Middle Articles

CONTEMPORARY THEMES

Cogwheel: A Physician's View of a Local Version

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Summary: A preliminary experiment in the divisional system of medical administration has been started in a large regional hospital in the Metropolitan area. This has involved considerable local interpretation of the original proposals in the Joint Working Party's report. The chief benefits of this version as tried so far have been a more effective use of doctors' time at all levels, a more rapid carrying out of practical suggestions, and closer co-operation between different departments. Those who give first administrative place to streamlined efficiency have seen the absence of an authoritative executive committee as the chief defect to date. The main fault in the eyes of those who emphasize the fundamental importance of participation has been the delay in the involvement of the junior medical staff.

Introduction

The first report of the Joint Working Party on the Organization of Medical Work in Hospitals,¹ the "cogwheel report," appeared in October 1967. By this time several hospitals had already, on their own initiative, experimented with various forms of reorganization of their medical committees into smaller functional groups, or divisions, in which each member was directly concerned with most of the subjects discussed. For instance, one division would consist of the gynaecologists and obstetricians and others would comprise similar groups such as surgeons, anaesthetists, physicians, and the service departments. The function of each group is the provision of its specialized service, and so the means of provision of medical care, such as beds, may become the responsibility of the whole division. This development seems to have started in the regional hospitals, including several outside the Metropolitan area, possibly because the need to spend committee time more effectively was greatest where the work-load was heaviest.

The starting-point of the "cogwheel report" was the observation that practising doctors could and should improve medical administration, at first in hospitals and then throughout the National Health Service, without waiting for further legislation. This sort of improvement had already been started in some hospitals, notably in Oxford, where the general physicians have shared their beds for many years and where a flourishing divisional system has developed with a strong executive committee.

In the West Middlesex Hospital, a regional hospital with 948 beds, several factors contributed to the development of a divisional organization of the medical committee. Some natural groupings of the consultant staff, such as the laboratory consultants and the anaesthetists, had long been in existence, as in most large hospitals. In 1966 the six physicians and the two paediatricians were about to move from various points

scattered round the hospital into a newly built medical department. They foresaw that this move was likely to be followed by a still steeper rise in the annual patient turnover, and they already felt the need for additional junior medical staff. Increasing numbers of calls on the time of the junior staff were being made by the casualty department, whose staff had been depleted by the change in the F.R.C.S. regulations resolved by the College Council in October 1964 and published in March 1965.² House-physicians were on duty about 77 hours and on call for another 28 hours a week. Payment for holiday locum appointments of housemen and registrars was not then routine. A new emergency procedure for dealing with cardiac arrests throughout the hospital took extra time and disrupted routine work, a five-bed intensive coronary care unit was to be started in the following year, and the excessive hours worked by the junior staff were being progressively reduced.

One or two of the physicians had already suggested that the consultants of the medical wards should meet to discuss these difficulties. The timing of the first meeting was brought a little forward by an additional development. The hospital had taken part in the Hospital Internal Communications Project,³ a social study of staff interdependence and personal relationships inspired by Professor R. W. Revans⁴ and carried out by a consortium of 10 hospitals in the London area. This study involved members of the medical, nursing, and administrative staff in joint discussions of difficulties which affect them all. While this project was under way the physicians decided that the most effective means of supplementing the existing problem-solving machinery would be for the doctors most immediately concerned to meet together for detailed discussion and to ensure subsequent action.

Function and Growth of the Medical Division

Thus it was that the six general physicians met in October 1966 to consider, first, how the work of their junior medical staff could be reorganized to meet the demands of the increased services and also to provide more time for study and leisure. The physician who had most recently suggested the meeting was elected chairman, and I, being the junior consultant, found myself writing the minutes.

This original group of six general physicians gradually grew to incorporate the chest physicians, paediatricians, geriatrician, physician in charge of physical medicine, neurologist, dermatologist, venereologist, and the physician in infectious diseases at the South Middlesex Hospital. The psychiatrists joined and then separated to form their own divisional committee because they found that the problems which concerned them most directly were often different from those which taxed the more "organic" physicians. The chairman of the medical committee was made an ex-officio member and the hospital secretary was also invited and gave much valuable help. He or his deputy subsequently took over the secretarial duties of what

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had now become a fully fledged medical division. Meetings were held as the need arose, usually about once a month, and the minutes were submitted to the regular monthly meetings of the full medical committee, whose subcommittee it had become.

At the first meeting of physicians four major and several minor proposals were discussed and agreed. The four main recommendations concerned the introduction of a form for inpatient notes, for the medical department in the first instance; the installation of mechanical documentation of records; the employment of ward technicians for routine blood-taking on the wards; and, finally, an increase in the establishment of the junior medical staff by two.

Inpatient Notes

The new form for inpatient notes, modified from those already in use in the Hammersmith Hospital, passed through successive draft editions and was finally adopted in March 1969. It provides a useful aide-memoire for the house-physician and saves the registrar's time when he dictates the discharge summary. The standard arrangement of clinical data helps doctors visiting from other wards, whether providing cover at night and week-ends or giving expert opinions, and also makes subsequent reference easier on readmission and for teaching and research. Lastly, it is a move towards the form of admission notes likely to be suitable for computerized medical records.

Mechanical Documentation of Records

Mechanical documentation was already planned by the hospital secretary, but was not installed until April 1969, initially for the outpatient department and then, when medical records staff became available, for inpatients as well. The main reason for the delay was difficulty in recruiting staff to operate the mechanical documentation because of the low salary. Useful help was obtained on this problem by the medical records officer direct from the department of health, who agreed that the experience of the girl in question justified paying her at the top of the scale.

Ward Technicians

The suggestion that technicians should be used to take the routine blood specimens on weekday mornings aroused some debate, particularly with the Ministry of Health, as it then was, who insisted that the word "nurse" should not appear in the advertisement, even though the post was described as designed specifically for people who could offer no more than two or three hours in the morning and who were accordingly considered by the senior nursing staff of the time to be unsuitable for employment as nurses. Within the hospital the physicians, understandably, had to undertake full responsibility for the appointment and training of the ward technicians and for the administration of the system, which was to be considered separately from the already understaffed laboratories. In the event, two years passed in negotiations, and it was not until March 1969 that final agreement was reached, the hospital management committee made the necessary money available, and the ward technicians were appointed. It is interesting that there were 29 applicants, with an age range of 23 to 67. A second chairman had been elected and he administered the service, which has proved to be one of the greatest single benefits for the house-physicians to arise so far from the physicians' committee.

Increase in Medical Staff

Only one of the four original major proposals remained to be put into effect. The suggestions about the new notes, the

mechanical documentation of medical records, and the ward technicians were implemented largely by the joint efforts of the medical and the hospital administrative staff, with the financial backing of the hospital management committee. An increase in the medical staff establishment depended on the agreement of the regional board, who in turn were under pressure from the Ministry, as it was then, not to increase the establishment of junior medical staff in the South-east, where the shortage was less severe than elsewhere.

Nevertheless, there seemed to be a very strong case for an increase, and so several members of the medical division collected more detailed evidence. This was discussed with the principal assistant senior medical officer of the regional board, who attended three of the divisional meetings and made other visits to the hospital for this purpose. The strength of the medical division's case lay in the rapid annual increase in the number of inpatients treated in the medical department, 90 to 95% of whom were admitted as emergencies, the increasing work of intensive coronary care, and the recognition by the regional board that the hospital was carrying an excessive workload. This recognition had already been expressed in their plans to increase by at least 300 the number of beds in another hospital in the group in the first phase of its expansion. This first phase is due to be completed by 1975, and a further 300 beds are to be added later. The board suggested ways of reorganizing the work so as to make more time available where it was most needed. The medical division considered these suggestions impractical and remained convinced of the need for an increase in the medical manpower. At the time of writing the debate continues, with new suggestions being made by both parties in an attempt to reach a practical working compromise.

Shortage of Medical Beds

A recurring theme linked with this problem has been the shortage of beds in the winter months, which seems likely to remain at least until 1975. The mean length of patient stay in the medical wards in the last four complete years has been 18.1, 17.1, 15.4, and 14.9 days, but during the six months to the end of March 1969 more than 100 patients had to be "lodged out" from the medical department to surgical and gynaecological wards to make room for emergency admissions. Other patients were admitted straight to these non-medical wards, so as to avoid having to close the hospital to emergency admissions. The regional board returns for 1968 showed that the number of general medical inpatients treated per bed in West Middlesex Hospital, 24.6, was greater than that in any comparable hospital in the region.

A proposal to invite the smaller hospitals in the group to help by taking suitable patients had already been made by the two consultant members of the hospital management committee, at that time a surgeon and a physician. By the joint efforts of these two doctors and the hospital administrative staff a bed bureau was established in May 1968 providing a mechanism through which the cottage hospitals could function more closely with the main hospital. When the bed bureau had worked through its teething troubles these two consultants turned diplomats and negotiated a working compromise for which both the medical division and the cottage hospitals gave the necessary ground.

Another proposal, to provide some additional medical beds outside the medical department during the winter months, cannot be put into effect without the additional junior medical staff needed to maintain the present rate of growth in the existing service. Moreover, the regional board already realizes that if it provided additional doctors for this purpose it must also find more nurses. A recent temporary reduction in the number of geriatric beds, already too few for the needs of the group, has also been discussed in this context.

On one of his visits to the hospital the principal assistant senior medical officer of the regional board opened a discussion on the care of the young chronic sick. The physician in charge of the physical medicine department offered to accept responsibility for the care of these patients provided that he was given the necessary facilities; but these were not to be made available. The serious absence of a unit to care for these patients remains one of the principal unsolved problems.

Other Problems

At the other end of the scale, the easiest solutions to find have, as usual, been those which cost little or nothing and which can be worked out within the ambit of the hospital itself. At least one surgeon and one physician had on several occasions in the past proposed to the medical committee that a combined book of routine clinical, nursing, and administrative procedures should be written and used on the wards throughout the hospital. This suggestion had been met by objections that the needs of different wards varied too widely, but there was now a new climate of opinion which more readily accepted the needs of the whole hospital. Firstly, agreement was reached on a book of standardized nursing and medical routine procedures for use on the coronary care unit. Then a hospital routine procedure book was accepted, written, and used, and now a list of routine first-line treatments of medical emergencies is being drawn up by the medical division and the registrars' committee for submission to the medical committee. One of the winds of change contributing to this new climate sprang from the divisions, where the smaller groups made discussion less threatening and more productive.

Other topics discussed in the first three years of the medical division's existence have included the suitability of medical registrar posts for recommendation by the Royal College of Physicians for consultant training and several growing points in the expanding programme of postgraduate education.

Although care of the patients in any one of the general medical wards is the responsibility of one physician, this arrangement is a matter of flexible convenience rather than proprietary rights. In practice, beds within the divisions are available according to clinical needs, and progressive patient care is practised with the coronary unit. When nurses become available the same will be true of the intensive care unit in the surgical division.

The function of the medical division in these talks has been to define the problems and to suggest practical solutions. The statistical data necessary for problem definition have been available from the hospital secretary, but the members of the division are the people who directly encounter the difficulties, and their training has helped them to ask some of the most useful questions. Courses in management may well provide a valuable supplement to a consultant's training and enable him to fulfil his divisional responsibilities more effectively.

Involvement of Junior Medical Staff

From the start the junior staff had been involved in discussions of management problems, many of which directly affected their working lives. This involvement was mainly at unit level, in informal discussions with their own consultants, but for many years the medical mess had elected two registrars or senior registrars to sit on the medical committee. One or two of these representatives of the junior staff had participated actively, but most of them had appeared to feel rather daunted by the size and relative seniority of the full medical committee. In view of these apparent inhibitions and the limited representation, two of the physicians who had taken part in the hospital internal communications project suggested that a registrars' committee should be formed for free discussion of any problems affecting the junior staff. This committee produced several practical suggestions for reorganizing the work. These

were discussed informally within each unit and at the meetings of the medical division. The junior staff were not at first invited to the divisional meetings, but the seeds of this change were sown early and in 1968 the registrars' committee were invited to send a representative to the meetings of the division and to discuss the representation of house-physicians, who now, as a first result, attend the registrars' committee by arrangement with its chairman.

Links with other Departments

Some of the other items discussed involved the laboratories and the department of radiology. On several occasions the divisional meetings provided a useful forum for discussion with these other departments. The biochemist, haematologist, and the senior radiologist used some of these opportunities for two-way communication to explain how the difficulties of their own staff could be eased by more thought on the part of the clinicians. Useful discussions were also held with the morbid anatomist and the bacteriologist. While many of the points raised had doubtless been made on countless previous occasions to individual clinicians, there were several advantages in being able to discuss them with a large number at one time and, more important, to achieve an agreed compromise to which everyone felt a certain degree of commitment. Members of the division had either been personally involved in the process of reaching a decision on the basis of the available information or they had, if absent, tacitly to accept the view of the majority provided that this did not appear unjust.

Links with Nursing Staff

Other items involved the nursing staff. The matron invited a representative of the registrars' committee to address the sisters' meeting on the timing of routine calls to the housemen. On another occasion the senior nursing officer for the medical division ("grade" 8 of the Salmon report⁵) and the ward sisters attended a divisional meeting to discuss several matters of mutual concern, such as the introduction of open visiting, already practised on geriatric and paediatric wards, and the relaxation of restrictions on patients' activities. The greater delegation of responsibility inherent in the new senior nursing structure of the Salmon report should make it easier to have regular nursing participation in divisional committees. The senior nursing officers and nursing officers (Salmon "grades" 8 and 7) both seem well fitted for this purpose, because the nursing officers should be closely in touch with the day-to-day problems on the wards and the senior nursing officers usually have enough experience to know what is practical and enough responsibility to say so. In addition, when matters of policy which could later affect the whole hospital are discussed, the principal nursing officer (Salmon "grade" 9) should also be invited. In this sort of way the tripartite system of the Bradbeer Committee⁶ can be brought more closely together.

Finance

The need for agreement within the division was seldom more clearly defined than in the discussion on priority for items of equipment to be purchased from the non-recurring expenditure fund. As every reader knows, the current budgeting system in the National Health Service ensures that all money remaining unspent at the end of the financial year is returned to the Treasury. The chronic deficiencies of equipment and available funds together determine that the demand invariably exceeds the supply. An agreed list of priority is therefore particularly useful when the end of the financial year is at hand and the last remnants of the hospital budget are fast being spent before the day of the only alternative, return to source. Much more useful than any list of priority, however, would be a rational system of budgeting for the National Health Service in which more discretion was given to the hospital manage-

ment committees to hold over funds from one financial year to another. In this way major items of capital expenditure could be paid for instead of being repeatedly postponed. This must be one of the most obvious single reforms in the running of the service.

Spread of Divisions throughout the Hospital

In October 1968 there appeared a pink memorandum (H.M. (68) 67) asking hospital authorities to encourage the development of the organization of hospital medical staff along the general lines recommended in the "cogwheel report." By this time a surgical division had been in existence for nine months. This division at first incorporated the anaesthetists and the gynaecologists, but these two groups found that they each had sufficient problems of their own to justify creating two more divisions, though this meant that there was no longer a single committee of theatre users. The surgical division dealt expeditiously with several problems, such as the closure of the orthopaedic theatre because of infection, a new code of behaviour in theatre to reduce cross-infection, and an integrated course for the training of theatre technicians. It has also given considerable time to finding ways of improving the inadequate theatre accommodation. A reluctant compromise has been reached as a result of which the regional board is to provide a new theatre suite to supplement existing accommodation until permanent theatre-building takes place. The surgical division is now studying the possibility of expanding the existing five-day ward accommodation to offset the effects of a diminishing nursing staff. In the meantime the laboratory and radiology divisions were already well established, having developed from their own original natural groupings.

Links with Doctors Outside Hospital

The divisions have not yet established formal links with general practitioners and the local medical officers of health, chiefly because they prefer first to put their own house in order. The informal links in the routine work and in post-graduate education and research, however, are steadily increasing, and it may not be long before the specific recommendation of the "cogwheel report," that hospitals should provide an effective liaison with the community services, is more fully accepted.

Medical and Executive Committees

The present view of the medical committee in this hospital is that divisional chairmen should continue to be elected for periods of one or two years, the chairman-elect acting as vice-chairman. There was general agreement that the medical committee provided opportunity for participation in management which was sufficiently valuable to make its continued existence important, not just as a talking shop but as the body responsible for making medical administrative decisions. These decisions were apt to affect the working lives of all its members, who therefore wish to remain involved not only for their individual interests but because "no man is an island, sufficient unto himself" and involvement in the medical mainstream would provide a perspective within which each individual contribution could be better understood and assessed.

Without divisional committees to deal with details which primarily concern only one group, much of the medical committee meeting may lose its relevance to members and waste their time. With a divisional system as envisaged by those who wish to retain a fully functioning medical committee, this body is presented with the essence of a problem and a summary of the statistical and other relevant information, predigested by a division or the hospital administration, depending on the nature of the problem.

The present constitution of the divisional committees is such that a medical executive committee consisting of divisional chairmen would be weighted against clinicians and, as some of

these divisional committees are small, would give equal representation to unequal groups. Therefore at this stage in our experiment the executive committee is not executive in function because it does not make the final decisions. It was formed as a chairman's advisory committee in February 1969, and so it is still too early to predict how its function will develop. A number of people, with varying degrees of approval, think that it will become more truly executive, as suggested in the "cogwheel report," in the interests of more streamlined efficiency. Others believe that we cannot afford to lose the direct involvement of the permanent medical staff and the varying but increasing degrees of involvement of the temporary medical staff in major decision-taking. Those who, like myself, hold this latter view think that loss of involvement leads to loss of active interest and then to apathy, which erodes vitality. As apathy appears to increase with the size of the group,⁴ changes in hospital management structure should combat, not promote, this tendency.

The argument concerns one of the great current dilemmas of Western civilization—efficiency and cost effectiveness through expert professional management versus the personal involvement and job satisfaction of participating democracy. The first view is put forward by the 13 authors of *The Shape of Hospital Management in 1980?*,⁷ who included one doctor: "While participation by staff, and particularly senior staff, in management decisions is both correct and welcome, the need for a clear management hierarchy is also essential." Their concern was with "the provision of a proper management structure and a clear administrative chain of command."

The second, more democratic, view is supported by a relatively new suggestion about hospital management. The need for fuller participation, implicit in a continuing full medical committee at the centre of its divisional committees, is met by the system of "arena management" described by Hunter.^{8,9} In this the central position in hospital administration is "located not on the apex of a pyramidal power-structure, but at the focal point of an arena or locale, where different professionals work together, or at least side by side, on a give-and-take basis."

As the "cogwheel report" envisages, the exact pattern of management will probably vary from one hospital to another according to local needs and circumstances. Whatever the pattern, the need for high-calibre administrative staff remains. Lack of understanding and lack of full communication from groups and boards can so easily frustrate the best efforts of doctors, nurses, and administrators in hospitals. The same may well be true in the opposite direction, but one of the benefits of the divisional system is that it provides, through the executive or chairman's advisory committee, a channel for two-way communication.

The opinions expressed in this article are my own, but I am indebted to many colleagues, including some past and present chairmen of divisions, several members of the medical division, and the hospital secretary, for helpful criticism, and in particular to Dr. N. F. Coghill for many stimulating discussions from which much material has been incorporated.

REFERENCES

- ¹ *The First Report of the Joint Working Party on the Organization of Medical Work in Hospitals*, 1967. London, H.M.S.O.
- ² Regulations Relating to the Examinations for the Diploma of Fellowship (F.R.C.S.Eng.), 1965. Royal College of Surgeons of England.
- ³ *Report of the Hospital Internal Communications Project*. To be published by Tavistock Publications.
- ⁴ Revans, R. W., *Standards for Morale. Cause and Effect in Hospitals*, 1964. London, Oxford University Press.
- ⁵ *Report of the Committee on Senior Nursing Staff Structure*, 1966. London, H.M.S.O.
- ⁶ Central Health Services Council, *Report of the Committee on the Internal Administration of Hospitals*, 1954. London, H.M.S.O.
- ⁷ *The Shape of Hospital Management in 1980?*, 1967. The King Edward's Hospital Fund for London.
- ⁸ Hunter, T. D., in *New Aspects of the Mental Health Services*, edited by H. Freeman and J. Farndale, p. 64, 1967. Oxford, Pergamon Press.
- ⁹ Hunter, T. D., Self-run hospitals, *New Society*, 1967, 10, 356.