Middle Articles

GENERAL PRACTICE OBSERVED

General-practitioner Hospital Beds: Report on a General-practitioner Bed Unit

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Brit. med. J., 1968, 1, 436-438

During the past few years many changes have taken place in general practice. The more noticeable of these is the tendency to form larger groups, to practise from health centres, and to see patients by appointment. It is pertinent, therefore, to consider other ways in which general practice may change. One such way could be in the relation of the general practitioner to the hospital. The Gillie Report¹ states: "It is generally agreed that the separation which has developed between general practice and the hospital service is undesirable."

As a rule the general practitioner is entirely divorced from hospital practice, unless he holds a clinical assistantship or similar hospital appointment. If he does hold such an appointment he is able to exercise his skills within a certain specialty, but this activity is not directly related to the management of his own patients. Some general practitioners have had cottage-hospital facilities for many years. The tendency at the present time, however, is against the formation of such units.

A report from the Royal College of General Practitioners,² in discussing the co-ordination of hospital and community care, remarked that "[hospital] staffing difficulties, combined with the present inappropriate demands on specialist services, suggest the need to develop 'experimental' family-practitioner wards as part of existing general hospitals. These should be introduced without delay as operational research studies to determine the administrative and clinical difficulties involved."

The purpose of this article is to describe such a unit, in which the general practitioner will be able to treat his own patients.

The Project

In the latter part of the 1950s the late Dr. Arthur Beauchamp approached the Birmingham Regional Hospital Board with the suggestion that a general-practitioner bed unit should be formed within the region. This eventually resulted in the opening of a unit at East Birmingham Hospital in September 1964. It is greatly regretted that Dr. Beauchamp did not live to see the fruits of his labours, but his name has been perpetuated in the naming of the ward.

The Beauchamp Ward comprises a male and a female section, each containing six beds. It was converted from a ward previously used for the treatment of tuberculosis. It is unique in that it is the first ward opened within the bounds of a general hospital in an urban area for the sole use of the general practitioner. The general practitioner can admit a patient and maintain sole clinical responsibility for his care while in the unit.

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Administration

A committee was formed consisting of three senior and three junior members, together with the secretary and chairman of the local medical ward. All were general practitioners. The committee was responsible for initial planning and continues to organize and administer the unit. It is also responsible, in a similar way, for the general-practitioner beds at Marston Green Maternity Hospital. The committee has a representative on the hospital staff committee (East Birmingham Hospital Chest Branch), thereby having direct liaison with the hospital administration. An annual report is published.³

The ward is available for the use of any general practitioner who cares to admit a patient. In practice, however, geographical considerations limit the number of general practitioners who use the unit, which is situated in a densely populated area about 4 miles (6.4 km.) inside the city boundary. It was decided to approach all doctors within the Small Heath and Yardley Ward, and 78 doctors opted to take part in the scheme. Of these, 36 have used the ward regularly. All participating doctors are asked to sign a contract with the hospital, and for medico-legal reasons have to certify that they are members of a defence union. A fee is payable by the hospital on the basis of bed occupancy. By mutual agreement this is not distributed to doctors directly, but is retained to be used communally. An electrocardiograph machine has been purchased with this money and is available for domiciliary use by any doctors connected with the ward. Television sets have been provided for the patients. It is hoped to set up a trust fund with this money in the future to enable selected general practitioners to travel abroad for medical advancement.

Selection of Cases

In order to anticipate any problems which might arise, the bed committee circularized all participating doctors with a list of patients in certain categories who were ineligible to use the unit. These were the chronic sick, acute surgical cases, maternity cases, and children. The great fear was that the ward would be used to nurse the chronic sick and result in the beds being blocked for weeks on end. To ensure the use of the ward for acute medical cases, irrespective of age, a limit of three weeks' stay per patient was agreed. On admission the patient or a responsible relative signs an agreement to this effect, thus ensuring a constant turnover of cases. In practice this works very well. Occasionally, for social, medical, or administrative reasons the time limit is exceeded, but rarely by more than two or three days. The committee has power to investigate unreasonable use of beds and to bring pressure

to bear on the doctor concerned. In practice this has not happened.

It would appear that those doctors who made use of the unit initially have continued to find it of great value, whereas "non-starters" have remained "non-starters." In fact if all local doctors did use the unit the number of beds would be grossly inadequate. Reasons given for not using the ward include the time and distance being too great for some doctors and no bed being available when required. It has been suggested that some general practitioners find it difficult to return to hospital practice after many years' absence.

Emergency Cover

Another problem which confronted the committee was to decide on the method of emergency cover. Though within the bounds of a general hospital, the hospital staff have no direct responsibility for patients within the unit. It was decided that the rota system employed by the general practitioners in their normal everyday duties would be adequate to cover all emergencies, and in practice this has worked efficiently. The types of cases selected are those which require skilled nursing and adequate facilities for investigation and treatment, rather than those requiring the immediate availability of emergency care that is provided in more specialized units.

Admission of Patients

When the ward was first opened a rota scheme was drawn up to control admissions. The doctors were divided into six groups of 12 or 13, a male and female bed being available to each group. Admission was in strict rotation. In practice this restricted cases to the "cold" category only, and often a bed became available at the wrong time owing to the difficulty of selecting patients some weeks ahead. It was soon realized that the value of the ward lay in the treatment of the acute medical case. The rota system was discontinued and a waiting-list instituted under the care of the ward sister. In practice this rarely consists of more than one or two patients. Admission is often immediate or within a day or two.

During the first year 208 patients were admitted and during last year 235. The average daily bed occupancy rate increased from 9.21 (77%) in the first year to 10.29 (85%) in the third year. The average stay in hospital is about 16 days. Many geriatric patients are admitted for the treatment of an acute medical episode, but do not remain longer than is necessary for the particular event.

Of the 656 patients admitted during the first three years 445 would probably have been referred to another hospital if the ward beds had not been available. As beds were not always available for an acute medical admission, a substantial number of patients have no doubt been referred to specialist beds who otherwise could have been treated in the unit.

Cases Admitted

The types of cases treated vary a great deal, chest and heart conditions predominating, especially bronchitis and congestive cardiac failure. The variety can be seen from the following list:

Cardiovascular and Haematological.—Congestive cardiac failure, hypertension, coronary thrombosis, pulmonary embolism, pernicious and aplastic anaemia.

Respiratory.—Pneumonia, bronchitis, asthma, pneumothorax.

Alimentary.—Peptic ulceration, haemorrhoids, haematemesis and melaena.

Central Nervous System.—Cerebrovascular accidents.

Skeletal.—Prolapsed disc, rheumatoid arthritis, osteoarthritis, paraplegia.

Metabolic.—Diabetes, obesity, Addison's disease, acute adrenocortical failure.

Genitourinary System.—Bladder polypus, nephrotic syndrome.

Dermatology.—Eczema, psoriasis, dermatitis, varicose ulceration.

Infectious.—Malaria.

Malignant.—Carcinoma of stomach and bronchus, reticulosis, carcinomatosis.

Consultant Care

During the whole of the stay in hospital the patient remains under the care of the general practitioner, who, though retaining clinical responsibility, may require a second opinion, as in domiciliary practice. The freely available consultant help from East Birmingham Hospital and other hospitals has been greatly appreciated. During the past year 17 doctors made use of consultant opinions, 11 sought opinions more than once, and one doctor received 12 opinions. This liaison between consultant and general practitioner no doubt will go a long way in helping each to appreciate the other's problems. It is of great value to look at x-ray films and pathological reports together. The general practitioner learns a lot in this way, and it is hoped that this gain is not always one-sided.

Special Facilities

Access is freely available to pathology and x-ray departments of the hospital (including the use of contrast media x-ray apparatus), and also to the medical social worker and the dietitian for advice. Electrocardiograph tracings are taken, but it is the responsibility of the general practitioner to interpret these, though consultant opinion is freely given when requested. Limited physiotherapy is available, dependent on availability of staff.

Nursing Care

All who use the ward are in unanimous agreement that the success has been largely dependent on the efficiency and good will of the ward sister. As this is a pioneer scheme, the sister has a difficult task. She has overcome her difficulties with tact and efficiency, and her help is all the more appreciated when one realizes the difficulties which could be encountered with so many different doctors, some of whom differ in their views on management and treatment.

Discussion

The general-practitioner bed unit at East Birmingham Hospital has been in operation for over three years. There is little doubt that the doctors using the unit believe it is a most valuable asset in the treatment of their patients. The main value of the unit lies in the fact that a doctor is able to maintain clinical responsibility for his patients while they are in hospital. This ensures a continuity of care, to the benefit of both patient and doctor.

This type of unit is obviously open to the criticism that the general practitioner is attempting to become a pseudospecialist and depriving patients of consultant care while in hospital. This would no doubt be true if the general practitioner was not selective in the type of patients admitted.

Many patients are normally admitted to hospital because of lack of nursing care and adequate facilities at home, and yet are within the province of a competent general practitioner to investigate and treat. During the past three years 445 patients admitted to the unit come into this category, and would have

been admitted elsewhere if the ward did not exist. In normal hospital practice these patients are admitted to consultant beds, thus depriving patients who may require more specialized care.

There is another, smaller, group of patients (211) who would not have been admitted to hospital but for the existence of the unit. The general practitioner deals with a large number of patients who, because of social reasons or inadequate facilities, cannot be managed satisfactorily at home, but do not normally justify admission to hospital. Inpatient treatment of these people leads to more rapid relief of disability, shortening of illness, and earlier return to work. For example, a large number of varicose ulcers (which have taken many hours of doctors' and patients' time in domiciliary practice) have been healed or generally relieved in the unit.

Another not so tangible and yet very real advantage is that of being able to admit a patient for assessment. A chronic patient who does not seem to be doing very well, but involves one in a great deal of thought and time when visiting, can be admitted and thoroughly investigated, often with very gratifying results. The future management is greatly facilitated. The discipline involved in treating a patient in a hospital environment helps to sharpen one's clinical acumen. A number of Surrey doctors,⁴ fearing closure of cottage hospitals, state: "We believe that direct hospital access to enable us to care for certain of our patients is of great importance to our standards."

I would suggest that such a scheme is a direct stimulant to general practice and if extended should attract doctors who are keen to make the most of their clinical abilities. General practitioners who leave to practise abroad are often attracted by the possibility of access to hospital beds. The use of hospital beds by the general practitioner in this country should be one answer to the emigration problem.

It is very important at this time to increase the attractiveness of general practice, especially for the younger doctor. It is

interesting to note that in the Royal College of General Practitioners' report,² quoted above, the large majority of doctors either had or wanted access to hospital beds. There was a minority of 12 (approximately 18%) who did not want access, and all except one of these were over the age of 40. The younger doctor will become the general practitioner of tomorrow; therefore it is important that general practice should be moulded in the right way. The provision of direct access to hospital beds appears to be a step in the right direction.

The doctors using the unit feel that it is now very well established and is proving to be even more valuable than was envisaged when first opened. From our experience there appears to be very little doubt that there is a real place for this type of unit within the National Health Service.

Summary

A hospital bed unit is described in which the general practitioner is solely responsible for the care of his own patient. This results in gain to the patient in continuous care, to the hospital by releasing beds which would otherwise have been occupied elsewhere, and to the general practitioner by allowing him to make fuller use of his medical skills and training. It is suggested that a unit of this type would increase the attractiveness of general practice in this country.

REFERENCES

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- ² General Practice in South-west England. Report of Royal College of General Practitioners, January 1968.
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HOSPITAL TOPICS

Experience with an Ultrasonic Foetal Pulse Detector

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Brit. med. J., 1968, 1, 438-440

The detection of foetal life in early pregnancy has hitherto been a problem not readily resolved. Even in late pregnancy the foetal heart may occasionally be difficult to hear, and electrocardiographic and phonocardiographic methods, while sometimes helpful, are costly and require special skill.

Reports by Callagan *et al.* (1964), Johnson *et al.* (1965), and Bishop (1966) have suggested that an ultrasonic detector, utilizing the Doppler shift phenomenon (the apparent change of frequency of a moving source of sound), may be of practical value when detection of intrauterine life is important.

Method

A transistorized "crystal" held in a probe transmits ultrasound of low intensity into the body tissues. The sound waves are reflected by interfaces of different acoustic impedance perpendicular to the beam and picked up by a receiver crystal in the probe. Any movement—for example, of foetal heart or a

column of blood—towards or away from the transmitted signal will cause it to be reflected with a shift of frequency, and this difference, suitably filtered and amplified, is converted into an audible signal heard through a loudspeaker or earphones.

The apparatus¹ (Fig. 1), which is powered by rechargeable batteries, is compact, light in weight (4 kg.), readily portable, and easily operated. Provision is made for connexion to a tape recorder when a permanent record is required, and it is possible to display the record on an oscilloscope or suitable pen recorder.

Several different sounds may be identified by means of the ultrasound detector. (1) *Maternal vessels*: the uterine vessels produce a single blowing sound synchronous with the maternal pulse. (2) *Foetal heart sounds* are identified as distinctive double sounds of "gallop" rhythm at foetal heart rate. (3) *Foetal vessels* produce a single sound synchronous with the foetal heart. The *umbilical cord* gives a similar sound of higher pitch; its location may vary, as the cord tends to drift out of

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¹ The apparatus used in this study was manufactured by the Smith Kline Instrument Company and is known as the Doptone Foetal Pulse Detector.