



A plea for

Vitalizing Medical Education in Hospitals

as true "teaching institutions"

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ALTHOUGH care of patients by the medical staff is necessary for full fruition of the true meaning of the hospital, it is clear that hospitals require also an adequate physical plant and the efforts of administration, ancillary personnel and nurses for effective operation. Nothing more strongly attests to the importance of the basic premise that adequate care of patients requires joint responsibility by all those concerned.

Essentially, hospitals exist to provide medical care and nursing service not possible nor practical at home nor by ambulatory care directed from a physician's office. Patients are unaware of the enormous ancillary activities which are needed to make this care possible.

The essence of patient care centers in the basic premise that in each instance some physicians must alone or with consultative advice from colleagues and with the various ancillary services available in his office or in the hospital assume responsibility, make decisions and direct treatment for each individual who is sick or injured. All else in the hospital is collateral to this. It stands, therefore that the quality of patient care will be in proportion to the medical knowledge, skill and personal qualities of the individual physician responsible for that person. For the hospital as a whole, the care of patients reflects the composite ability of the entire staff, along with the availability of modern, adequate ancillary services.

I would like to review briefly a few facts about medical education, in order to develop the theme brought out later of how hospitals must change their patterns to play an increasingly important role in the continuous post graduation education of the doctor

throughout his professional career. In general, medical school facilities receive candidates of good or superior ability and feel they can control the quality of student's education and turn out a competent physician. There is still a certain amount of control available during the internship and residency period of training. Beyond this there is no formal mechanism for promulgation of educational activities throughout the professional career of the average physician.

Physicians commonly get caught in the whirl of an active practice and find it increasingly difficult to keep abreast. Yet one of the most certain things about the practice of medicine is that its basic concepts are continually changing. One must move along with these changes. To remain stationary means falling behind. There is a great need in this country for the development of mechanisms whereby a doctor can do continuous post-graduate work throughout his professional career. Let us examine some of the approaches to this subject.

Means to P.G. Education

The one obvious thing is that all doctors are going to read, although the extent, quality and effectiveness of this vary greatly. This is a difficult way to gain new knowledge. By reading one may learn the name, grasp the concept of new things, but not acquire the details nor the skill. These are very difficult to learn without demonstration of them in specific situations with which one is personally involved.

A second approach is for physicians to take post-graduate courses. Those

This article is abridged from Dr. Jeghers' paper before the C.H.A. 39th Annual Convention, Atlantic City, May 17, 1954.

who do obviously can keep abreast to a much better degree than those who cannot or will not. For men in practice going away to do this involves loss of time from their practice and costs a considerable amount of money. If the course is in another city they must live out an appreciable expense. Most post-graduate courses are short courses, predominantly didactic, frequently involving lectures or demonstrations for many hours over one or more days. After two or three lectures on the same day, most individuals cannot grasp or retain very much new knowledge.

The third method is one of post-graduate education carried on by attendance at medical meetings. The same thing applies here except that by talking with colleagues and attending exhibits one frequently gains more than at formal lectures.

Why Not Hospitals?

If one surveys the educational background for physicians it will be seen that the last two and one-half years in medical schools and all the time spent in internships and residencies were spent in a hospital and not in a school. It is very difficult to work out any plan of medical education without using the hospital.

Why not use, then, the hospital with which the doctor is affiliated and fill some of the need of post-graduate education at home in familiar surroundings, on an every-day basis, and utilizing the doctor's own patients as the subjects for the teaching program. It seems to me that hospitals have to be the main source of the continuous post-graduate education of the average physician.

This means that part of the concept of "what a hospital is for" has to change. The hospital should be a

place not only to care for sick people but where physicians can carry on the educational activities of their professional careers. It must become a true post-graduate medical educational institution. If hospital administrators and trustees accept this concept the potential is unlimited. It gives the hospital a much more important function in the community. The hospital will be devoted, not solely to care of patients and practice of medicine, but equally to medical education. With this program of medical education will occur a concomitant increase in nursing education and education of all those involved in ancillary services.

Medicine in its broader sense can be broken down into three components. The first is finding new facts—*medical research*. This may be basic science research, clinical research, or it might be the everyday research doctors do constantly by evaluating something in terms of their own experience. The third component is the *practice of medicine*. The reason for finding these facts is to apply them to the care of the patient through the practice of medicine. It is almost impossible, however, for the busy practitioner to sort out the highly technical basic scientific research and apply it to his patients. Therefore the second component (which links medical research to medical practice) is the intermediary role played by *medical education*: Transmission of basic information to the student, graduate student and practitioner in an understandable fashion.

I do not think it necessary that a hospital away from a medical school and devoted primarily to private practice have a unit devoted to formal research. If it does, I think it increases the spirit, stature and enthusiasm of the hospital, but it is not an absolute necessity. However, informal research and particularly the spirit of research should permeate every hospital. This may mean nothing more than weighing clinical material critically and in this sense is applicable in the private hospital. One may approach a case as an individual doctor, or a group making rounds, or at a staff conference from a different point of view, analyzing the data and drawing from this some sort of valid conclusion. In this sense medical research can be a very informal thing; it can be done in any physician's practice and certainly by any hospital group. In this sense alone it is a real need in each hospital.

Needed: Medical Educators

Badly needed to integrate medical research and medical practice are some competent physicians skilled in medical education. An amazing thing is happening. One sees advertisements in journals for directors of medical education in private hospitals. This was undreamed of ten years ago. Why this need for anyone skilled in medical education? Medical education is becoming a specialty—just as real as surgery, obstetrics, etc. There is a real need for a limited number of men to specialize in it.

Numerically the demand for doctors in medical research is not large and that for medical educators but little greater. In the proportion to the total doctor population both are relatively small.

The great bulk of doctors make up the group which will practice medicine. The chances are that any student who goes through medical school nowadays can be trained to be a doctor competent to care for patients.

This is an important concept to grasp. The man who practices medicine is probably not going to be the individual who will make new discoveries. We have to attract into the field of research a few men who are particularly gifted. The real place for a genius in medicine will be in this group. The cure for cancer will require research by men with new ideas. It is going to require an unusual type

of individual. Many men in medical research are not adapted to practicing medicine. Some do not even make good teachers. Usually, however, most of them can teach effectively, especially in the field of their special interests.

As far as medical education goes, every doctor is capable of doing a certain amount of teaching. They all teach without realizing it. In telling patients how much insulin to take, or how to test the urine, they are educating people. In this sense all doctors and nurses are educators. Some do it better than others. A few can do it at a formal level; almost everyone can do it at an informal level.

In addition to those physicians who can teach part time, we need a small group of physicians who will spend a lifetime at it and develop it as a specialty. The great difficulty at the present time, and the great problem in most medical schools, is that the men who are gifted in teaching do not stay in this field. After four or five years of working for a small salary they go into practice. It is difficult to find physicians of high quality who have the natural gift for pedagogy. Once you have found such a man it takes four to six years to develop him. One really hates to lose him. The gifted teacher is a bridge between the field of research and the field of medical practice. He simplifies the highly technical data of the research man and makes it clear for the practitioner to

Highlights of a section on "Voluntary Health Insurance as of July, 1953" in Health Information Foundation's preliminary report on a "National Family Survey of Medical Costs and Voluntary Health Insurance" includes the following information:

- ▶ Over 87 million people, or 57 per cent of the population, have some hospital insurance.
- ▶ Over 74 million people, or 48 per cent, have some surgical and other medical insurance. Most of the 48 per cent have only surgery and in-hospital physicians' services but 4,900,000 have substantially complete physicians' services.
- ▶ By occupation, there is a variation of 33 to 90 per cent with some type of health insurance.
- ▶ By family income, 41 per cent of those under \$3,000 have some type of health insurance, and 80 per cent of families over \$5,000.
- ▶ In urban areas 70 per cent of the families are enrolled in some type of health insurance and in rural-farm areas, 45 per cent.
- ▶ 80 per cent of the families with health insurance obtained insurance through their place of work or through an employed group.

apply to his patients. His job is to translate things in such a way that all associated with a hospital can understand them.

Let us now discuss the hospital itself. Most hospitals have been designed almost solely to care for sick patients—often not particularly well designed, for the simple reason that so many hospitals date back 20 years when there was not so much that could be done for patients, particularly those ill with medical conditions. The average hospital is equipped to give nursing care, has good operating rooms and an adequate delivery suite. It is a rare hospital that has all the needed modern ancillary facilities. Rarer still is the hospital equipped for adequate post-graduate education. What does one see when visiting hospitals? The x-ray department is often too small. Laboratories are often small and poorly equipped. Many developments of recent years with regard to new methods of diagnosis and treatment, particularly in the medical department, are lacking. The reason is that medical science is developing at such a fast rate that hospital architects simply have not adjusted to all these new changes, or buildings already available cannot be enlarged or finances obtained to acquire newer types of equipment.

Re-orientation of Function

One fundamental thing necessary if we are going to use a hospital as the center of medical education is a certain amount of change in the administration of the hospital to include these new functions, e.g., providing the physical space, needed equipment, and qualified teachers.

Medical educators are unhappy that physicians with good training in medical school and good training in the internship enter practice only to find that post-graduate education is not so well developed as undergraduate, intern and resident education. They see the efforts expended by them being gradually lost by the retarded development in this field. The average well run general hospital is ideally suited for post-graduate education of men in practice, in addition to its programs of internship and residency training.

If this is to take place there must be a reorientation of everybody connected with the hospital—the board of trustees, administrator, staff, nurses, technicians, et al. It is necessary that all understand why medical education

must become an important part of the hospital activities. Actually doctors are already devoting some effort to medical education without realizing it.

Bettering Care

One hears statements like this: "Our primary concern is to the patient," or "Medical education, medical research is all right, but our first duty is to the patient." At first glance this seems like a wonderful thought to have. The point which is over-looked is that without current medical education the patient receives 1940 care in 1954. There is just no way patients can get good care unless education goes on. What was "good care" last year may not be good care this year. The basic premise is that those hospitals with good medical educational attitudes and facilities automatically secure better care for their patients. With continuous education any physician practices better medicine.

It is a subtle and intangible sort of business to compare one hospital with another. What is the difference between a good hospital and a poor hospital? In essence it is "little things done better; a thousand little things done better." When one walks into a hospital and finds one thing done a little better than another hospital, you look at it and are not impressed with that particular item. The difference stands out only when each item done better increases in number to the dozens or hundreds.

To accomplish this the chief of staff, the administrator, the director of education, the head nurses, and others, all have to get together and figure out these things. They can be corrected one by one. Each minor improvement leads to a small increment of better patient care. This reflects to the credit of the hospital as well as of the doctor in practice; the patient is more satisfied and the standing of the institution in the community enhanced.

Everyone wants to be with the winning team; everyone wants to be affiliated with a going concern; best of all, physicians and hospital personnel wish to be identified with a hospital with high standards. The really curious thing about all this is that it is almost as easy to do this well as to do it poorly. It is just as easy to practice good hospital medicine as it is to practice poor hospital medicine if everybody gets into the swing of it—but joint effort by all concerned is necessary to raise standards.

Nothing does so much to raise the quality of patient care in a hospital as maintenance of a successful program for the training of interns and even more so for residents. The need to educate the interns is a most powerful stimulus for the staff and hospital administration to keep abreast. To teach others is the ideal method of improving one's own depth of knowledge.

The concept of developing a teaching spirit within a hospital will be the difference between the hospital following a geometric growth curve or just running along at a flat or slightly rising level.

Specific Suggestions

Advancement on the staff should be by ability and not by seniority. This—more than any other single factor—will determine the over-all quality of patient care in a hospital. Further, it should be stressed that ability should not be so much clinical as teaching. Teaching ability has become the real need in the modern hospital. A man may be a very good doctor, but if he cannot teach anybody he fails to serve a useful function on rounds or at a conference. If he is going to be chief of his service, he should have a considerable amount of teaching ability. Nobody can cover all of the broad field of medicine anyway, so that the concept of teaching and administration in leading a department is more important than pure clinical ability.

The greatest stimulus for better medical education, and patient care, in any hospital will come through the appointment of a full-time paid director of medical education. Medical education is rapidly becoming a specialty in itself and there is need in every hospital of even average size for such a person. In many ways he is a coordinator rather than a director. Better patient care depends on improvement of hundreds of minor items for which the regular physicians have neither the time nor experience. It takes special training and background to do this type of work and but few properly qualified individuals are available. As places for them, special facilities to train them will develop.

Hospitals who have developed such a position have often shown surprising improvements in patient care within a relatively short period of time.

New ideas can best be introduced into a hospital by having professional

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hospital and points up deficiencies that need to be corrected. An annual consolidation of the twelve monthly reports gives a fairly complete picture of the statistics of professional work in the hospital. The statistics in the annual report can be compared with standards set as national averages by the American College of Surgeons. Comparison with national averages is a fairly good measure, but still does not tell the whole story. Standards are in need of revision to conform to modern medical practice.

Hospitals with a system of professional accounting have noted a marked improvement in the standards of professional practice since the system was put into effect. The records are now more informative, more accurate and more prompt. In some instances, professional accounting has shown up administrative deficiency. Poor results are not always due to faulty professional work. In one hospital, a high infant mortality rate was found to be due to faulty nursery nursing procedures which were traceable to understaffing. In another hospital, a high percentage of post-operative complications was due to faulty ventilation. Post-operative deaths in still another institution were cut down by the installation of a recovery room.

A fair and impartial system of professional accounting insures that privileges are granted on performance and merit. Few doctors will oppose the system once they understand it. Teaching institutions have found that professional accounting results in an improved teaching program, while all hospitals have noted that physicians are stimulated to practice medicine on a more scientific basis.

To install a system of professional accounting is not easy. Objections are voiced to the additional paper work and committee meetings involved. Some physicians fear that adverse rulings by the committee might be used against them in a law suit. Others are reluctant to pass judgment on the work of a colleague lest they be judged in return; others may regard it as an attempt at lay domination over the practice of medicine and still others may regard it as sheer nonsense. These objections have been proven to be groundless, but a job of education is required to secure acceptance by the medical staff. As a last resort, the hospital trustees may be obliged to impose the system on the medical staff

in order to fulfill their obligations to the public.

Instances have been found where the system of professional accounting has not presented the true picture of professional performance in the hospital. In those instances, committees failed to pass judgment either through ignorance, reluctance, fear or bad faith. How can the trustees be sure that they are, in fact, looking at the true picture of professional service in the hospital? Even where the system works well, mistakes can be made in accounting which could result in erroneous reporting.

Just as the prudent manager obtains an independent audit of his financial accounts, so also is it prudent for him to verify his professional accounts by a medical audit.

The medical auditor functions essentially in the same manner as the professional accounting committee. The system employed by Farish (The Canadian Hospital; Volume 26; July 1949, p. 34) in the medical audit is first, to examine the statistics of the hospital either as prepared by the hospital or by calculating them individually and to compare them with national standards. He then conducts an analysis of medical records under three general headings: medicine, surgery and obstetrics. The length of the audit period will depend upon

whether the audit is to be all-inclusive or is to be confined to a special branch such as surgery or obstetrics alone.

In any situation, the auditor should examine and report upon in detail:

1. All death records
2. All major general surgical records
3. All gynecological surgical records
4. All Caesarean section records

The "sampling technique" is used in the medical audit as it is in financial auditing. Obviously, as in the financial audit, the medical auditor should be a physician who is experienced in the techniques of medical audit and who can evaluate reliably and quickly the quality of professional work in the hospital. Where he is called upon to verify the report of the professional accounting committee, the audit should be conducted independently and his report should agree substantially with that of the professional accounting committee.

In the last analysis, the effects of professional accounting and of the medical audit upon administration are a consciousness of a duty well done, an obligation to the community discharged and an assurance to the patient and to the public that the best possible professional service is being rendered in the hospital. ☆

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teachers come as guest instructors—not to lecture as such but to spend a whole day or more at the hospital entering into bedside rounds, attending conferences, eating with the doctors, talking with the administrative or laboratory personnel, making suggestions, etc.

As a corollary to the above is the need to have an adequate budget for education. No hospital can claim first class status without this. An educational budget of \$20,000 to \$30,000 in the average hospital with over 10,000 admissions represents \$2 to \$3 per patient as a total cost. Inasmuch as staff doctors could receive much of their post-graduate education in this way, they should contribute to its support the same as they would any post-graduate course they attended.

Another corollary is the need for adequate space and physical facilities and equipment to carry on proper teaching. In my personal experience this is poorly developed and provided for in the average hospital compared to the great embellishments and space assigned to other hospital functions. The director of medical education can play a major role in properly developing these facilities in any hospital.

What can the average physician contribute to improve patient care most in his affiliated hospital? The answer is simple: Devote the equivalent of one-half day a week to his own personal post-graduate education by attendance at and participation in a variety of the exercises which can be developed at any hospital with the desire to do so. ☆