Chronic high users in a general practice*

A preliminary study

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AS general practitioners we are often made painfully aware of our neglect of those of our patients, particularly among the elderly,[1 2 3] who use our services too little. In contrast, the needs of those patients who use our services extensively are not known; we know that such patients exist, but we have only a fragmentary knowledge of who they are, what conditions they suffer from, what motives impel them to seek medical advice so frequently and whether their needs are satisfied. One group of patients, which seeks medical advice frequently, suffers from psychiatric disorders. Because of difficulties of definition and standardization it is difficult to make any comparisons either of our success as practitioners in treating these patients or of the value of the variety of treatments available. This study set out to identify patients making a considerable and continuing use of a doctor's time and to decide, as a preliminary step, whether the results of treatment of patients consulting frequently for psychiatric conditions were any better or worse than of those consulting frequently for other reasons.

Patients and methods

My partner and I practise in a market town of 15,000 inhabitants where half of our patients live and in which we have our main surgery. The remainder live in the surrounding rural district and we each have a branch surgery in villages near the town. The area is one of high employment, mainly in the motor industry, in atomic energy and other research establishments and in a large Royal Air Force Station. On 1 April 1965 there were 2,547 patients on my National Health Service list, although I could identify only 2,468 (1,180 males, 1,288 females): 21 people still registered on my list had died or had left the practice, 22 were not identified but were believed to be still in the area and 36 patients were not traced. These 2,468 patients are analysed by age in figure 1 and by Registrar-General class in figure 2. In the quarter up to 1 April 1965, 1,136 (490 males, 646 females) of these 2,468 patients had had 3,214 consultations (as defined by Backett *et al.*[4]) with myself, my partner and our locums, a consultation rate per patient at risk of 1.3 for the quarter. Information about these 3,214 items of service in the initial quarter was

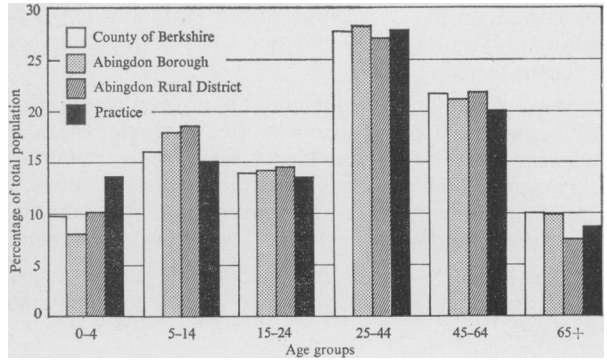

Figure 1
Classification of practice by age groups, with local comparisons

*Upjohn report.

recorded and patients consulting more frequently than three times during this quarter (the 'high users') were followed up over the succeeding two years.

Results

1. *The initial quarter*

The pattern of consultations is shown in table I. Of these consultations 1,412 (44 per cent) were for new episodes of illness. At 1,531 (48 per cent) consultations a prescription was issued and at 282 (9 per cent) a certificate. At 214 (7 per cent) consultations investigations of the 'direct access' type, *i.e.* x-ray, blood count etc. were made; at 114 (4 per cent) the patient was referred to a hospital outpatient or local authority clinic and in 26 instances (less than 1 per cent) the patient was admitted to hospital. Of the 26 hospital admissions, ten were to the local cottage hospital. Two thousand and seventy two (64 per cent) of the consultations were in the surgery, 1,014 (32 per cent) in the patient's home or in the local cottage and maternity hospitals and 128 (4 per cent) elsewhere or on the telephone. Consultation rates per patient at risk by age and sex for the quarter are shown in figure 3 and by Registrar-General class in figure 4. The consistently higher consultation rate for females compared to males has been well documented[5 6] except in the younger groups where males predominate.[7]

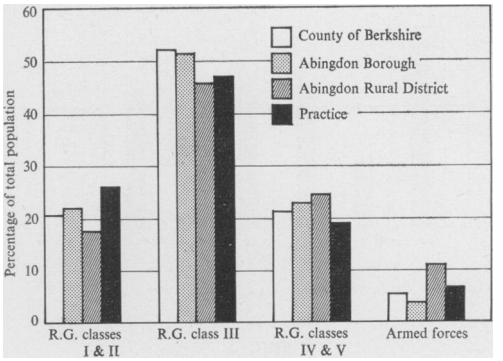

Figure 2
Registrar general (R.6) classification of practice and local comparison (census 1966[18])

TABLE I
CONSULTATIONS BY 1,136 PATIENTS DURING THE INITIAL QUARTER

	Diagnosis (Amended classification of disease[8])	*No. of consultations*
I	Infective	127
II	Neoplasm	20
III	Allergy, endocrine	42
IV	Blood	22
V	Mental	327
VI	CNS	194
VII	Circulatory	222
VIII	Respiratory	768
IX	Digestive	188
X	Genito-urinary	140
XI	Pregnancy	324
XII	Skin	110
XIII	Bones, joints	187
XIV	Congenital	12
XV	Infancy	18
XVI	Symptoms, ill defined	22
XVII	Accident, poisoning, violence	184
XVIII	Prophylactic	201
XIX	Administrative	106
		3,214

2. *High user groups*

One hundred and sixty-five (13.9 per cent) males in the practice accounted for 840

(64 per cent) of the male consultations. No social class was over represented in these 165 males except the Armed Forces, in which the high proportion of young children makes any high user–social class conclusion invalid. As one might expect, age groups 0–4 and over 65 were over represented.

Two hundred and sixty-five (21 per cent) of the females in the practice accounted for 1,310 (69 per cent) of the female consultations. Again the Armed Forces were over

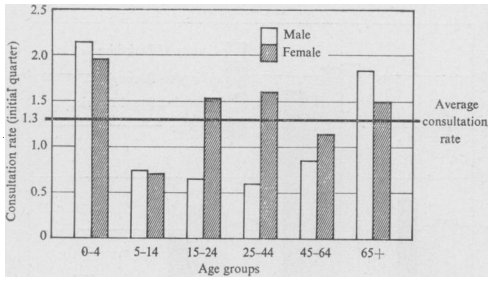

Figure 3
Consultation rate by age and sex

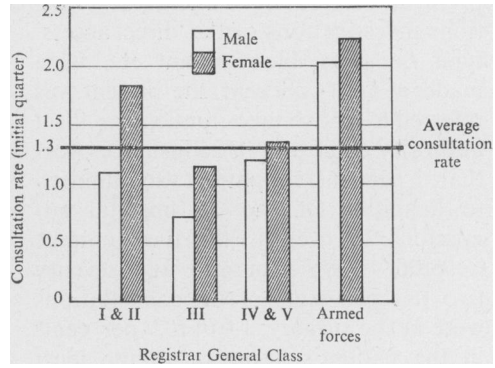

Figure 4
Consultation rate by registrar general's class[19]

represented, as were Registrar-General classes I and II (86 as against 67 expected). There was the expected preponderance of the young, the elderly and the child-bearing age groups. The principal single diagnosis made during the initial quarter in each of the 165 males and 265 females is shown in table II.

These diagnoses were tabulated at the end of the initial quarter according to the 1963 amended classification of disease of the Royal College of General Practitioners[8] as a base-line for the study of the succeeding two years and, in retrospect, some of the diagnoses turned out to be mistaken. Some of the patients, also, remained high users for reasons unconnected with the original diagnosis. For example, one man who consulted eight times during the intial quarter because of respiratory illness remained a high user because he developed a duodenal ulcer. The mental, psychoneurotic and personality disorder group of illnesses (category 5 of the amended classification of disease[8]) is probably under represented (the estimated prevalence rate of 91 compares with the average of 140 per 1,000 in the survey of Shepherd *et al.*[9]). A common cold, even if it appeared to be the leading symptom of a patient presenting for psychological reasons was ascribed to diseases of the respiratory system. 'Psychiatric associated conditions' which in other surveys[10] have included cases of peptic ulcer, asthma and hypertension were ascribed to the appropriate organic classification. In any case, the frequency with which neurotic disorder is diagnosed varies considerably between practices and is in part determined by the attitudes of individual practitioners to psychiatry[11].

3. *Individual high users*

High users according to diagnosis and those remaining high users (*i.e.* consulting more than 12 times a year for the following two years) are shown in table II. Respiratory and 'mental' (category 5 of the amended classification of disease[8]) disorders in men and pregnancy, respiratory and 'mental' disorders in women were responsible for the largest numbers of consultations during the initial quarter.

One hundred and ninety-four (25 per cent) of the consultations for respiratory disorders during the initial quarter were for upper respiratory tract infections. Twenty-one of the 53 males who were high users because of respiratory illness during the initial

quarter remained high users during the next two years, in five cases because of psychoneurotic disorder. Seven of the original 46 females remained high users. Of the original group only six males and three females remained high users because of chronic respiratory disease. A large proportion (six males; four females) of the others remained 'respiratory' high users because they repeatedly reported upper respiratory tract symptoms.

Twenty-three of the 49 'pregnancy' high users were high users during the following two years, in four cases for reasons connected with the original pregnancy, in 12 because of another pregnancy, in two for 'mental' and in five for other (respiratory, digestive etc.) reasons.

Nine of the 14 'accident' high users were high users during the following two years, in five cases (two males; three females) for 'mental' reasons.

Of the original 11 male 'mental' high users, one, who remained a high user, suffered

TABLE II

HIGH USERS AND TWO-YEAR FOLLOW-UP

	Number of patients		*Number of consultations during the initial quarter*		*Number leaving (dying in brackets) during next two years*		*Remaining high users (for mental reasons in brackets) during next two years*	
	M	*F*	*M*	*F*	*M*	*F*	*M*	*F*
I Infective	30	15	134	68	5	1	4 (3)	4
II Neoplasm	1	—	5	—	— (1)	—	—	—
III Allergy, endocrine ..	1	6	4	36	—	—	—	1 (1)
IV Blood	1	1	5	5	—	—	1	—
V Mental	11	45	105	200	2	14 (1)	4	22
VI CNS	9	11	41	52	3 (1)	2	1	—
VII Circulatory	4	22	29	131	1	3 (9)	2	7 (1)
VIII Respiratory	53	46	261	211	15 (1)	12 (1)	16 (5)	7
IX Digestive	7	12	32	47	— (1)	3	2	2
X Genito-urinary.. ..	1	14	4	66	2	3	—	1 (1)
XI Pregnancy	—	49	—	329	—	15	—	23 (2)
XII Skin	2	7	11	25	1	3	—	2
XIII Bones, joints	10	8	54	34	3	1	4 (2)	—
XIV Congenital	—	3	—	17	—	— (1)	—	1
XV Infancy	2	2	14	8	1	—	1 (1)	—
XVI Symptoms, ill defined	10	5	48	17	1	—	3 (1)	1
XVII Accident	8	6	39	22	—	—	3 (2)	1 (3)
XVIII Prophylactic	15	12	54	39	5	4	2 (1)	1
XIX Administrative ..	—	1	—	3	—	—	—	—
TOTAL	165	265	840	1,310	43 *i.e.* 39 (4)	73 *i.e.* 61(12)	58 *i.e.* 43(15)	81 *i.e.* 73 (8)

from psychotic illness and had been in a mental hospital. The remainder suffered from psychoneurotic disorders. During the two-year follow-up period one of them was referred to a psychiatric outpatient clinic, two left the practice area and a total of four remained high users. Case histories are given in table III.

Of the 45 original female 'mental' high users, one suffered from senile dementia and was admitted to, and later died in, a nursing home, and one, who remained a high user, suffered from psychotic illness and was admitted to a mental hospital for a time. The remainder suffered from psychoneurotic illness. During the two-year follow-up period two of them were referred to psychiatric outpatient clinics, 13 left the practice area and

TABLE III

CASE HISTORIES OF 'MENTAL' HIGH USERS

Case No.	*Sex*	*Age*	*Consultations during initial quarter*	*Consultations during next two years*	*Direct access investigations (initial quarter)*	*Separate new O.P.D. referrals during next two years*	*Present state*	*Remarks*
1	M	53	3	38	—	E.N.T.	unchanged	
2	M	48	10	39	3	Orthopaedic	unchanged	Depressive illness 1964, followed up by psychiatrist to April 1965
3	M	33	34	60	1	Orthopaedic, surgical, psychiatric, neurology, orthopaedic, neurology	unchanged	Laminectomy 1965, backache no better
4	M	31	11	47	1	E.N.T.	improved	
5	F	74	4	32	—		unchanged	
6	F	74	3	25	1	Accident	unchanged	
7	F	67	8	53	2	Chest	unchanged	
8	F	65	7	25	2		unchanged	
9	F	65	5	31	—	Eye, surgical	unchanged	
10	F	63	4	36	2	Chest, chest	unchanged	Old tubercle
11	F	60	5	26	2	Orthopaedic	unchanged	
12	F	59	3	24	2	Eye	unchanged	Psychiatrist March 1964 to March 1966
13	F	50	3	26	—		unchanged	
14	F	49	3	25	1	Skin, gynaecology	improved	Carcinoma *in situ* January 1967
15	F	47	3	28	1		unchanged	
16	F	46	3	29	1		worse	
17	F	44	12	35	—		improved	
18	F	42	3	27	2	Gynaecology	improved	
19	F	39	3	33	4	Obstetric	improved	Remained high user mainly by reason of pregnancy
20	F	35	3	24	1	Surgical, psychiatric	worse	Psychotic illness since November 1964
21	F	34	4	26	—		unchanged	Old tubercle
22	F	34	6	31	4	Medical, medical, psychiatric	improved	
23	F	33	3	27	1		improved	Saw psychiatrist 1964
24	F	32	5	30	5	Venereal disease, gynaecology	improved	
25	F	31	6	25	2		improved	
26	F	29	3	26	2		unchanged	

one changed to another doctor. A total of 22 remained high users; their case histories are given in table III.

Because the qualifying period, the 'initial quarter', was so short, only a proportion of the practice high users were identified. Even so, of the original group of 165 males and 265 females, 58 males and 81 females remained high users over the next two years, in the case of 18 male and 29 female patients by reason of psychoneurotic disorders (and one man and one woman because of psychotic illness).

The results show that even in a practice which is not psychiatrically orientated patients with chronic neurotic illness occupy a great deal of time; that women suffer more than men; that they tend to be high users of other medical services (though this is not so obvious as in other surveys) and that very few of them are referred to the hospital psychiatric services. None of this is new. The survey also shows, however, that the results of treatment of chronic neurotic illness in my practice are poor. After two years four of the nine male and 27 of the 30 female 'mental' high users remaining in the practice during the whole period were still high users and of these only one man and seven women could be said to be improved. One man had had a laminectomy which was, in retrospect, unwarranted, and he and several women had occupied considerable outpatient time without benefit. In only one other, the 'accident' high-user group, did so little improvement occur.

Discussion

It is no longer sufficient in general practice merely to seek to maintain high clinical standards; preventive care, the detection of disease in the silent stages and the identification of those whose need is greatest will become an increasingly important part of the work of the general practitioner. Before reorganizing general practice in such a way that time is created for these new commitments the nature and extent of the problem must be defined. In certain respects this has already been done. Many surveys, such as that carried out by J. T. Butler in Chester indicate a definite excess of medical need over medical demand, an excess which is greater among the poor[12]; the case for certain screening procedures in vulnerable groups in general practice has been established[13]; some of the problems that the future will bring, for example, those following the cure of cancer, can be measured[14].

However, with regard to chronic neurotic mental illness, the picture at present and for the future is much less clear, and the most that can be said is that the present problem is large, and seems likely to grow. If we are to devote more time to chronic neurotic illness, and there are those outside[15] and inside [16 17] the profession who believe we should, further studies of the different methods available for the treatment of the chronic neurotic patient would be valuable. Collecting morbidity statistics from different practices is not likely to help in the assessment of the value of each method, because of the lack of standardization. It would, however, be possible for individual practitioners to experiment with different methods in succession, and this survey may be regarded as a first step in such an experiment.

Summary

This preliminary study in a general practice of 2,500 patients shows that certain conditions, notably respiratory disease, pregnancy and psychoneurotic illness are the commonest reasons for consultation. The consultation rate for females is consistently higher than for males, except for the under-fives and over 65's, and females of Registrar-General classes I and II consult most frequently of all.

Patients suffering from psychoneurotic illness are most likely to remain high users of medical services and the disproportionate amount of time they consume is not

reflected in the results of treatment. Further studies to determine whether these results could be improved would be valuable.

Acknowledgements

I am grateful to Professor Richard Scott for his help and encouragement and to the Upjohn Foundation for a fellowship which enabled me to study in his department at Edinburgh. I am grateful also to Mr Michael Wadsworth and Dr John Last of Edinburgh University and Dr B. E. Juel-Jensen of Oxford University for their helpful advice.

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The bronchographic appearances of early chronic bronchitis. IAN GREGG, M.A., B.M., M.R.C.P. and DAVID H. TRAPNELL, M.A., M.D., M.R.C.P., F.F.R. *Br. J. Radiol.* 1969. **42,** 132.

The authors point out that it is now generally recognized that uncomplicated early chronic bronchitis cannot be diagnosed from an ordinary chest radiograph. Characteristic changes are found in bronchograms from chronic bronchitis, but bronchography has not previously been used in any investigation of the early stages of this disease. The authors describe the early stage of chronic bronchitis as a stage in the development of the disease in which there are symptoms due to an excessive secretion of mucus, but in which airway obstruction, if present, has never caused shortness of breath.

Studying 39 patients who answered to these criteria the authors found characteristic bronchograph abnormalities especially at the periphery of the bronchial tree. They do not suggest that all patients with a low PEF should be subjected to bronchography, but they do say that if evidence is produced by bronchography in patients being examined for the suspicion of other conditions, then these patients may be treated more efficiently and earlier than would otherwise have occurred. The real importance of this paper is probably the fact that a greater understanding of the pathology of early chronic bronchitis has been achieved.