

# THE SIGNPOST

## A Study of Referrals in a Rural Practice

L. A. C. WOOD, M.A., M.B., B.Chir., D.Obst.R.C.O.G.,  
Penshurst

THIS is an analysis of patients referred to the hospital service from a rural practice in 1959. It began as a piece of personal curiosity, prompted by a suggestion in the restricted publication *Between Ourselves*. The data which resulted were laid aside, but further thought about these results has led to the decision to seek publication. Firstly, because few studies of this problem have been published and none, to my knowledge, from a rural practice. Secondly, because individual studies of this nature, though small in themselves, do when added together raise issues of interest to medical planners and educationalists. Finally, because hardly a week passes without the suggestion by some expert or other, that the general practitioner is a signpost whose arms point to the various hospital departments.

To be an accurate signpost is something in itself but the studies of Fry and of Hopkins, to which reference is made below, have shown that only a small proportion of patients need to be referred. Yet the theory that the general practitioner is solely a signpost is repeatedly expounded and is acquiring the dangerous dignity of an axiom. Here are two recent examples within a month. Quotation from the Porritt report in a *British Medical Journal* leading article: "Casualty departments . . . were being swamped with minor surgical cases which general practitioners with an interest in this subject could have treated themselves". Another leading article in the same journal: "Patients who could well be treated by their family doctors crowd into hospital outpatient departments".

In the present study it is proposed to examine in particular the reasons for referral and the variety of conditions referred, and to

consider how many of these might have been treated by the general practitioner alone, given the proper facilities.

### The Practice

This study refers to the work of one partner only in a partnership of two doctors employing, at the time, one part-time assistant. National Health Service lists are kept separate except for emergency and off-duty arrangements. The practice is rural and about 85 per cent are dispensing patients. All social classes are represented; employments include agricultural workers, commuters of all grades and some light industries. Direct pathological facilities are available but no direct x-ray facilities.

It was decided to exclude from the calculations a residential school (180 educationally subnormal boys), a residential nursery (50 children under five years), about 50 private patients, and all temporary residents. This leaves a total list of 2,354 patients. No investigation of this kind is valid without an age and sex register; my register is compiled from a list of patients actually in the district attended by myself; it does not include persons known to have left the district, even though their records are still held, nor does it rely on figures supplied by the executive councils which are notoriously inaccurate. The figure of 2,354, therefore, represents actual numbers known to be at risk at the end of 1959. Numbers have remained stable for some years with very small variations. (Table I).

TABLE I  
PERCENTAGE AGE AND SEX DISTRIBUTION OF 2,354 PATIENTS COMPARED WITH THE NATIONAL AVERAGE IN 1955 (MORBIDITY STATISTICS)

<i>Age group</i>	<i>Practice population</i>		<i>England and Wales 1955</i>	
	<i>Males</i>	<i>Females</i>	<i>Males</i>	<i>Females</i>
0-14 .. ..	13.0	12.4	11.6	11.0
15-44 .. ..	18.8	18.8	20.2	20.6
45-64 .. ..	11.5	12.3	11.8	13.3
65+ .. ..	5.6	7.6	4.6	6.9
All ages ..	48.9	51.1	48.2	51.8

It will be noted that a relatively high proportion fall into the age groups 0-14 and 65+, the two groups known to suffer the highest sickness rates.

### The method

A simple list of all referrals was kept for the year 1959. These

are classified as:

1. Outpatients including domiciliary consultations and casualty department consultation.

An occasional patient may have presented himself at casualty and so escaped being recorded, but this is not a usual custom of patients in this practice and the numbers must be very small.

2. Acute inpatients—direct admission

3. 'Cold' inpatients—admission from hospital waiting lists.

All known cases are recorded though a few others may have flitted in and out without being heard of. No great importance is attached to this group; it represents the decision of a consultant who is free to admit a case or not, rather than a direct responsibility of the general practitioner. Many of this group have already been included in outpatient figures. Pathological referrals are not included since a fair number of such examinations are done in the surgery.

### Results

A total of 233 patients were referred to outpatient departments (including 11 domiciliary consultations), 41 were admitted to hospital as acute cases, 45 were admitted as 'cold' cases. (Table II).

TABLE II  
REFERRALS BY AGE AND SEX  
(Figures in brackets represent percentage of those at risk in each age and sex group.)

Age group	Outpatients		Acute inpatients		"Cold" inpatients	
	Males	Females	Males	Females	Males	Females
0-14 ..	29 (9.5)	19 (6.5)	5 (1.6)	4 (1.4)	5 (1.6)	3 (1.0)
15-44 ..	40 (9.0)	55 (12.4)	4 (0.9)	12 (2.7)	6 (1.4)	15 (3.4)
45-64 ..	27 (9.9)	34 (11.7)	1 (0.4)	1 (0.3)	5 (1.8)	5 (1.7)
65+ ..	9 (6.7)	30 (11.2)	8 (6.0)	6 (3.4)	2 (1.5)	4 (2.2)
All ages ..	105 (4.5)	138 (5.4)	18 (1.6)	23 (1.9)	18 (1.6)	27 (2.2)

A high referral rate to outpatient and inpatient departments is noticeable among females of age 15-44. Among the acute admissions males of 65+ predominate.

#### Items of service

During 1959 practice records show 4,591 surgery attendances and 5,444 visits, making the total doctor-patient contacts 10,035. This

represents 378 items per 100 patients at risk during the years. The rate for England and Wales in 1955–56 was 380 and for the south of England 320 (Morbidity Statistics). Items such as repeat prescriptions and telephone consultations have not been recorded. It would have been better if a record had been kept of the actual conditions dealt with by the general practitioner without consultant help, but this was not thought of until too late.

As might be expected the highest referral rates to outpatient departments are for general surgery, ear, nose, and throat, and general medicine; acute inpatients are predominantly to general surgical and general medical wards; 'cold' inpatients mainly to general surgical, gynaecological and ear, nose and throat wards. Twenty of the cases referred to casualty were for x-ray for suspected fractures. (Table III).

TABLE III  
REFERRALS BY HOSPITAL DEPARTMENTS

Department	Outpatients		Acute inpatients		'Cold' inpatients	
	No. referred	Total referrals per cent	No. referred	Total referrals per cent	No. referred	Total referrals per cent
Casualty	25	10.7	—	—	—	—
General surgery	34	14.6	17	41.5	12	26.7
Orthopaedic	24	10.3	3	7.3	2	4.4
Gynaecology	20	8.6	4	9.8	9	20.0
Obstetric	1	0.4	3	7.3	1	2.2
Ear, nose, throat	43	18.5	1	2.4	13	29.0
Ophthalmic	16	6.9	1	2.4	1	2.2
General medicine	45	19.3	9	22.0	3	6.7
Dermatology	8	3.4	0	0	2	4.4
Neurology	7	3.0	0	0	1	2.2
Psychiatric	4	1.7	1	2.4	1	2.2
Paediatric	6	2.6	2	4.9	0	0
Total	233	100.0	41	100.0	45	100.0

*Reasons for referral to outpatient departments (including domiciliary consultations). (Table IV).*

It was surprisingly difficult to decide in retrospect the exact reason for referral in every case. Only in six cases was there any awareness of 'pressure' from the patient. After studying other articles on this subject it was decided to adopt the following classifications in order

to make the position as clear as possible:

1. For second opinion { Diagnosis. This corresponds to 'doctor stuck' (Fry, 1959).  
Advice. Diagnosis known before referral.
2. For investigation { General practitioner. Investigations that could have been arranged by the general practitioner without reference to consultant if facilities had been available.  
Special. Investigations involving specialist's facilities or interpretations, including electrocardiographs.
3. For treatment.       Diagnosis and probable treatment known before referral.

TABLE IV  
REASONS FOR REFERRAL TO OUTPATIENT DEPARTMENTS

Department	Second opinion		Investigation		Treatment
	Diagnosis	Advice	General practitioner	Special	
Casualty	—	—	20	—	5
General surgery	7	3	2	4	18
Orthopaedic	6	9	—	—	9
Gynaecology	—	6	—	4	10
Obstetric	—	—	—	—	1
Ear, nose, throat	5	21	—	8	9
Ophthalmic	9	5	—	—	2
General medicine	8	5	20	10	2
Dermatology	1	5	—	—	2
Neurology	4	2	—	1	—
Psychiatric	—	4	—	—	—
Paediatric	2	3	—	1	—
Total	42 <i>per cent</i> 18	63 <i>per cent</i> 27	42 <i>per cent</i> 18	28 <i>per cent</i> 12	58 <i>per cent</i> 24

It is of some interest to note the actual disposal of these cases by the hospital services. Thus 62 were placed on the waiting list for admission, 37 were given outpatient treatment, 82 were referred back to the general practitioner with advice, and 52 were referred back after various investigation. In 17 cases no firm diagnosis was reached.

#### *The inpatients*

There was a total of 8.6 admissions per 1,000 doctor patient contacts. It is not proposed to analyse the admissions to hospital in detail. However, it is estimated that only seven of the acute or direct admissions might have been managed by the general practitioner alone in a general-practitioner hospital ward. Three of these could

have been managed equally well at home if relatives had been available to nurse them. All the seven were medical cases. Of the 'cold' admissions every one required the attention of consultant or specialist.

### Discussion

On reviewing the literature on this subject it is at once apparent that comparisons between this and previous surveys are difficult to make, due to differences in definition and analysis, and sometimes to ambiguity as to what is actually being measured. These difficulties are discussed in a recent article by Lees and Cooper (1963).

Hopkins (1956) in a three year study showed an average of 321 doctor-patient contacts per 100 patients at risk per year. He included temporary residents. The age and sex distribution of his practice showed an unusually high proportion of patients in the 15-44 age group. Average referrals to outpatient departments per year were 370 out of an average at risk of 1,370 (27 per cent). Average inpatient referrals were 38.6 per year (2.8 per cent) but it is not clear if these were total admissions or only acute.

Fry (1959) referred 9.8 per cent of those at risk in 1957 including x-ray referrals but excluding pathology. He is fortunate in having direct radiological access. He showed an attendance rate of 330 per 100 patients at risk. Bloor (1962) with an attendance rate of 400 referred 8.1 per cent; this seems to include outpatient referrals, domiciliary consultations and acute inpatients. Carmichael, Ross and Stevenson (1963) with an attendance rate of 670 referred 9.5 per cent to outpatient departments; it is not stated whether casualty, pathology and x-ray referrals are included. Starey (1961) studied referral habits of 30 doctors. The period of study (three months) was admittedly too short for conclusions to be drawn. Remarkable differences in referral habits were shown, as between individual doctors.

There is less information about reasons for referral. 15 per cent of Fry's referrals were for diagnosis ('doctor stuck') and nine per cent for special investigation. These figures correspond to the 18 per cent and 12 per cent, respectively, of the present investigation. Hopkins also found 15 per cent of his referrals were for consultant's opinion, but his 'special investigation' group of 31 per cent included pathology and radiology. 73 per cent of Fry's referrals and 53.8 per cent of Hopkins' were for treatment, but it is not clear whether these refer to combined outpatients and inpatients. Both Fry and Hopkins referred a relatively large number of cases for psychiatric treatment.

The incidence of neurotic illness quoted by Hopkins may seem surprising, but I believe it is substantially correct despite the statement of Lord Taylor which he quotes.

The figures in the present study, where comparable, show a fair correlation with those of other studies; however, the admission rate of 8.6 per 1,000 doctor-patient contacts is lower than the average; the morbidity statistics of 1955-56 show a rate of 14 for south rural practices, 12 for total rural, and 12 for England and Wales. Numbers referred for treatment are markedly lower than those of the other two comparable surveys; the psychiatric referral rate is also comparatively low. I estimate that about one in five consultations are primarily for psychiatric conditions, but I believe the majority of these are best treated at home provided one is interested in the subject; simple psychotherapy is an essential and unavoidable part of family practice.

The present survey does not find anything new but further confirms work already done on the subject. It shows that nearly 90 per cent of medical practice can be conducted without reference to the hospital service, and that even more could be done if facilities such as radiology, pathology, electrocardiography, physiotherapy, etc., were directly available to all. Some of us have some of these things already and we are grateful for them; others still have none. The financial structure of the National Health Service unfortunately gives an incentive to refer more to hospital and to avoid treating many conditions which could be dealt with as well, or better, outside. Much has been said about getting the general practitioner into the hospital, little about treating the patient at home; much about new hospital building plans, little about the medical and nursing staff they will require. In the present state of the hospital service staffing problems alone should discourage us from adding to its burdens any that are unnecessary.

### Conclusions

I should like to end with some personal views. The purpose of the medical service as a whole is ultimately the care of the individual patient, actual or potential. The problem facing the three divisions of the service is one of liaison between them, rather than the invasion of one into the province of another. I do not myself wish to undertake hospital work; many procedures which are commonplace in hospital are highly technical affairs requiring continual practice and experience to which I cannot hope to attain. Clinical

assistantships provide an interesting hobby and may be a great help to the hospital, or they may be useful for the general practitioner who intends to specialize. But to the extent to which the general practitioner specializes he ceases to be a general practitioner. The broad outlook is needed now, more than ever, for the evaluation and correlation of the advances in medical science and for their application to the needs of the individual. I believe that the general practitioner should indeed enter the hospital, but in an advisory capacity as a consultant in general practice in respect of his own patients. He is also the proper person to interpret and explain to his patient what is going on, rather than a member of the hospital staff. It cannot be too often repeated that the general practitioner's responsibility for his patient is a continual one, running through the incidents of hospital treatment; and it is often forgotten that every general practitioner has had experience of hospital work whereas very few members of hospital staff nowadays have any experience of work in general practice.

It follows that we need more facilities for the care of our patients outside the hospital walls and more liaison with those who work within them. Are all general practitioners willing to take on these added responsibilities? Have they the time? Are they trained to do so? I believe the willingness is there but far too little time is available in present conditions. As regards the training, this is entirely in the hands of specialists and an unbalanced perspective is inevitably given in these circumstances. Advice from the realm of general practice must become an integral part of the planning of the medical curriculum.

Finally, let anyone who has not already done so read the excellent account by Jacoby and Clark (1963) of an "American Community Hospital". Here, surely is an ideal, even if we cannot hope to reach it for a long time.

### Summary

A study of hospital referrals from a rural practice in 1959 shows that nearly 90 per cent of medical work can be conducted without reference to the consultant and hospital services. The proportions referred to the various departments are examined, as are the reasons for referral. It is found that some patients who were referred might have been dealt with at home if more facilities had been available. A comparison with other similar surveys is made. Finally, some personal views are given on the relative functions of the hospital



and general-practitioner services and the need for more liaison between them.

## REFERENCES

- Bloor, D. U. (1962). *Practitioner*, **189**, 660.  
*Brit. med. J.* (1962). **2**, 1173.  
*Brit. med. J.* (1962). **2**, 1378.  
Carmichael, L., Ross, F., and Stevenson, J. S. K. (1963). *Brit. med. J.*, **1**, 736.  
Hopkins, P. (1956). *Brit. med. J.*, **2**, 873.  
Fry, J. (1959). *Brit. med. J.*, **2**, 1322.  
Jacoby, M. G., and Clark, J. R. (1963). *Brit. med. J.*, **2**, 42.  
Lees, D. S., and Cooper, M. H. (1963). *J. Coll. gen. Practit.*, **6**, 408.  
Logan, W. P. D., and Cushion, A. A. (1958). G.R.O. Studies on Medical Publication Subjects, No. 14. Morbidity Statistics from General Practice, **1**, Pp. 25, 55, 146.  
Starey, C. J. H. (1961). *J. Coll. gen. Practit.* **4**, 42.
- 

**Incidence of de Quervain's Thyroiditis: Ten Cases from One General Practice.** I. R. MCWHINNEY. *Brit. med. J.* 1964. **1**, 1225.

Ten cases of de Quervain's thyroiditis were noted in one general practice over a nine-year period, the practice list varying from 5,943 in 1954 to 7,891 in 1963.

The clinical and pathological features of the disease are described and the author concludes that its supposed rarity in Britain may be due to many mild cases being misdiagnosed or undetected. Two of the cases in his report were, in fact, diagnosed in retrospect.

**Outbreaks of a Papulo-vesicular Exanthem on the Hands and Feet ('Summer-term Blains').** R. P. WARIN *et al.* *Brit. med. J.* 1964. **1**, 1413.

An unusual papulo-vesicular eruption affecting school girls in the 12-17 age group and occurring in three clear-cut outbreaks, at Bath in May 1962 and 1963 and at Hastings in May 1962 is described.

Despite extensive investigations the cause remains doubtful. A suggestion is that the disease may be the result of seasonal climatic factors acting in association with an unknown virus infection.