He tried to determine the relation between social circumstances and hospitalisation. A thesis of *de Waard* (1960) like the study of Bruijel, used the figures produced by the sick funds to probe into the problem of need and want. *Querido* (1953/54 and 1958/59), studied older age groups to determine their need of medical care.

Not only do we not know what is needed or wanted, we also do not know how the need should be met, what would be the optimal way of deploying the manpower and the facilities involved. Experiments are badly needed but it is difficult to see how they will get initiated. Comparison with the situation in other countries along the lines of 'Alternatives of Hospital Care', a Council of Europe Report (Strasbourg 1963), might help if quantitative aspects were added. Whereas distribution of the facilities is not very important in our heavily populated country with its excellent means of communication and transport, regionalisation is still a big problem that has been hardly touched upon. The Ministry of Social Affairs and Health Care has induced a descriptive study of the combined enterprises of hospitals throughout the country (1951). Studies were made of the hospital facilities in several regions, giving figures and facts about the situation at the present time and of the provisions deemed necessary from the general point of view (e.g. the Report on the Hospital Situation in Southern Limburg 1952, and

others). More work has been done about nursing-homes for the chronic sick and the need for geriatric care (*Schreuder* 1954, *Ploegmakers* 1956, *Bronts* 1956, *Mannichts* 1956, *v. Zonneveld* 1961, *Prov. Raad Vgz. Noord-Brabant* 1961, etc.), perhaps because of the severe shortage in this respect.

On a small scale and in respect of details a lot of research has been done. The scope of the family doctor's performance has been probed into (*Buma* 1950, *Querido–Kreger–van der Heul* 1950–51, *van Deen* 1952, *Buma & Bak* 1952, *Hogerzeil* 1954, *Ruhe* 1957, *Jansen–Emmer* 1958, *van de Wielen* 1960, *van Goor* 1962, *Brenkman* 1963) and his part in curative and preventive work described both qualitatively and quantitatively. It is to be noted here, perhaps, that whereas 'the most revolutionary step taken by the National Health authorities was the provision of a general practitioner for every citizen' (*Brotherston*), the Dutch have indulged in this for several decades. There is, however, an almost clear-cut division between the general practitioner service and the hospital service, the G.P. having no access to the hospital's in-patient or its out-patient department. On the other hand, the hospital and its consultants will only became available to the patient through his G.P., there being very few exceptions to this rule. Environmental health is taken care of by the Health Inspectorate and the departments of public health of the larger cities, whereas preventive medicine is practised by both the G.P.s and the cross-organisations who also take upon themselves the extensive home-nursing programme. One would like to know whether this division of labour is giving a better or a less acceptable care both as to the quality and the amount of it than another one. We just do not know. An interesting descriptive comparison between the medical care given in an American and in a Dutch town of comparable size has been given by *van de Sande* (1958).

The work-load taken on by the out-patient departments of the Dutch general hospitals is very high indeed. There are no accurate figures available, however, about its extent. Neither do we know anything about the acceptability of the ratio of in-patients to out-patients—an important figure as most in-patients are admitted through the O.P.D., and hardly ever is a patient admitted on the indication of the G.P. alone. One would like

to know also how the out-patients–in-patients ratio is influenced by the modus of remuneration of the consultants by the sick funds, as one would like to know whether the remuneration of the consultants and the G.P. should be more inducive to consultation of the two at the home of the patient, strengthening the force of the home team at the expense of some time-spending by the consultants outside the premises of the hospital.

Is home-care of the district-nursing type really less expensive and how do its results compare with those of hospital service? We are aware of the pathogenic influence of the hospital, both from the somatic as from the psychological point of view, particularly as concerns children, but we just do not know with any precision the relative merits of home care as opposed to hospital care.

Most normal births with us take place at home. So far as the overall figures show, the results can stand comparison with other Western countries. Nevertheless, there are important differences from one part of the country to another that are unexplained as yet. Repetition of the evaluation of pre-natal care on the lines designed by *Querido* (1954–55) for Amsterdam in other parts of Holland are called for. As to costs, the Green Cross Organisation recently (1963) published some figures showing that home care for the mother and child is not outstandingly cheaper than hospital care, although the difference is still quite important. More figures on the same lines are needed, we also need more information about the late consequences of hospital *v.* home care for both mother and child.

The custom of confinements taking place at home, of course has some influence on the number of hospital beds needed. Because of the shortage and obsolescence of hospital beds caused by the Second World War and the scarcity of means and manpower for building and rebuilding thereafter, a lot of work has been done to find indications for the acceptable number of beds over population, too many beds being considered as undesirable as too few. The Ministry has estimated the need at 4·5 beds/1,000 population on rather arbitrary grounds. In 1950 the Amsterdam Office for Public Health Care devised a more sophisticated method of estimation more or less along the lines of the queueing theory that has become so popular in Britain.

Being geared to want instead of need it has not been adopted by others. Other efforts like those of *Ouwehand* (1957), *Cleijndert* (1959) and *W. de Moor* (1960) provided some new sidelights on the problem without, however, coming to a really workable solution either. An important aspect, that of the 'rate of flow' in long-stay units like the nursing-homes for the chronic sick and the aged, was elucidated in a Report on Old People's Homes from the 'Opbouworgaan Noord-Brabant' (1960).

Questions related to the need for hospital beds are the length of stay and the turnover interval. The factors involved in determining these parameters have been studied (*Bronts & Zonneveld* 1957, *Querido & Torren-Maandag* 1960, *de Moor* 1960). Some inefficiency in the organisation has been shown to cause too long a stay in hospital in some cases. This is related to the quality of care, one of the most difficult aspects. It is not a very operational concept, having somewhat the character of a value-judgment. *Querido* and his staff (1952–54, 1954–55, 1956, 1958–60, 1959, 1960–61) have studied the problem of evaluation of hospital treatment of patients with different diseases (asthma, rheumatism, etc.) and of different ages and particularly the problem of repeated hospitalisation. Other attempts to evaluate the quality of care along the lines of the external audit are those of *Scheijde* (1959) and *Hoogendoorn* (1963). As yet only very few hospitals have joined this scheme.

The problem of costs, of course, has been given a lot of attention by the Dutch. The Central Bureau of Statistics has analysed the costs of all aspects of health care and the way they are financed. This has been done for the years 1953 and 1958 which has provided a lot of very interesting information and will be repeated every five years. A lot of information has been brought together by *van Berkum* (1962, 1963). In his thesis *Groot* (1960) has analysed the market situation of the hospital. Departmental costing was introduced in most hospitals just after the war and has developed into a real tool of management. It was the starting-point of differentiated comparison of costs between similar departments of the same hospital and of several hospitals of both the same and different sizes. This having been done for almost a decade trends have been established and some kind of a standard is being set. Nevertheless, in spite of progressive

sophistication the handicap of the uniqueness of each hospital has not yet been overcome, so that no real indicative data have emerged that could be used as a lead. Another important report is that of the Central Service of Accountancy of the Ministry of Finance (1957). It performed an intensive and extensive piece of research on the factors involved in determining the cost price of hospital services in 18 hospitals. It goes to show how difficult it is to come to a valid comparison as hospitals almost always are in a transitory and not in a steady state. In this report, as in that on cost of the Commission on Hospitals of the Ministry of Social Affairs and Health Care (1959), it was shown that the influence of developments in the medical field on cost of hospital services is on the whole fairly small and becomes felt only very gradually, whereas in the last decades the overall rise in wages and prices has been the essential factor (the shortening of working hours per week being equalled with a rise in wages). A memorandum (1963) of the Economic Institutes of the two main Dutch hospital organisations did show the same tendency, but it also gave indication of a small but significant increase in efficiency together with an absolute and relative increase in demand in respect of the services of the general hospital. Another analysis of *Scheffer* (1963) did show that whereas the rise in wages was very important indeed, depreciation also accounted for a relatively important part in the rise of hospital costs.

Although these and other studies about cost have produced interesting data the fact that they are not collated with other than the roughest data on performance detracts a lot from their value. There have been some studies on the results of the use of hospital services. *Querido* and his group have tried to evaluate the hospitalisation of patients with various diseases (1954–55) in general hospitals and the significance of repetition of hospitalisation both in adults (1952–54) and in children (1958–60). Some of this work has been published in the British Journal of Preventive and Social Medicine, XIII, I, 1959, and in his book on The Efficiency of Medical Care (1963). He also did the same with the work done in out-patient departments (1956) and in respect of after-care of patients discharged from psychiatric hospitals (1954–55) and from general hospitals (1960–61).

The attitude of the population in respect of hospitals is of importance for their willingness to make use of hospital services and also for the recruitment of personnel. An important study of the situation in Amsterdam on the lines of market analysis has been done in 1961 (*N.I.M.M. Report*, 1961). An even more interesting study (1958) is that of the image of the insane by the Foundation of Community and Mental Health. It does show that although there is still much scepticism about the chances of recovery from insanity the psychiatric hospital is held in far better esteem than some decades ago.

The problem of health education with its import on want of medical and hospital services in relation to need has been studied by the Central Health Council. Its bulky report appeared in 1962. An earlier study was made by *Winsemius* (1954).

The need for health facilities and for personnel of course has been studied too, be it rather sketchily. Apart from the already mentioned studies about the need for general hospital beds, there have been some studies about the need for psychiatric hospital beds (for Gelderland by the *Veeger Institute* 1959; other studies are those of *Kortenhorst* 1958, *Lumey* 1958, *De Smet* 1958 and 1963, *Querido* 1962), about the need for nursing-home accommodation and geriatric care (see above), about the need for doctors (*Verdoorn* & *van der Maden* 1952, *KASKI* report 1955, *Stolte* 1955, 1959, *Hornstra* 1959, *Dalmulder* 1960) and for nurses (*Ec. Soc. Inst. Tilburg* 1956, *De Moor* & *Stouthard* 1959, *Baaij* 1961). All these studies suffer, however, from the fact that their starting-point is demographic and that the authors just do almost nothing else but extrapolate into the future what has been happening in the past, burning incense before the altar of the 'trend'—and burning their fingers in doing so time and again. The sign post has not seen need or even want, but only the fulfilment of what was asked for in the past.

The factors influencing the decision to become a nurse, a doctor or another health worker have only been studied very superficially with the exception perhaps of the study of *de Moor* & *Stouthard* (1959) already mentioned, who have analysed some of them in respect of the nursing profession. Neither do we know much about what the career structure in the nursing profession should be although its influence on recruitment particularly for

sisters' (head-nurses) and matrons' posts which are difficult to fill is quite obvious. The Federation of Associations of Nurses published a report on Continued Postgraduate Training of Nurses in 1954. A study is now taking place to produce job-descriptions (after analysis) of the various echelons of the nursing profession and also of auxiliary medical personnel, its aim being to find a more rational basis for remuneration. The same is being tried for para-medical members of the medical staff, e.g. psychologists, biochemists, pharmacists, physicists, etc. Both studies are sponsored by the two organisations of hospitals as a joint effort.

Quite a few studies concern the organisational framework of the hospital. The Commission on Hospital Standards of the Catholic Hospitals Association produced some excellent studies on trusteeship and on management (1959, 1960). *Stolte* (1961, 1962) published some papers on hospital management. The relation of the medical staff to the organisation of the hospital has been studied by several institutions and people. (*Dutch Medical Association* 1959, 1960, *Burkens* 1961, *Pannekoek* 1958, 1962, *Stolte* 1962, *v. Nieuwenhuizen* 1962, etc.). The microclimate of both the hospital and the ward have been studied from the organisational, the sociological and the psychological point of view. *Inter alia* this has led to the concept of 'sociosis', a kind of neurotic condition of the organisational body caused by sociological tension with its disturbing influence on the organisation as a therapeutic community. The patients' reactions on hospitalisation have been studied by *Faber* (1956), *Smeets* (1956), *Burkens* (1959) and *Jongmans* (1959) and particularly by *Bremer* (1963) and in respect of the child by *Dicke* (1959) and *Jongkees* (1959). *Drogendijk* (1961) and *Stolte* (1960, 1961, 1962) studied sociological aspects of hospitalisation and of the hospital as a system.

Problems like centralisation of services (bed-service, plating out of food centrally, cleaning service, central sterile supply, etc.), of deviating methods of nursing, like progressive patient care, team nursing, etc., of the introduction of new administrative methods and new equipment, of cross-infection, of occupational hazards and many others have been studied from many angles as it has been done all over the world. The consequences

of all these and many other considerations on building have been studied particularly by Commissions of Study of several parts of the hospital (e.g. the various nursing units, the pharmacy, the mortuary, the out-patient department, etc.) initiated by the Commission for Evaluation of Hospital building plans of the Hospital Organisation and the 'Bouwcentrum'. It is a pity, however, that these reports all suffer from the fact that there has been not enough possibility of doing operational studies and of experimenting.

Summary

Recapitulating, we have as yet no concrete idea of what is really *needed* in respect of medical care, particularly as to curative care. Neither do we know much about what is *wanted*, although some vague notion exists. Our knowledge of the factors involved in determining want is quite incomplete. To what extent need and want are met effectively is far from clear. We do not know how to deploy the manpower and the facilities at our disposal to the best advantage. This pertains to the medical care of the acute and chronic sick and to the psychiatric patients. Experiments and investigations are needed badly.

The present situation has developed quasi-spontaneously. Habit and tradition and vested interests have been its fairy-godmothers. We do not know how to bring about significant alterations—should they be proven to be necessary—without risking disruption. We would like to know, e.g., whether we could induce desired changes smoothly through a change in the modus of remuneration or whether other methods are preferable. We would like to gear our training programmes to meet future requirements both qualitatively and quantitatively—a particularly important question because of the time-lag between the initiation of any change and its outcome. As our knowledge is insufficient we will have to muddle through as best we can, envying the British because they have mastered this art so much better and using intuition as an effective smoke-screen for illiteracy. In the meantime machinery will have to be set up for study, research and experimenting. Intensive comparative studies of the set-up in other countries will be of importance. It is to be hoped that money will be provided. The goal is important enough.

NORWAY

by

T. HAUAN, M.D.

There are indeed many problems that are still unsolved in hospital administration in Norway. The most important of them, and for which no definite solutions have yet been found, are related to:

1. The financing of hospitals.
2. The staffing of hospitals.

The Financing of Hospitals

The problem of financing includes both the question of how to cover the ever-increasing cost of running hospitals and the capital investment.

The large majority of hospitals in Norway including about 85% of hospital beds are owned and operated by public authorities: either the national government, a province or a commune. Up to now no law has regulated which authority should build hospitals of various descriptions, but by long-standing tradition the national government has assumed all or part of the financial responsibility for capital investment in hospitals for leprosy (in the last century), for tuberculosis and mental disease and for the university clinics.

The provincial governments build the larger central hospitals and the individual communes the smaller local ones.

Approximately 15% of the total of hospital beds are maintained by voluntary health organisations of one kind or another, in non-profit institutions. Profit hospitals do not exist in Norway. The total cost of running the Norwegian hospital system comes to about 544 million Norwegian kroner (1961) per year, corresponding to 1·62% of the gross national product at market prices 1953–61. Hospital services represent the most costly item of personal health care.

Regardless of whether a hospital is run by central, provincial or local government or by voluntary organisations or religious

groups, it will in regard to sources of income fall in one of two groups. One group includes hospitals for feeble-minded and epileptics, tuberculous and chronic (non-curative) mental cases. The full cost of the patient's hospital care is under special laws covered 6/10 by the province and 4/10 by the national government. The other group includes all other general and specialised hospitals, also hospitals for active curative treatment of mental and tuberculous patients.

Originally the Health Insurance Institution paid the full cost of the patient-day. However, in 1944 the Price Administration, as an anti-inflatory measure, introduced a system whereby a maximum was fixed for the amount which the Health Insurance Institution could pay the individual hospital per patient-day. The rest of the cost of running the hospital would then as far as public hospitals are concerned come as allotments from public funds, derived from general taxation.

All hospitals are classified by the Director-General of Health Services, according to the quality of care. The assessment is based upon degree of specialisation, quality of medical staff, standard of equipment, laboratories, buildings, etc. At present (1964) the pay rates per patient-day are as follows:

Hospitals in Class I (university clinics)	62.–Norw. kroner
Hospitals in Class II (general and all specialties)	58.–Norw. kroner
Hospitals in Class III (3 depts. and part-time specialists)	55.–Norw. kroner
Hospitals in Class IV (3 departments)	52.–Norw. kroner
Hospitals in Class V (surgeon but no differentiation)	50.–Norw. kroner
Hospitals in Class VI (large cottage hospitals)	38.–Norw. kroner
Hospitals in Class VII (small cottage hospitals)	32.–Norw. kroner

(Exchange rate: £1 = 20 Norw. kr. (approximately.)

Operative costs in Norwegian hospitals at the present time (1964) run approximately as follows:

University clinics from	110 to 125 Norw. kr. per patient per day
General, provincial hospitals	50 to 80 Norw. kr. per patient per day
Smaller local hospitals	35 to 50 Norw. kr. per patient per day

The deficit of running public-owned hospitals is made up by contributions from State or local authorities.

Because of the lack of full coverage of running expenses through the Health Insurance Institution a constantly increasing part of the tax funds have to be earmarked for filling this gap. The local authorities, seeing an increasing amount of their tax funds spent on hospitals to the detriment of other activities for which they are equally responsible, have raised the question of how to find other methods of financing the running costs of hospital care. They have evidently in mind to lighten their own burdens by finding other financial sources than their own budgets.

The running deficit has to a certain extent discouraged local and provincial authorities from expanding their hospital services, especially in the economically weaker counties where an improvement is most needed.

Since no generally accepted system for splitting costs exists between local, provincial and the national government, the local and provincial government sometimes attempt to press the national government for contributions.

A Royal committee was therefore appointed in 1957 to look into the whole matter of planning, financing and running of hospitals. As a result of the committee's first report a temporary solution has been found for a five-year period in the field of mental hospitals. For general hospitals, however, the difficulties still exist. In the second report (1963), as far as the capital investment and covering of running expenses are concerned, the committee split into several fractions, and the whole matter is at present under consideration. The national government will, probably in 1965, propose a general hospital law and it is hoped that the financial difficulties will then be finally settled, and a

more satisfactory and clearcut method for covering the capital investments will be found for general hospitals. With regard to the coverage of the costs of running hospitals the committee has suggested that the health insurance should, as a general rule, cover at least 85% of the running expenses.

The Staffing of Hospitals

The problem of the medical staffing of hospitals is related to the general shortage of physicians in Norway. Ever since the last war the demand for new physicians has been beyond the capacity of the medical faculties. The lack of physicians was first felt outside the hospitals in the field of general practice, but in the last years it has also been felt inside hospitals in spite of the fact that the number of doctors working in hospitals on the basis of full-time employment now is amounting to about 50% of all the members of the medical profession.

A survey in 1962 showed that about 25% of the junior medical positions were vacant, and the situation has not been improved since then.

This problem cannot be solved by the hospital administration alone, but is a problem mainly for the Ministry of Education. Only a limited number of all those who apply for admittance to enter the study of medicine, can be admitted, the student capacity of the faculties being insufficient.

Some of the students who are not admitted in Norway have been admitted to universities in other Western European countries, and they are a very needed contribution to the medical profession when they return to Norway after having finished their studies abroad. Nevertheless, the problem is not solved in this way. In the long run it can only be solved by increasing the capacity of our own universities. Plans are now made for this purpose, including the establishment of a third university. This is of course a long-range plan, and in the meantime investigations are being made into the question of whether our traditional system of medical staffing is really fitted to the present-day situation.

A joint committee with representatives from the Directorate

of Health, the Norwegian Medical Association and the Hospital Department of the Town and Country Municipalities Association has been formed to look into this matter. The committee has not yet finished its work.

As to the nursing situation there is today also a shortage, but not for the same reasons as mentioned for the doctors. Today more nurses are graduating from the schools of nursing than in previous years, every nursing school in Norway having increased its capacity, and new schools having been established. There are in Norway about 21,000 Registered Nurses, but only approximately 15,000 of these are active in nursing. Great numbers of nurses leave the profession yearly, so that even as we educate more nurses than before the increase does not meet the ever-growing demand for nurses' services.

The usual cause for leaving the profession is early marriage. Only a few of the student nurses will leave during the time of education, but the young nurses have on account of their education established a reputation for making excellent wives and mothers.

The hospital work, with its necessity of rendering service at all hours, is not attractive to married nurses, and is even impossible for them when there are small children in their own families.

In Norway we have tried different ways and means to solve this problem, that is to say to offer the married nurses part-time employment, and refresher courses for nurses who have been out of hospital work for several years. Some hospitals have also tried establishing day-homes to care for children of nurses, but none of these measures has been sufficient to alleviate the shortage of nurses.

To meet the deficit we have been forced to accept a system of nurse-aides. Several schools have been set up for educating this new personnel in their work. Their education takes eight months. Even if this system is relatively new in our country we believe that it will be of great help for bettering our nursing situation.

PORTUGAL

by

Dr. (iur) CORIOLANO FERREIRA

Some of the most important problems arising from the evolution of hospital administration can be dealt with under the following three headings: (1) Hospital organisation; (2) Administration of the hospitals and (3) Medical work in the hospitals.

PROBLEMS RELATING TO HOSPITAL ORGANISATION

1. *Hospital organisation and economic development*

The hospital organisation of a country should keep in touch with the national and regional plans for economic development and the quantitative and qualitative changes the population undergoes. Thus:

(*a*) In the plans for national economic expansion or development considerable importance should be paid to the promotion of health, which, together with education, forms the mainstay of a nation. Now the hospital constitutes the primary and most vital element in the scheme for the safeguard and promotion of health;

(*b*) The hospital, in turn, forms a vast economic unit which brings much business to the region in which it is situated and should therefore be regarded as a vital element in the economic activity in the region and considered as such in development plans;

(*c*) The changes brought about in the quantity and quality of the population by the development plans should be followed carefully. It often happens that, as a result of these plans, there is a decrease in the population in agricultural areas and a consequent rise in the population of other areas. In the former there will be an excess of hospital beds while in the latter there may be a shortage of hospitals. Another consequence of the development plans is that certain regions may have to switch

mainly from agriculture to industry or to join tourism to fishing. Now, we are all aware, the hospital with the medical services it provides has to vary according to the type of population it serves.

In Portugal regular meetings are now being held between the representatives of the Central Hospital Board (Direcçao-Geral dos Hospitais), the Technical Department of the Economic Development Board (Gabinete Técnico dos Planos de Forento Económico) and the Town-planning Board (Direcçao-Geral de Urbanizaçao) to go into the points mentioned herein.

2. *The size of the hospital and the population*

The size of the hospital used to be determined by the number of inhabitants residing within a given geographical area. One took the size of the population and built the hospital accordingly.

But then medical resources got more and more complex, more highly specialised and more costly and there grew a need to concentrate them in hospital centres which would be both scientifically and economically feasible. It was soon realised, in view of the ease and speed of travelling in modern times, that this concentration of medical resources would indeed be possible. The order of thought regarding hospital construction was therefore inverted and the size of hospital now came to depend on its scientific and economic practicability. The geographical area and the population to be served was then determined in conjunction with a transport network.

Transport therefore becomes a fundamental element in our hospital system.

In Portugal the possibility of rationalising and organising the transport of patients and medical staff is being investigated and the law determining the size of hospitals is being revised.

3. *The importance of the general hospital*

The general hospital has re-established its position as the principal centre of medical care and rehabilitation.

In Portugal all general hospitals maintain services for maternity and T.B. cases. Under a recent law (Law 2 118 dated 3rd

April 1963) it was determined that the geographical organisation of the mental health services should follow the same geographical division of the country as had been adopted for general hospitals organisation and that in all general hospitals there should be a unit for mental cases.

4. *Rural hospitals—health centres*

The hospital as such is being kept to the more densely populated areas (districts or regions in Portuguese nomenclature), whereas the rural hospital has taken on the feature of a health centre.

In Portugal, the Act on Health and Public Assistance (Act No. 2 120 dated 19th July 1963) stipulates, in Base XXI, that the public health and social assistance services should be provided, preferably, in sub-regional (or rural) hospitals.

PROBLEMS RELATING TO THE ADMINISTRATION OF HOSPITALS

1. *Extroversion of administration*

A hospital, as an isolated unit interested only in its own affairs, is inconceivable today. Each hospital is part of a national system in which it plays a clearly defined role. The system will only work so long as each unit fully understands and carries out the general policy.

The administrator cannot afford to occupy himself exclusively with the affairs of his own hospital but must acquire clear insight into the general external problems that affect his hospital.

The administrator has therefore two responsibilities; an internal one to the hospital board and an external one to the regional and national links in the system.

This system of hospital administration on a national scale is being set up in Portugal by various means but not without difficulty.

2. *Pooling of the sources of income*

Up till now the income of the hospitals came from the State, the community or local councils, from social insurance, from

charity, from individual sources, etc. There was no general plan stipulating how much would be received from each of these sources. Each one acted independently, regardless of the others.

There is now a tendency to substitute this classical diversity of sources of income by pooling them all on a national scale.

The rise of the national health service, the spread of social security and the formation of national funds for medical care are leading towards a pooling of finances such as is gaining popularity in many countries.

In Portugal this matter is already being studied.

PROBLEMS RELATING TO MEDICAL WORK

1. *Open hospital*

The hospital is opening its doors to all doctors in the community even to those who are not on the permanent staff. As the hospital is financed by the community, it cannot support only a limited group of doctors but must be at the disposal of all doctors who need it.

This evolution means that the hospital's services must be adapted so that they function, as far is possible, in the same way as in a consulting-room for private practice.

The installations must be improved, timetables altered, beds reserved for private patients, consulting-rooms arranged for doctors not on the staff, hospital charges revised, etc.

Although this 'open-house' system has already been put into practice, up to a certain point, in Portuguese hospitals, it has still not been made law.

2. *Uncontrolled or controlled therapy*

Freedom of action in therapy, as has always been claimed by the medical profession, means the treatment prescribed should only comply with the scientific criterion regardless of the need to economise on budgets or to simplify the administrative organisation of the hospital.

This freedom of action has recently met with opposition, at least in the extreme to which some doctors take it. It is now clear that there is a need to balance this freedom of action with the economy on budgets imposed by the new concept of public administration.

The use of prescription forms has now been made compulsory in the hospitals and technical committees made up of doctors and pharmacists have now been appointed with an aim to establishing the necessary balance.

In Portugal Decree-Law No. 44 204 dated 22nd February 1962 lays down rules in this connection which are now being applied.

3. *Administrative control of the yield of the medical services*

It is now an established fact that the administration is not overstepping the limit when it demands that the yield of the medical services should be controlled so as to judge the yield of the hospital as a whole. Even although the heads of the medical services are undoubtedly the finest judges of the technical efficiency of their services, they are not the only ones who must judge. The administration, on behalf of the community, has also the right to become acquainted with this efficiency.

The problem, which has been raised at international congresses, lies in deciding which indexes are demonstrative of the medical-social yield of a hospital and its services.

The ideal method has still not been found but the usual indexes—average length of stay in hospital, bed occupancy, turnover interval, waiting-lists, number of patients re-admitted, hospital expenditure, charge per day, etc.—would seem to be satisfactory for the time being.

It would seem advisable that the heads of the medical services should aid with this control. From personal experience gained in this field I would suggest that the heads of the medical services meet the administrator periodically so that they can examine together the way the services are functioning and discuss means of improving them.

SPAIN

by

Dr. (iur) M. DE LA MATA

PRESENT-DAY PROBLEMS OF HOSPITAL ADMINISTRATION IN SPAIN

It is generally admitted that the modern hospital has reached its present degree of maturity and efficiency due to the simultaneous progress and development of three fundamental factors:

—medical services

—nursing care, and

—hospital administration.

If we analyse carefully these three points we have to admit that all play an equally important part in the functioning of the hospital, and that no priority can be given to any one of them. Because whatever the importance of the administrative factor which ensures a rational organisation of the hospital by allotting equipment and funds necessary for its activities, the medical services which after all are the 'primum movens' of the institution and the very reason for its existence, are no less essential; none the less fundamental is nursing care, without which medical treatment in a modern hospital is inconceivable.

Although this may seem paradoxical since we are attending a conference on hospital administration, I should like to emphasise that the importance of hospital administration should not be magnified to the point of believing that without it the hospital would not exist.

Nor is it a fact that the hospital is a business undertaking and that the running of it entails only a knowledge of administration, with or without a knowledge of medicine.

The hospital is not a business concern, since it is run, or should be, on a non profit-making basis, and there is no doubt that one cannot conceive a business which does not aim to make a profit or gain. To be sure, an institution such as a hospital does

encompass certain aspects or nuances of a business, such as striving for maximum possible efficiency at a minimum cost, but above all the hospital is a public service with the most noble aim of all, to give help to the sick.

Let us not therefore, by talking so much about hospital administration, be caught up in the case of the German aircraft engine factory quoted by Parkinson. When their complete works had been destroyed by bombing and only the administrative building and its staff remained, they justified their existence by this side of the business and continued to send out papers as if nothing had happened, even going so far as to advocate the necessity of increasing their administrative staff.

I shall now discuss the problem of hospital administration from my own viewpoint as Secretary of a Central Committee for Hospital Co-ordination, an office which I have held for the past five years in Spain.

My point of view will probably differ somewhat from that of administrators who are in daily contact with the continuous problems arising from the management of a hospital, but on the other hand my position on the outside enables me to appreciate other factors and problems of no lesser interest.

First of all I feel I must give you an outline of the hospital situation in Spain in order to show you our problems of hospital administration within this set-up and indicate the measures we intend to adopt to try and solve the most urgent questions.

Hospital situation in Spain

Spain, with a surface area of approximately 500,000 Km^2 (195, 312½ sq. miles) and a population of 30 million, officially has about 90,000 beds distributed as follows:

—Hospitals for acute patients	(320 institutions)	56,000 beds
—Hospitals for chronic patients	(psychiatric, 44 institutions)	18,000 beds
	(TB sanatoriums, 60 institutions)	16,000 beds

The bed/population ratio in public hospitals is therefore 3:1,000.

There are two large networks of hospitals for short-term patients in Spain: the Social Security hospitals and hospitals run by local corporations (district and town councils).

The network of Social Security hospitals is the largest in the country and is made up of 50 general hospitals with about 12,000 beds, all very modern, the oldest being only twelve years old. You will be able to appreciate from the film I am going to show you the architectural aspects of these hospitals and the excellence of their installations.

Besides the Social Security hospitals we find the provincial and town hospitals in the various Spanish provinces. There are 70 provincial hospitals with a total of 20,000 beds, but most of these centres are very old and badly off, and material conditions are very poor. This does not mean there are not a few exceptions such as Madrid, Oviedo, Valencia, Barcelona and San Sebastian.

The State itself runs only a few centres; Madrid has the General State Welfare Hospital with more than 1,000 beds, the King's Hospital for infectious diseases, and the National Cancer Institute under the auspices of the General Health Administration (Ministry of Health).

Spanish university hospitals are sadly lacking from the material point of view; however, there are two hospitals of high standing, one in Madrid with 1,500 beds and one in Valencia with about 500.

As regards hospitals for long-term patients, we must point out that TB sanatoriums come under the National TB Foundation, an autonomous body within the General Health Administration. This Foundation has about 60 centres and some 16,000 beds.

Most psychiatric hospitals are run by local corporations, but the National Foundation for Psychiatric Care, which comes under the General Health Administration, has some institutions of its own.

Some religious orders such as Hermanos de San Juan de Dios have set up hospitals for the mentally sick.

The total official number of beds for psychiatric patients is about 18,000.

Organisation of medical services

Half the population of Spain, i.e. approximately 15 million inhabitants, are covered by Social Security as far as health service is concerned.

Hospital benefits granted by the Social Security are fairly extensive and cover hospitalisation for all types of surgical operations, maternity and paediatrics. Hospitalisation on other medical grounds is only provided for in cases of extraordinary gravity or difficulties of diagnosis, when not covered by compulsory contributions.

All those covered by Social Security receive hospital treatment in the Social Security's own centres; however, in a great many cases Social Security beneficiaries are taken into other public provincial or university hospitals—according to agreements drawn up between them and the Social Security.

Hospital expenses incurred by the beneficiaries are borne entirely by the Social Security, both in their own institutions and the others.

The clientèle of hospitals run by local corporations and the State—university and Ministry of the Interior hospitals—is made up by Welfare patients (although their number is constantly on the decrease, these still make up 10% of the population) and by people from autonomous work sectors, mainly agriculture, which do not come under the field of application of Health Insurance. Some of the more wealthy patients from higher social classes also attend these hospitals, if they are of high standing.

In accordance with the Hospitals Law, patients have to pay their own hospital expenses, but charges are generally very moderate. Welfare patients are supposed to receive free treatment.

TB clinics and institutions for the mentally sick are run on similar lines to public hospitals for acute patients, but their charges are lower still.

We might point out that despite the low bed/population ratio in Spain—3:1,000—there is no waiting list for hospital beds. This must be attributed to the big expansion of diagnostic centres and improved organisation of GPs within the Social Security; also to public assistance for the welfare population from general physicians. The customs of the country also have a bearing on this point—the sick do not usually go to hospital unless they are really seriously ill.

Hospital administration

Hospital administration in public hospitals in Spain is rather backward as compared with the other two factors: medical services and nursing care.

In any case, we may define two very different fields in this connection: Social Security hospitals and other public hospitals.

Social Security hospitals: Administration of these hospitals is very efficient and largely centralised; the 50 hospitals are responsible in a certain measure, to a general administration. This does not mean there is not a certain amount of decentralisation and autonomy in the management of the centres, but a great deal of purchasing and supplies is done at a central source.

All institutions are run on a similar basis, and the layout and methods of accounting and finance are analagous in all health centres.

A yearly budget or theoretical economic programme is drawn up for each centre; payments are made in accordance with this and any discrepancies are compensated for at the end of the financial year. Consequently, these institutions never have economic or financial problems, as the Social Security provides the necessary funds to cope with all their financial needs.

At the head of each Social Security hospital we have a full-time medical director who is an expert in health administration and is recruited from amongst its medical inspectors. This director gives no treatment in the centres nor does he carry out any extramural professional activities. He is the highest authority in

the hospital and is responsible for the efficient running of same, both from the medical and administrative point of view. Also assigned to the management of the Health Residence (as Social Security hospitals are called) is a lay administrator who deals direct with the economic and administrative affairs of the Centre.

Lay administrators are appointed from the general body of officers of the Instituto Nacional de Previsión, and in a great many cases they have no university degree nor are they specially trained for this work; nevertheless in the great majority of cases, in view of their general knowledge of the mechanics of Social Security, they carry out their duties successfully and competently.

The combination of a full-time medical director and a lay administrator under him has given good results in practice and we can state fairly that these hospitals, from the point of view of administration and the quality of treatment, are the finest in the country.

Other public hospitals: Administration in Spain's other public hospitals is generally very poor, and except in a few isolated cases such as the Asturias General Hospital which has an excellent system, the State General Welfare Hospital in Madrid, and the Clinico y Provincial in Barcelona, leaves much to be desired.

In these hospitals the management falls to a head physician of the institution, who combines his medical activities and the exercise of his profession with the management of the centre. The result of this is that in the majority of cases he shirks the administrative side of the hospital and often takes advantage of his position to obtain various material benefits for his department.

The inefficiency of these directors contrasts with the efficient work carried out by the full-time directors in the Social Security hospitals.

Independently of the directors, some of these public centres also employ people recruited from amongst the administrative staff of local corporations, or even from officers of State tech-

nical administrative bodies. These administrators receive no special training in hospital management and generally learn from experience. This, combined with the fact that the medical directors show a lack of interest and a scanty knowledge of hospital administration, means that the running and functioning of these hospitals is somewhat defective.

Management organisation in TB sanatoriums shows us an intermediate situation. Although not reaching the standard of efficiency of Social Security hospitals, they are nevertheless run better than the average local corporation hospital. They are fairly centralised, all being under an autonomous organisation. the National TB and Chest Disease Foundation. Their purchasing and supply system is centralised. In charge of each sanatorium is a director specialising in chest diseases who deals exclusively with the treatment side, assisted by an administrator from the technical body of the Ministry of the Interior or from the staff of the clinic itself.

These administrators have received no specific training whatsoever in hospital administration and as in the case of other public hospitals, their experience is gained from carrying out their duties.

Problems of hospital administration in Spain

If we were to set out each and every problem arising in hospital administration in Spanish institutions, we should overstep the limits of a work of this kind; in theory, however, we can group them under the following brief headings:

—political interference

—appointment of managers

—technical and economic problems

—education and training of hospital administration staff

Political interference. One cannot fail to realise that hospital treatment is a political force of the first magnitude for those concerned—be it the State, local corporations or Social Security. And it is not rare to find health schemes playing a big part in party political programmes.

In one sense, one can interpret politics as being definitely favourable and beneficial to hospital development; on the other hand, they can have a very unfavourable influence on the economic development of this type of institution, particularly in the field of administration.

Fundamentally, political interference can have a harmful influence on hospital administration in the following ways:

(*a*) unjustified construction of new hospitals;

(*b*) imbalance of hospitals already in existence by the creation of unnecessary new services and departments;

(*c*) arbitrary appointment of managers and administrators.

Alter's first recommendation concerning the construction of hospitals was that no hospital should ever be built unless it corresponds to a specific necessity, and of this we are all aware.

Unfortunately, it is very difficult to convince politicians of the importance of this maxim, and there are many public men who would not dream of spending a term in office without having some kind of public institution built—unfortunately in many cases a hospital—in order to give authentic proof of their activity, or what are pompously called 'achievements'.

I could at this moment mention a number of hospitals built without any justification; these should bear a name of their own —that of the politician of the moment who had them built unnecessarily.

One can readily understand that when an institution is unnecessary or its size out of proportion to its needs, the administration cannot be efficient; and I feel very sad to think that the hospitals I mentioned to you have only had an occupancy ratio of between 10 and 30% during the past ten years.

The second aspect of political interference is the creation of new departments or services in a hospital already in existence. Sometimes this is done to acknowledge help received from some professional; or else to return his friendship by offering him the possibility of becoming head of department in a public hospital, a post highly coveted by doctors.

No one denies the usefulness of creating new departments or sections in hospitals when this is justified by new advances in medicine or hospital care. But the setting-up of departments which are often only a duplication of existing ones, signifies a grave danger for the administration of the centre. This affects the whole balance of the hospital and entails heavy expenses which influence the economy of the institution.

Lastly, there is nothing more fearful for those responsible for the good running of a country's hospitals than the arbitrary appointment by politicians of non-qualified administrators and managers; thus, from one day to the next we find completely untrained people in charge of a hospital's administration. This danger is far greater in countries where there are no training courses in hospital administration; since there is no diploma to be shown, any official of a department or body belonging to the hospital can be appointed as manager or administrator.

I have given you a very schematic idea of how, in my opinion, politics can interfere with hospital administration. Those in high places who have sufficient moral fibre and sense of duty to oppose pressure of this kind are really worthy of admiration.

Appointment of managers. Our modern Hospitals Law—dated 1962—stipulates that hospitals controlled by the Central Co-ordination Committee shall appoint managers who, should they be doctors, shall not carry out any treatment in the centres.

For the first time in Spain this clause breaks with the classical dual-personality scheme of medical director and administrator, thus instituting the figure of manager as the highest authority in the hospital.

As far as the appointment is concerned, our legislation is eclectic and offers the possibility of the manager being a doctor or not.

The Hospitals Law has not yet been applied and no manager has yet been appointed. We are at this moment on the horns of an ever-growing dilemma—what attitude to adopt in a theme so subject to controversy as who should be the right person to administer a hospital: a doctor or a non-doctor.

Although in principle we believe that the qualities which make a good hospital manager are more personal than of professional origin, we must acknowledge that in Spain and other latin countries it is better for the duties of manager to be assumed by a doctor. Now, it is indisputable that in such circumstances the appointed man should not give any professional medical services in the centre; it is never advisable for one to take part in an institution and be its judge at the same time.

There is also no doubt as to the importance of doctors engaged in hospital administration receiving special training to enable them to carry out effectively the multiple facets of administration, economy and law which arise in a modern hospital; irrespective of the fact that they should at all times be able to call upon assistant administrators specialised in these various matters.

No decision has yet been taken in this matter in our country. However, we hope that the idea of appointing managers who are doctors will prevail, especially when experience gained with the full-time directors of Social Security hospitals who, in a certain measure, are comparable to the managers, has been fully satisfactory.

Technical and economic problems. Technical and economic problems arising for those in charge of hospital administration in Spain are innumerable and not very different from problems in other countries.

The economic outlook is very different for the administrator of a Social Security hospital than for other public hospitals.

The Social Security always has plenty of available funds for medical services, but there are certain difficulties in obtaining the necessary credits for the repair and maintenance of buildings.

In other public hospitals, credits granted by the State and local corporations are extremely miserable and do not keep sufficient pace with the constant increase in the cost of living. Furthermore, these hospitals are not sufficiently good to attract the better-off upper classes who could pay for services received

and increase hospital takings, so here we have the economic vicious circle of the institutions which barely scrape a precarious existence.

The only exceptions in this situation are the public hospitals run in conjunction with the Social Security which provides the necessary economic aid to maintain their material standards.

Our outlook for the future of Spanish public hospitals not run under the Social Security is extremely pessimistic, and we do not believe a solution can be found until we succeed in creating in Spain a National Health Service which will unify the different hospital networks, condemning those centres which do not come up to minimum standards.

Compared with the alarming problem of economics, technical problems are perhaps not quite so important, but we might enumerate the following:

(*a*) *Mechanisation.* With the appearance on the market of the whole range of electronic data processing equipment and the possibility of applying the punched card system to hospital statistics and accounts data, we begin to realise the usefulness of introducing them in hospitals here in Spain. The system has not yet been adopted in any hospital because of the excessive cost of computers, but taking advantage of the fact that Spanish Social Security has mechanised its central services in the Instituto Nacional de Previsión by installing giant computers, we are thinking of starting a mechanisation scheme for hospital data in the Health Residences, and we even venture to hope that this can be achieved by a tele-process transmitting data to centrally located processing equipment.

We do not think the punched card system could be used for isolated hospitals unless they federate amongst themselves, and the computers and machines are installed in regional co-ordination centres dependent on the Central Committee for Hospital Co-ordination.

(*b*) *Acquisition of new apparatus and equipment.* In times such as these when we have witnessed the almost complete disappearance of conventional therapy and apparatus and its replacement by new methods and equipment such as cobalt bombs and

electron accelerators, the selection of material and the right time to acquire it provides hospital administrators with increasing problems and responsibility. The same applies to X-ray diagnosis, where conventional equipment will soon have to give way to television intensifiers. the conventional plate being replaced by a moving film. The increasing price of these new machines puts a heavy burden on hospital economy, and the same can be said for all types of new equipment for methods of diagnosis and treatment.

(*c*) No less important are the staff problems which are beginning to make themselves felt in Spain. As you will know, Spanish workers have been emigrating during recent years to other Western European countries, and this has meant a shortage of auxiliary, day and subordinate staff in hospitals. Administrators are thus faced with these problems of ever increasing gravity.

Education and training of hospital administration staff. This is without doubt the most vital question we are faced with in the field of hospital administration in Spain.

Our Hospitals Law states expressly that the Secretariat of the Central Committee for Hospital Co-ordination shall organise training courses for hospital managers.

As mentioned, no course of this type has yet been organised in our country, and hospital administrative personnel have hitherto learned from practical experience in carrying out their duties. To this anomalous circumstance I believe we owe our great backwardness in hospital administration in comparison with other countries.

This year we are organising the first manager training course in close collaboration with the O.I.S.S. (Iberoamerican Organisation of Social Security). We hope this course will be sponsored by the King Edward's Hospital Fund and the International Hospital Federation.

We expect the course to begin in September and last two and a half months. Fifteen places will be reserved for Spaniards and some ten for Latin Americans, those already employed in hospitals having priority. Candidates will be required to produce

an official university diploma and we hope to train people to be versatile directors who can take over the management of public hospitals independently of the body or class to which they belong.

The first part of the course, lasting approximately a month and a half, will take place in Madrid, and will consist of theoretical and practical work in the hospitals there. The remaining month will be spent gaining practical experience in various hospitals all over the country, such as the Asturias General Hospital in Oviedo, the Navarra Post-Graduate General Study School and Clinic, and in a health residence belonging to the Health Insurance.

Lastly, students will spend one week in the school of public administration officers, in Alcalá de Henares.

We should deem it a great honour if experts from abroad could give some of the lectures during the course, and we intend to invite them specially with this in mind.

SWITZERLAND

by

Dr. (iur) F. KOHLER

I. INTRODUCTION

1. The foreign-speaking writer of an exposé whose subject has been propounded to him is faced with the basic question, whether he really knows what one is expecting from him, whether he has correctly understood the questions and the theme to be dealt with. This is the reason why I have consulted the Concise Oxford Dictionary, in order to be absolutely certain about the sense of the word 'context', as I had some doubts concerning the meaning of this expression. This dictionary says as follows: 'parts that precede or follow a passage and fix its meaning', which, I confess, did not entirely satisfy me. The famous French dictionary 'Larousse' gives practically the same definition of the word 'le contexte'. On the other hand in my good old school dictionary English/German the word 'context' is referred to as 'Zusammenhang', which simply means 'connexion'.

As this linguistic exercise was not of great help to me, I made up my mind to stick to the notion of 'connexion'. Therefore, I think that my task consists in trying to explain *the reasons which have led to changes in hospital administration, the nature of these changes and the problems they are raising.* This gives us the connexion of the facts, this 'context of hospital administration', which is the subject of this Second European Conference.

2. The title contains the word 'research'—a magic, modern expression of special significance in our technical and scientific era. I am somewhat ashamed to say that—as I had to state at last year's Conference—we in Switzerland do very little or no research at all in the field of hospital administration, or, to be more precise: Each hospital is at liberty to do its own research or to have it done by specialised institutions (for instance work studies).

In order to get a better understanding of this fact—which doesn't actually trouble me very much, as the standard of our

hospital administration can compete with that of many other countries—I have to remind you of what I said last year in London about 'Swiss hospitals, their scope and organisation with special reference to the background of our hospital administration'. It can't be expected that all of you still remember the papers presented at last year's conference.

3. May I summarise as follows:

—Hospital services are ruled by cantonal and communal law.

—There is no regional planning for the whole territory of Switzerland.

—Our country is the land of small and middle-sized hospitals. There exist few hospitals exceeding 1,000 beds.

—The majority of hospitals, and particularly of hospital beds, is the property of the cantons and the communes.

—There is no training scheme for hospital administrators. The Swiss Hospital Federation (VESKA) and two of the universities organise courses, but they are of a short duration only.

—A few months ago the VESKA extended its activity by building up a documentation and information department which, in a distant future, might perhaps become the basis of a 'Research Department'. We don't know institutions such as 'Deutsches Krankenhaus-Institut' or 'Nuffield Provincial Hospitals Trust' in Switzerland, and our universities are not yet interested in the problem of teaching hospital administration.

—This is the background and hence it follows, that my exposé cannot be considered as an official and representative Swiss conception. It is only the *very personal statement* of an administrator who has gained his experience by managing a university hospital of more than 1,100 beds.

II. THE FACTORS LEADING TO A CHANGE IN HOSPITAL ADMINISTRATION

I should like to enumerate the reasons which, since the 2nd World War and—with increasing speed—especially during the

last 5 to 10 years, induce or even compel those who are responsible for hospital administration, to adapt continuously their organisation to the new situation. Speaking among experts I can be brief, basing this short review on a typically Swiss situation:

—The patriarchally managed general hospital for people of modest means has evolved towards a health centre for the whole population, the importance of out-patient treatment increasing constantly. The hospital of some importance now definitely becomes what the Americans call 'big business'.

—The tremendous progress of medicine requires a constant adaptation to absolutely new situations.

—The costs of hospital-medicine (not to speak of medical research) attain astronomic figures.

—The lack of qualified and particularly of specialised staff is increasing.

—The number of persons whose choice of a hospital profession is based on a real vocation (nuns, deaconesses) has decreased. Frequent mutations in the staff become the rule.

—The working-time is subject to constant reductions, the management of a hospital becomes businesslike and hectic, with all the risk of impersonality.

—The number of foreign and foreign-speaking employees is increasing.

—The overheated economic conjuncture and the industrial boom lead to excessive delays in the delivery of goods of all sorts and of handicraft-work.

—The claims and pretensions on the part of the patient and his family in respect of medicine and hospital care are increasing.

III. THE CHANGE IN HOSPITAL ADMINISTRATION AND ITS PROBLEMS

The main problems of modern hospital administration are the result of the above-mentioned changes in hospital services and, generally speaking, of the economic and social background of my country. Indeed, there are so many problems, that—in order to respect the wish of writing 'a paper not exceeding 1,500 words in length', I have to make a strong selection.

1. Since 1950 I have been working for my hospital (first as a part-time occupation and since 1954 as a full-time director) and during these 14 years I have been able to observe, in a most striking manner, the amazing alteration from a charity-hospital with practically equilibrated accounts to the general health-centre with tremendous financial losses and an immense increase of staff. At the same time the whole administrative structure has been totally reorganised. The patriarchal system, where even minute questions had to pass the director's office, has been replaced by a modern organisation. The hospital having become 'big business' has to make use *'cum grano salis'* of the industrial methods and principles of organisation. May I remind you of the organisation-scheme concerning the direction of the Inselspital, reprinted in my paper of 1962 and emphasise that one of the main problems in the modern administration of a large hospital consists in enforcing the following principles:

—Clear separation of the competences

—Observance of the official way (voie de service)

—Constant information of the heads of the different departments about the general policy

—Organisation of the substitution

—Maintaining of contacts among the different departments

The director will, above all, endeavour to

—delegate responsibilities

—give full liberty of action to the subordinates within the limits of general instructions, this without losing the general survey.

2. *The increasing costs*

The problem of increasing costs is the nightmare of every hospital administrator. Yet he should not allow it to become the dominating and overshadowing rule of all his decisions. He must tackle all these problems with utmost energy, always bearing in mind that the front (i.e. the doctors, the nurses and their collaborators) cannot fight without ammunition. The following points seem especially important to me:

(*a*) *Centralisation of purchase within the hospital and, if possible, including other hospitals of the same region.*

This regional centralisation meets with nearly invincible difficulties owing to the federative structure of our country and the communal autonomy. In the different hospitals, however, centralised purchase based on business principles (price and quality) and the central supply departments are the rule, together with a standardisation of goods (syringes, linen, etc.).

(*b*) *Education of the staff to cost-consciousness*, whereby I especially think of doctors and nurses. This is not an easy thing to do and I am convinced that medical and nursing schools should take greater care of this problem.

(*c*) *The use of a modern bookkeeping and accounting system*, enabling an immediate delivery of interim-statements so that the administrator can continuously compare the costs with the budget. The creation of a departmentalisation of overheads, making possible thorough analyses of costs and management.

(*d*) Reduction of the staff expenditures by *centralisation and mechanisation*, whereby we all have to be conscious of the limits of these methods in the hospital.

Good progress has been made in the following fields:

—Creation of muncipal distant-heating-plants, generally in connection with rubbish-incineration, the hospitals being the main consumers (Basle, Berne, Lausanne, Zurich).

—Central sterile department.

—Application of the newest bookkeeping machines with punched cards and electronic data processing systems (to be used also for medical departments).

—Central bed cleaning department.

—Reproduction of all the patient's documents for administration and medical departments in the reception office.

The following realisations are somewhat delayed for different reasons:

—The regional central laundry (Basle, Zurich).

—The interphone system between patient and nurse.

—The pneumatic tube system.

(*e*) In connection with the costs I would like to mention the following *catering problems* prevailing in Switzerland:

—The unexpected success of the 'tray-system' for food delivery to the wards and the creation of a central dish-washing area in order to free nurses and staff of the wards.

—The self-service restaurant for the staff.

—The installation of extended refrigerator and deep-freezing stores.

Experiments with prefabricated meals particularly for patients living on diet have not yet proved to be very satisfactory.

(*f*) In the *building-sector* a constant control of the building process and a regular control of the means already spent are leading principles. The idea of a small, flexible and active board of construction being really able to govern the whole building proceedings, has become familiar to most hospital authorities. The person or the limited number of persons who are authorised to give instructions concerning additions or alterations on the building site must be carefully chosen. This is the only way to avoid very disagreeable surprises when the final building accounts are received.

(*g*) As the taxpayers of the cantons and communes have, finally, to meet the high building and running costs, *public relations* become more and more important. The population has to be kept informed about the modern hospital problems and their financial consequences by guided tours and by communiqués to the press.

3. *Problems of staffing*

Here also the administrator must keep well in mind the main tasks in spite of the overwhelming staffing problems; a thing which is sooner said than done in Switzerland. Many of the points dealt with in connection with the cost problem aim at the relief and economy of staff. I won't repeat them here, especially

as the staffing problems are so manifold that I have to confine myself to a few questions only:

(*a*) *Propaganda* for the recruiting of staff has become more and more important. The VESKA has edited a propaganda publication about the numerous hospital professions, and the Swiss Red Cross, responsible throughout Switzerland for the training of the nursing professions, does very good work by way of lectures, films and exhibitions.

In various hospitals the organisation of lectures and information tours for young girls facing the choice of a profession, has proved to be very positive.

(*b*) It seems, that the very best remedy against the lack of specialised staff consists in the creation of *education centres* in the hospital itself. From the traditional nursing-school up to the training of dietary cooks the hospitals of some importance dispose nowadays of all kinds of training possibilities. But this again raises new problems of staffing, finance and accommodation.

(*c*) *The training of the leading staff* is of the same importance. *Instruction courses* for the nursing staff are run by the Swiss Red Cross at two excellent schools in Zurich and Lausanne. Within the hospitals the organisation of such courses for all employees in a leading position is still at the beginning, but a few very promising experiments have been made.

(*d*) *The extremely high number of foreign employees*, as well as the constant change of personnel which concerns especially this category of persons, has placed Swiss hospitals in an entirely new situation:

—The leading staff has to learn foreign languages, such as Italian, Spanish and Greek, and the employees have to get acquainted with the basic principles of the country-language (German or French).

—The introduction of the newly-appointed personnel is of great importance. Several hospitals have special instructors and tutors to do this work.

—The care for the social welfare of the personnel has become nearly as important as the social welfare of the patients.

—The lodging problem. Actually no hospital is built or enlarged in Switzerland without the necessary accommodation for staff being planned and built at the same time.

(*e*) Last but not least let us mention the burning salary problems. The hospitals must endeavour not to lose the competition with the salaries paid by industry. The rather inflexible systems of the cantonal and communal salary scales which had been established in view of an administration with a hierarchy of officers entitled to a pension, is not very satisfactory for hospitals, especially with regard to the constant change of foreign staff. Some hospitals have, therefore, after thorough evaluation of the different employments, introduced new scales of salary, adapted to the skill and the responsibility.

In order to be complete, work studies should be mentioned here. We in Switzerland are still far from their systematic application in hospital life.

4. *Other problems*

(*a*) The catastrophic narrow pass on the labour market has led the hospitals to employ a large staff of full-time workmen and technicians, in order to do the maintenance work and to carry out constructions of small extent. This is the only way to secure the constant readiness of all hospital departments, which often is decisive for life or death of a patient. Still, long delays in delivery and execution of work make the life of all those working in the hospital very difficult, particularly in respect of new buildings.

(*b*) Owing to the increasing claims and pretensions of the patients and their family, spoiled by a constant rise of the standard of living, the hospital administration has to face new problems. It is evident that the patient, who is generally in low spirits, should be given special attention when he enters the hospital (amiable reception clerks, short waiting periods in the out-patient department). But this is not enough: The Swiss patient becomes more and more demanding where the quality of food is concerned and has great difficulty in feeling homely in the old big wards with more than 8 beds. Therefore, great care

must be given to the catering problem and the renewing and rebuilding of old hospitals.

Another and quite new problem arises from the pseudo-medical knowledge of the public, which is a 'blessing' of the sensation press! The patient and his family become more and more critical towards the doctors and the treatment, and this is one of the reasons why claims of liability against the hospital based on pretended faulty or inadequate treatments are increasing considerably. This will induce the hospital administrations to re-examine their liability insurance policies, in order to have sufficient legal protection and a strong financial security.

IV. CONCLUSIONS

The world in which we live is dominated by materialism and and extraordinary progress of technique and science. The peculiar world of hospitals is deeply affected by this evolution. In order to keep pace with these circumstances, the persons to whom the direction of a hospital is entrusted, have to be inventive and dynamic. This applies especially to hospitals belonging to public authorities, because there the danger to behave and act as 'public administration' in the bad sense of the word, is considerably higher than in the management of a private or charity hospital. The French would call this 'the danger of becoming M. le Bureau'. If the administrator or the director is a non-medical man (I don't want to use the ugly word 'layman') he has, more than in former days, to get well acquainted with problems of social medicine and medical technique, without behaving like a neglected medical genius. On the other hand he is certainly entitled to expect the hospital doctor to be really interested—more than in former days—in administrative, financial, staffing, building and above all in human problems of hospital administration.

UNITED KINGDOM

by

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It is a great responsibility to give the first paper at this conference before so distinguished and so experienced an audience; and I am acutely conscious of the danger that what I have to say will be too elementary, and perhaps too insular, to be of general interest to the skilled representatives of other countries. There are other sessions which I personally would much rather attend than this one—indeed I can't think of any other session of which that is not true.

Some of the problems which press most heavily on us in this country arise, perhaps, from conditions which are peculiar to this country—the way our National Health Service is organised and financed—but I daresay that in other countries the same sort of problems do arise, though they may present themselves in different forms and may be amenable to different techniques of solution.

I need not spend much time in describing the constitutional forms of the hospital service in this country, for they are well documented; and anyone of you who wants to know about them already does so. Let me just recapitulate briefly, simply in order to provide some points of reference for the problems I am going to discuss. I shall do so in relation to England and Wales, because that is the extent of my responsibility, Scot though I am. The position in Scotland is broadly the same.

The Minister of Health owns all the public hospitals and he is responsible to Parliament for providing the hospital service. This has been true only since 1948. Before then the hospitals were provided either by local authorities, supported from central and local taxes, or by voluntary effort. The pattern was quite haphazard, the standards very uneven, the buildings often antique, ill-sited or overcrowded or all three. The whole system cried aloud for modernisation and reform, and in the circum-

stances of this country some form of nationalisation was undoubtedly the only way of achieving it.

In 1948 therefore the State took over a mixed bag of capital equipment, of staff and of traditions—including good, bad and indifferent in each case—and today, only 16 years later, much from before 1948 still remains in being, a source both of strength and of weakness.

The Minister carries out his duty of providing a hospital service through hospital boards, which are appointed by him, act as his agents and are subject to his directions.

There are 15 regional hospital boards, which are responsible for the planning and development of the hospitals service in their regions. There are over 2,400 of these hospitals and their day-to-day management is delegated to hospital management committees each of which looks after a group of hospitals. In other words there is a three-tier system—360 committees, working under 15 regional boards, who are responsible to the Minister.

But the teaching hospitals are managed separately. A hundred and forty hospitals are grouped under 36 boards of governors who administer them direct—a two-tier system. (In Scotland the regional boards are responsible for the teaching hospitals as well as the others, and that is the main administrative difference from England and Wales.)

All the members of the boards and committees are unpaid part-time volunteers, and they include politicians from both sides of the House of Commons. The man who would probably be Minister of Health should the party now in opposition ever be returned to power is a member of one of the regional hospital boards. So the Minister's chief parliamentary opponent is a member of a body which is the Minister's agent and takes his orders—one of those curious and illogical anomalies in which we in Britain take a perhaps perverse pride.

All hospital authorities have some private funds at their disposal, derived from legacies, gifts and so on. But the vast bulk of the expenditure, both current and capital, is borne by the national Exchequer. It amounts to about £600m. a year, that is

roughly £12 per head of the population, and hospital treatment is free unless the patient chooses to pay for private accommodation. It is the Ministry of Health's responsibility to allocate appropriate funds from the Exchequer to each of the hospital boards.

Hospital authorities employ their own staff. Their terms and conditions of service are laid down from the centre, but none of them are Government officials. The teaching hospital boards employ all the staff at their hospitals. The regional boards employ the staff they need for their own planning and controlling functions and they also appoint and pay the senior medical and dental staff at the hospitals in their regions; but all the other staff at those hospitals—junior doctors, administrators, nurses, technical, domestic and maintenance staff—are appointed and employed by the hospital management committees.

The hospital authorities have no control over the health services which are given outside hospitals. The general medical and dental practitioners who do all diagnosis and treatment which does not need to be done in hospital are organised quite separately. The family doctor—which is the term we use for the general medical practitioner when we are speaking favourably about him—covers about 90% of all medical episodes. Certain environmental, preventive, domiciliary and clinic services are separate again. They are run by the local authorities elected in each local government area. So the National Health Service is in three parts.

Now in that very brief synopsis I have deliberately included a number of sentences which I can pick out in order to illustrate the principal problems which beset us.

First, to take the last sentence of all, there is the problem of co-ordination which arises between the three parts of the National Health Service—the hospitals, the general practitioners and the local authority services. It arises particularly acutely in maternity, mental health and geriatrics, for in these fields the patient may have to make use at different times of the help provided by all three parts of the service. This is a favourite topic of discussion among all who are interested in the working

of the National Health Service, and it will be interesting to learn during this week how far other countries are faced with the same or a similar problem and if so how they surmount it. Some people in this country hold that it cannot be surmounted, that we shall never get all parts of the service working in harmonious partnership together, without a radical change in the administrative system, perhaps by putting all three parts of the service under a single authority in each area or region of the country. Any such solution would meet formidable difficulties; there is a different history behind the evolution of each of the three parts, and considerable political issues would arise both locally and nationally; there would also be financial and institutional problems to which it would not be easy to find acceptable solutions. I don't think that anyone has yet thought these problems out at all thoroughly.

Meanwhile co-ordination is being steadily improved by joint committees and—more important—by common sense, and though I would not rule out for all time some drastic reorganisation I am not myself persuaded that we cannot provide a satisfactory service without it.

Nevertheless there is no doubt that we have a considerable problem on our hands, which will become more acute as the hospital building programme develops, in getting a proper working relationship between the family doctor and his local hospital, so as to avoid the professional isolation which is often felt as a principal disadvantage of the British system of general medical practice. The general practitioner can make use of the diagnostic facilities, radiology and pathology available at the hospital: he can, where appropriate, treat his patients in hospital: he can be given a part-time appointment as a member of the hospital's general clinical staff: and he can keep his knowledge up to date by use of the hospital library, by clinical conferences, and various forms of refresher courses organised by the hospital. There is nothing in our present system to prevent development along these lines. An important report towards the end of last year gave general encouragement to such ideas and the Health Ministers have just appointed a new body to work over the recommendations of that report and translate them into action.

That is the first big problem I want to mention.

Then there is the physical condition of our hospitals many of which are far too old. We have a big re-building programme in hand. It is not that we have too few beds in the country as a whole, though many of them are of the wrong sort and in the wrong places. Our programme does not aim primarily at an increase in quantity but at an improvement in quality: it is a programme of modernisation, which will take many years to complete—indeed it will probably never be complete. We have tried to set ourselves a programme for ten years ahead and we revise it every year. The programme is still growing and it is not too easy to fit it in with all the other demands which are being made on the national Exchequer and on the capacity of the building industry.

The hospital boards are responsible for planning the buildings and letting the contracts, and they also have the very difficult task of proposing, within a limited financial programme, which projects in their regions are to have priority over others. The task for the Ministry, apart from finding the money, is to give general guidance on planning and design and to approve the bigger projects as they mature. We have put a lot of effort into this and we have issued, and are still issuing, a great deal of technical advice. The aim is to ensure that each new project shall take advantage of all the experience gained from its predecessors and shall itself include if possible some new feature which will be of value to the rest of the programme. We have done all we can to learn from the experience of other countries, on both sides of the Atlantic.

I think it can be said that this problem of capital redevelopment, simultaneously catching up with the past and reaching out towards the future, is the dominant problem of the hospital service, at any rate in many parts of the country. I could easily spend the rest of my time discussing it, and I could say as much again about hospital equipment, but Mr. Tatton Brown, our Chief Architect, will be covering many aspects of hospital building in his talk on Thursday evening, and I must pass on to other subjects.

The next problem is one that is common to all fields of

administration where a central authority is working through the agency of a large number of subordinate bodies which have a certain degree of local independence—that is, how closely is the central authority—the Ministry of Health in our case—to exercise its control? You will remember that we have about 400 separate hospital authorities. Is everything to be laid down from the Ministry and, if so, how is the Ministry to equip itself for this task? If the local bodies are left with no discretion their enthusiasm will wane and their talents will be wasted: if they are left with too much there will probably be a waste of public money and an indefensible disparity of standards. We try to steer a middle course. We have an elaborate system of independent advisory bodies and we keep in very close touch, formally and informally, with the hospital boards. A lot of guidance on an enormous variety of subjects is evolved with their help. I am not here speaking of clinical matters—I don't think anyone can lay down rules about how doctors are to treat their patients—nor about financial and staffing matters on which of course precise rules have to be laid down, but about general matters of organisation and administration: how to reduce waiting lists, improve out-patient departments and accident services, catering and cleaning, admission and discharge procedures and so on. We also stimulate and finance a lot of operational studies, research and experiment by university departments, by individual hospital authorities or by groups drawn from them, and we try to assess the results and make them available for all concerned. But a great deal of discretion is left in the hands of the boards and committees and it is sometimes said that we ought to have a stronger system of enforcement. We work by way of 'guidance' and 'advice'. Ought we to speak more often in terms of 'orders' or 'instructions'? Or ought we to have a formal system of inspection so as to inform ourselves in detail about how far all the hospitals are complying with the standards we suggest and force them, perhaps by financial sanctions, to fall into line? This, I think, is a possible development but I doubt if it will happen in my time.

Now finance. I said, you will remember, that virtually all the money comes from the Exchequer and that the Ministry has to allocate it among the hospital authorities. This must surely be

a growing problem for hospital administrations in all countries, however they may be organised. Every year medical science makes new advances. They may save life but they seldom save money. Surely there is an obligation to provide one's fellow citizens with the best service, the most advanced methods of care and of healing, which have yet been devised. At what point can one say: 'We are not going to provide this possibility of cure or prevention because it is very expensive and the country cannot afford it'? And yet no nation has a bottomless purse: there are other things to be provided as well as hospital services: and if full financial priority is given to elaborate new advances which benefit only a few serious cases, is there not a danger of starving the less glamorous, more everyday, hospital services which benefit thousands and indeed millions of patients every year?

Can anyone say, in terms of finance, what are the real 'needs' of a hospital service? Can any country say that at the present time their services are adequate, or that they are known to fall short by an amount that can be exactly measured? If so, the financial problem is simply to add whatever is needed to bring them to the right standard, and then to maintain that standard year by year as knowledge grows, as the population increases, and as prices rise.

I do not think we know in this country what our true needs are, though we are fumbling towards more accurate knowledge. So our financial provision is not really scientifically based. That being so, how can we decide on the changes needed in financial provision between one year and another, between one part of the country and another?

There is only one honest answer to this question. We can't do it properly. Every year we make a shot at it and I am sure that every year we get it wrong, though less wrong, I hope, as the years pass. We have to make guesses and use subjective judgments and pretend that in that way we are exercising administrative flair. It will be very interesting to learn how other countries cope with this very fundamental and very difficult problem.

I have confessed that we can't do it properly. But I would go on to assert that we are trying. We are conducting a number of

studies in depth into a wide variety of matters such as standards of nurse staffing, standards of food and provisions, hospital transport and so on, all designed to help us answer the question, 'what in the light of experience is really needed in an efficiently run service?' We have also instituted a system whereby we invite hospital authorities to think several years ahead, within the limits of a fairly stringent provisional financial ration for their running costs (this is separate from the planning of capital finance). When we get the results we discuss them in some detail with every hospital board separately. This should compel the Boards to think hard about what their real needs are and which developments are more urgent than others. In indicating how they would lay out the limited sums on which the exercise is based they also indicate which are the most pressing needs for which no room can be found. This system is not yet fully developed but it is enabling us not only to reach a better informed view about what the real needs are, but also to frame a more convincing case for that view.

Still in the realm of finance, there is a rather different and scarcely less important problem which must be felt in all countries as well as our own. Having decided, however imperfectly, what money is to be made available, what steps can we take to ensure that we get proper value for it? As I have said, the sums involved are very substantial—£600m. is not very far short of 10% of the national budget—so the taxpayer as well as the perfectionist administrator is well entitled to feel some concern on this point. Here again I do not believe there is any short cut. We have to study in detail the service which is provided and the methods by which it is provided; we try to collect information about the most efficient practices and encourage a steady flow of new ideas both from our own staff and from the hospital authorities themselves. In that way we assemble knowledge about economical methods which can be shown to be feasible in practice and we attempt, by circulating this information, to bring the general standard up to the standard of the best authorities. I think too that for this purpose it is not altogether a bad thing if hospital authorities are kept on a fairly tight rein, because if they want to do rather more than is covered by the money allotted to them they have a strong incentive to elimi-

nate extravagancies and inefficiencies within their existing budgets which we ourselves could never find out about from the centre.

I would like to add a brief word about staff. You will remember that I said there are about 400 separate employing authorities in our hospital service. The total staff they employ is about half a million. The scales of pay for the different grades are common throughout the country and are laid down from the centre after negotiation and if necessary arbitration, and no hospital is allowed to pay either more or less than the authorised scale. That is clearly necessary in a national service. But in some respects it is not a single service at all, it is 400 separate services. This does not matter very much for the subordinate staff of ancillary, domestic and industrial employees. But for staff who are looking to the hospital service for a career, there is some danger that independent and unco-ordinated action by 400 different employing authorities will lead to inequalities of recruitment, training and promotion and leave a good man frustrated in a minor job with insufficient prospect of realising his full potentialities.

For administrative and clerical staff, we have just had the report of an important committee which will, I hope, carry much further the efforts which have hitherto been made to avoid these dangers. It will not remove all independence of action from the employing authorities but it will introduce better co-ordination and enable staff to be moved from one authority to another on something like a planned basis to ensure that good men get the variety of experience, and the enhancement of responsibility, which is as much in the interests of the service as it is of themselves.

I have reached my last point—it is implicit in much that I have already said. The essence of hospital administration, I humbly suggest, is that it should always be looking beyond the immediate day-to-day problems to the future development of the service—taking account not only of what we can foresee but of what we cannot foresee. The problems of day-to-day administration are difficult enough in all conscience but no hospital administration is doing its job if it confines its attention to these.

That is one reason why a conference like this is so valuable. Each country is, in some respects, a bit ahead of others and in some respects a bit behind, and so although our systems of administration show wide, and sometimes very wide differences, we all have something to learn from each other. It is a conference like this which helps us to remember not only how much we have done and how much we are doing but also how much we have still to do.

UNITED KINGDOM

REDUCING THE COST OF HOSPITAL BUILDING

by

WILLIAM TATTON BROWN, A.R.I.B.A.
Chief Architect, Ministry of Health

A. *The Problem*

In every country in the world the cost of hospital building is going up. Those countries which have hospitals built by a previous generation are having to replace them with more and more expensive buildings as the demands of medical science become more exacting. In the under-developed countries the population explosion inflates the demand for hospital beds.

At the same time, the building industry is overloaded. It has been estimated that more demands will be made on the rising generation of architects during the course of their lifetime, than have ever been made on all architects since recorded time. Within 20 years of the opening of the channel tunnel, there will be a continuous built-up area 50 kilometers wide from Glasgow to Athens! Builders and architects, we have to remember, are in a seller's market. They will pick and choose what they build. Preference will be given to schemes in which they can turn over their money fastest. Hospitals which take longer to build and are subject to change and delay in design and during the course of construction, will therefore become more and more expensive.

B. *How to make hospital building more attractive so that the building industry can provide hospitals at a price we can afford to pay.*

Four steps are necessary:

(1) Rationalise
(2) Standardise
(3) Industrialise
(4) Humanise

In the United Kingdom the Hospital Building Programme has been preceded by a school building programme of almost the

same magnitude. We can therefore take some useful lessons from the educationists. Before starting their programme they rationalised the needs in terms of numbers of school places that would be required in the ensuing 10 years. (Ten-Year Plan). They then started a recruiting and training campaign for the necessary lay and professional staff. Finally they allocated resources in terms of capital and manpower. School building was thought of in terms of programmes not of individual buildings.

If we are to apply these lessons to hospitals, we must first of all rationalise the architects brief. We must set down a clear statement of policy, describing the service which we propose to provide whether in the form of district general hospitals, regional laundries, accident centres, out-patient departments or maternity units. We must then search for the highest common factor within each of these services. We must look for interchangeable wards which can be used for medical or surgical patients: interchangeable consultants' suites in out-patients department: interchangeable laboratories, etc. A massive simplification must take place based on an analysis of the activities which take place, with the object of reducing the number of different sized spaces which have to be provided in a hospital. Not only will this make the construction process simpler, but it will make the building more versatile in use.

C. *Standardisation and Industrialisation*

The best example of successful standardisation is of course the motor car. The modern car, such as the four-door Renault is a brilliant piece of versatile designing. On week-days it can act as a four person saloon car. At week-ends by folding down the back seat it becomes a station wagon for carrying crates of beer or the lawn mower. On Sundays it can take the family on a picnic and by undoing four butterfly screws the seats can be taken out and two people can sleep inside. The adaptability of this car has led to a mass demand which in turn justifies bulk ordering of components, continuous production runs in the factory and significant price reduction to the consumer. This is precisely what we aim to produce in hospital building.

First we standardise dimensions on a common module 4 inches: 10 centimetres. This has already won international acceptance in the O.E.E.C. and E.P.A. projects. Then we adopt a planning grid of 60 centimetres or 2 feet based on the international module. All room sizes are then multiples of this planning dimension and every hospital department is made up of a number of components such as doors, windows, partitions, ceiling panels etc. which are multiples of these dimensions. In this way the user is given a wide variety of choice from a limited range of components which ensure for the manufacturer long production runs. Experience in the school building field has shown that this can lead to reduction of the order of 20% on storage units, cupboards etc., on ceiling and lighting fittings and on lifts. Floor finishes, doors, partitions, sanitary fittings and windows can also produce reductions varying from 8–13 per cent. But much more significant is the degree of repetition on the site and the speed of building which results from this.

D. *Humanise*

The adoption of a 60 centimetre: 2 feet planning grid internationally would enable all hospitals throughout the world to make use of common components. These components could be developed in any country from local materials and this would lead to international competition. Unlike *standard buildings* which freeze design and ossify hospital planning, *standard components* enable the maximum advantage to be taken of technical developments because the components are interchangeable. Similarly the plan shapes which are produced on the 'highest common factor' principle give great versatility to the building. All the new hospitals being planned in the United Kingdom are based on these principles. Contrary to expectations, it has been found that more skill not less is required from the designer. This is because of the need to humanise the environment so that the users; the doctor, the nurse and the patient, are able to take advantage of industrialisation without being subjected to monotonous or mechanistic impressions usually associated with prefabricated buildings. Successful designs have proved that this approach to hospital building is likely to achieve the target of high quality buildings in large numbers at a price that we can all afford.

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