

with the Recommendations of the General Medical Council (in Britain) and similar ideas here, where it is realized that medical registration allows one to become trained for some vocational branch of the profession. This means that continuing post-graduate education for all doctors will be mandatory and a hope that it will not cease after vocational registration. The ultimate function of the register is the protection of the public.

It must be realized that under extreme pressure the Medical Council has produced a provisional list of specialists that can be used officially to implement a specialist consultation benefit. This gives breathing space for some of the implications of the register to be studied before the regulations are drafted and gazetted. The specialists hope that the criteria for admission

to the register of specialists and those allowing for appointment as a hospital specialist will become one and the same.

It is known that there are some 950 hospital specialists, and if the number on the provisional list is much over 1,200 then the Medical Council has been more than generous to the foundation members. The most important task will be the laying down of adequate standards of training when so many specialists go abroad to finish their education. No one thinks that raising standards of training can be other than a long-term mission. For New Zealand these reforms are 30 years overdue, and, if vocational training is to have any sort of meaning, registration of specialists is an essential but minor requisite to be taken as a matter of course.

GENERAL PRACTICE OBSERVED

Work of a Nurse in a Health Centre Treatment Room

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Summary: In six months there were 1,704 attendances at the treatment room of a small health centre. The attendance rate for the population registered with the health centre doctors was 448 per 1,000 patients per year. Females between 15 and 44 years and males under 15 had the highest attendance rates. There were 256 casual attenders, 58 (23%) of whom were referred to a doctor or hospital for further advice or treatment.

It is suggested that in a health centre treatment room about six hours of nursing time a week for every 1,000 patients is required, and that a case can be made out for some of the routine work of casualty departments being done in health centres.

Introduction

Every health centre in Bristol includes a treatment room which is staffed for up to 12 hours a day by State-registered nurses. The main function of these nurses is to assist the family doctors working in the health centres by undertaking practical nursing tasks, though the treatment rooms also come to be looked on by the local populations as convenient sources of professional advice. This report describes the work undertaken in the treatment room at one small health centre during the first six months of 1968.

Material

Stockwood Health Centre was opened in the autumn of 1967 in a newly developed area of the city. Seven family doctors from three practices work from the health centre, caring for about 7,500 patients. All have other surgery premises elsewhere.

The treatment room is staffed by sessional State-registered nurses from 8.30 a.m. to 5 p.m. from Monday to Thursday, and on Fridays until 1 p.m. In addition to working in the treatment room, the nurses assist as required in surgeries and clinics. Most of the time only one nurse is required, but on two mornings a week, when the demand from surgeries and clinics is particularly heavy, two nurses are normally present.

On Friday afternoons and Saturday mornings work in the treatment room is undertaken by members of the community nursing team established at the health centre (Dixon and Trounson, 1969). The State-enrolled nurse from this team also works in the treatment room from 5 to 8 p.m. on Thursdays, when for the most part she carries out repeat injections, dressings, and local skin treatments.

During the first six months of 1968 the nurses recorded certain information in respect of every attendance at the treatment room. The treatment given or action taken was described briefly on the record form and later coded by me, so as to eliminate differences in classification which might have arisen if this had been done by several different people. In some cases more than one item of service was provided for the same patient at a single attendance, but only the main item of service according to a predetermined order of precedence (see Table III) was used for the purposes of classification.

Results

Pattern of Attendances

During the six months of the study there were 1,704 attendances at the treatment room. The majority (57%) were referred direct by the general practitioners, but 15% attended on their own initiative and a few were referred by other agencies or by one of the community nurses (Table I). Over a quarter were second or subsequent visits for completion of a course of treatment begun at the time of first referral or casual attendance.

TABLE I.—Source of Attendances at Treatment Room, January to June 1968

	No.	%
Referred by general practitioner ..	972	57.0
Referred by other professional person ..	18	1.1
Attended on own initiative ..	256	15.0
Follow-up attendances ..	451	26.5
Not stated ..	7	0.4
Total ..	1,704	100.0

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On average there were 11.1 attendances at the treatment room each working day. Attendance was particularly high on Thursdays, when the evening session was held, and low on Saturdays, when the health centre was open only in the morning. There was not much difference between the attendance averages for the other four weekdays. There was a little more variation between the mean daily attendances each month, attendances being particularly low in January and particularly high in February, but there is no discernible pattern or trend over the short period of the study.

Of the 1,704 total attendances 31 were patients of doctors other than those practising from the health centre. The age and sex distribution of the population registered with the health centre doctors was known (Table II), and Table III shows the main items of service given to the 1,673 registered attenders in different age and sex groups. Where more than one item of service was provided classification was according to the item of service highest on the list, as given in Table III. Females in the age group 15 to 44 years had the highest attendance rate, followed closely by the trauma-prone males under 15.

TABLE II.—Population at Risk at Stockwood on 31 March 1968

Age in Years	Male	Female	Both Sexes	
			No.	%
0-4	607	564	1,171	15.7
5-14	723	681	1,404	18.8
15-44	1,725	1,883	3,608	48.3
45-64	410	404	814	10.9
65 and over	153	304	457	6.1
Not known	5	14	19	0.3
Total	3,623	3,850	7,473	100.1

Casual Attenders

A total of 256 attendances were on the initiative of the patient or his relatives rather than as the result of referral by a doctor or other professional person. Of these patients 70% were under the age of 15, compared with only 42% of the total attenders (Table IV); 25 (9.8%) were registered with doctors other than those practising from the health centre.

There were no significant differences between the average numbers on each of the five days from Monday to Friday. There was a tendency, however, for the average daily casual attendances to increase from the beginning of the period of the study, with a peak in April coincident with the school holidays. This trend may be related to increasing awareness by the local population of the ready availability of advice and treatment.

The main items of service provided for the 256 casual attenders are shown in Table V. The nurses felt that 58 (23%) needed advice or treatment which was beyond their capabilities and that 53 (21%) needed only advice or reassurance.

TABLE III.—Main Items of Service Provided for Patients Registered with Health Centre Doctors, January to June 1968

	Male							Female							Sex not Stated	Both Sexes	
	Age in Years						All Ages	Age in Years					All Ages	Total		Rate per 1,000 Patients at Risk per Year	
	0-4	5-14	15-44	45-64	≥65	Not Stated		0-4	5-14	15-44	45-64	≥65					Not Stated
Referred to doctor or hospital with or without interim treatment	13	13	6	—	1	—	33	7	3	10	—	1	—	21	—	54	14.5
E.C.G.	—	—	3	—	1	—	5	—	—	1	—	3	—	6	—	11	2.9
Venepuncture	—	—	—	—	—	—	—	—	—	142	—	—	—	142	—	142	38.0
Antenatal	—	—	—	—	—	—	—	—	—	103	—	—	—	103	—	162	43.4
Other	3	11	12	1	—	—	27	4	9	11	6	2	—	135	—	162	43.4
Injections	4	2	56	—	—	—	68	—	1	83	4	—	—	94	—	162	43.4
Eye, ear, nose, and throat treatments	5	12	16	5	7	1	46	4	18	33	15	13	—	83	—	129	34.5
Local skin treatments and dressings	78	144	50	8	—	—	280	43	83	119	11	7	2	265	1	546	146.4
Collection of pathology specimens	2	1	5	—	—	—	8	3	2	28	—	—	—	33	—	41	11.0
Chaperoning or assisting G.P.	66	14	6	2	—	—	88	68	12	74	6	4	5	169	—	257	68.8
Tests—weight, urine, vision, etc.	1	11	12	3	6	2	35	7	11	41	9	3	2	73	3	111	29.7
Oral polio vaccine	1	2	—	—	—	—	3	3	—	—	—	—	—	3	—	6	1.6
Advice only	13	12	2	—	—	1	28	12	6	3	—	—	—	21	—	49	13.1
Not stated	—	—	—	—	—	—	—	1	—	1	—	—	—	3	—	3	0.8
Total	186	222	168	26	15	4	621	152	145	638	60	42	11	1,048	4	1,673	
Rate per 1,000 patients at risk per year	613	617	195	127	196		343	539	426	678	297	276		545		448	

TABLE IV.—Age and Sex Distribution of Casual Attenders at the Treatment Room, January to June 1968, Compared with That of All Attenders

Age in Years	Casual Attenders				All Attenders Both Sexes	
	Male	Female	Both Sexes		No.	%
			No.	%		
0-4	66	38	104	41	345	20
5-14	46	29	75	29	376	22
15-44	21	36	57	22	817	48
45-64	5	3	8		91	
65 and over	2	7	9	8	57	10
Not stated	1	2	3		18	
Total	141	115	256	100	1,704	100

TABLE V.—Main Items of Service Provided for 256 Casual Attenders at the Treatment Room, January to June 1968

Referred to doctor or hospital with or without interim treatment	58
Eye, ear, nose, and throat treatments	20
Local skin treatments and dressings	125
Burns and scalds	24
Sprains	14
Lacerations and other trauma	61
Skin infections	13
Other	13
Advice only	53

Use by Different Practices

During the six months of the study there was a total of 830 referrals for items of service other than antenatal blood tests from the doctors practising from the health centre. This represents a crude referral rate of 222 per 1,000 patients at risk per year. The doctors in one partnership performed most of their immunizations in the treatment room with the help of a nurse, and hence had a high referral rate for children under the age of 15. Apart from this, there were no pronounced variations between the practices in the referral rates for different age and sex groups, nor in the rates at which different items of service were requested.

Discussion

The pattern of work undertaken by a nurse employed in a general practice setting, whether group practice or health centre, will vary with the needs of the population concerned and with the habits and preferences of individual doctors. A report of this nature can thus do little more than provide a guideline for others who are contemplating the employment of a nurse or the staffing of a health centre. It certainly cannot be taken as anything more than an indication of the saving of doctors' time which might follow the employment of a nurse. While there is no doubt that some of the tasks undertaken would in the absence of a nurse have had to be done by the doctor, some would have been done by other agencies and some would not have been done at all. Similarly, the crude

attendance rate of 448 per 1,000 patients at risk per year will not necessarily apply in other situations, even when allowance is made for the age distribution of the population, as it seems likely that work for a nurse in general practice expands to fill the time available. Nurses have been employed in general practices for periods of time which vary from half an hour a week for every 1,000 patients (Marsh, 1967) to about 12 hours a week for every 1,000 patients (Cartwright and Scott, 1961), and have performed items of service at rates varying between 240 and 1,000 per 1,000 patients per year.

The Gillie Report (Central Health Services Council, 1963) observed that it required a partnership of four or more doctors to take full advantage of the services of a full-time practice nurse, and a study in four general practices led to a similar conclusion that a nurse could usefully be employed on surgery work and home-visiting for up to four hours a week for every 1,000 patients (Royal College of General Practitioners, 1968). Nevertheless, the pattern of work at Stockwood and at other health centres in Bristol suggests that one full-time nurse for every 5,000 to 7,500 patients, equivalent to about six hours of nursing time a week for every 1,000 patients, is needed to carry out practical nursing procedures such as those undertaken at Stockwood, perform immunizations, and assist in surgeries and clinics as required. Nation-wide provision of staff on this scale would require about 8,000 nurses, but when added to the total of health visitors and district nurses (Ministry of Health, 1968) there would still be only about one nurse to each general practitioner, a proportion which would be thought normal or even niggardly in many developed countries (Drury, 1967; Weinerman, 1968).

The policy adopted towards casual attenders will affect planning for the provision of nursing staff in health centres. While a State-enrolled nurse is well able to carry out most of the practical tasks required for those patients who were referred to the treatment room by some professional person, the correct management of casual attenders often requires skill and knowledge which could not be expected of an enrolled nurse. The State-registered nurses at Stockwood referred 23% of the casual attenders to a hospital or doctor, and this proportion would have been very much higher if only a State-enrolled nurse had been available. In a large health centre a satisfactory staffing

pattern would include both State-enrolled nurses, who could do much of the practical work required, and State-registered nurses, who would provide advice and supervision and who would be in a better position to cope with casual attenders in the absence from the premises of a doctor. In a small health centre where only one nurse is normally present at any one time she should be State-registered. Alternatively, it could be decided that casual attenders would not normally be seen, but this policy would be both practically and politically unwise.

If the necessity for providing some sort of casualty service at health centres is accepted, then one might go further and contemplate the provision of a more extensive service than that possible at Stockwood. In London 30% of casualty patients are discharged on their first attendance, 46% are asked to return to the casualty department, and only 24% are admitted to hospital or referred to consultant clinics (Fairley and Hewett, 1969). It is likely that many of those asked to return to casualty departments could be treated more conveniently and probably less expensively at local health centres, and this would also apply to many of those discharged on their first attendance if facilities for simple radiography were available. A case can be made out for the concentration of sophisticated casualty services in fewer hospitals, and for channelling those patients requiring less specialized management to well-equipped and adequately staffed treatment rooms in health centres.

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CONFERENCES AND MEETINGS

Liver Circulation and Portal Hypertension

[FROM A SPECIAL CORRESPONDENT]

A meeting on the hepatic circulation and portal hypertension was held in New York from 2 to 4 October 1969 under the auspices of the New York Academy of Sciences and the American Association for the Study of Liver Diseases, and under the chairmanship of CARROLL M. LEEVY (New Jersey College of Medicine).

J. E. HEALEY, jr. (Houston), described the intrahepatic vascular anatomy, showing a sub-capsular plexus between the right and left hepatic arterial branches. In secondary malignant disease the hepatic blood vessels and bile ducts were displaced around the tumour deposits, and the portal vein radicals were divorced from the tumour. A. M. RAPPAPORT and co-workers (Toronto) showed an elegant film of the hepatic microcirculation in rodents. Portal hypertension due to obstruction to blood flow through the

sinusoids developed when a fatty liver was produced by a choline-deficient diet. Poisoning with *Crotalaria fulva* led to clumping of erythrocytes, which formed microthrombi and blocked the sinusoids at their exit into the central hepatic veins. This led to an appreciable rise in portal blood pressure.

F. SCHAFFNER (New York) had made electron-microscopical observations on the livers of rats exposed to oxygen excess (one-third of an atmosphere oxygen), conditions simulating that found in space-craft. Electron microscopy showed a definite increase in size and number of mitochondria at the expense of other cell contents. Autophagic vacuoles and lysosomes containing residual pigment were more numerous. When oxygen was deficient, on the other hand, and particularly if this was severe, little functional adaptation was possible. Glycogen synthesis

fell, while electron-microscopy showed an increase in lysosomes and fragmentation of the endoplasmic reticulum. The transport capacity for dyes, such as bromsulphalein, was decreased. The changes were not like those seen in the chronic passive congestion of heart failure, but resembled those seen in shock.

HANS POPPER (New York) showed how interference with hepatic blood flow favoured the development of excess collagen fibres in the liver. These fibres, deposited around capillaries, particularly in the sinusoidal wall, interfered with the hepatic circulation and with exchange between the sinusoidal blood and the liver cells.

Schistosomal Portal Hypertension

F. VON LICHTENBERG (Boston) described the portal hypertension related to infection