Audit of a general practice

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SUMMARY. During a period of one full week, an analysis was made of the activities of patients (demand) and workers (service) in a suburban general practice. A data collection system was constructed and used by all the health centre workers. We sought to measure demand and service and to show the value of measurement (audit) of an aspect of service, i.e. prescribing.

Introduction

IN the primary care sector of the NHS there is a constant flow of demand from patients. Service is seen as merely stemming this flow. Poor record-keeping is almost inevitable, and the limitations imposed by this, with the feeling of pressure, makes stocktaking an unlikely activity.

Aims

Our aims were:

1. To study the types of contact between primary care workers and their patients.
2. To analyse the primary care services provided.
3. To demonstrate the value of recording baseline data in improving primary care services.

Method

A pilot survey was carried out for seven days (a full working week and a weekend on call) in a suburban group practice based mainly in a health centre in South Belfast. The practice includes 9,000 patients, reflecting the age, sex and social characteristics of the area, i.e. mainly social classes 2, 3, and 4, with a few from social classes 1 and 5.

Demand was defined as any contact made with the medical and paramedical staff of the practice and included direct face-to-face contacts as well as indirect contacts such as telephone calls and prescription requests.

Service was defined as all the primary care services supplied by the equivalent of four full-time general practitioners, one trainee practitioner, a district nurse, health visitor and social worker.

It was necessary to design and use a special form as the type of data required could not easily be extracted from the existing patient records. Each worker completed the appropriate section of the form for every patient/worker contact, direct or indirect, for the whole of the survey week.

There were three main elements in the form used for data collection:

1. Basic demographic data

The reception staff recorded this information including the NHS number. This made it possible to trace forms for any patient appearing more than once during the survey week.

2. Demand by the patient

Each patient/worker contact was summarized by recording the tasks that resulted from the problems posed by the patient. These tasks included activities such as history-taking, scrutiny of the patient's records and physical examination. An attempt was made to classify the problems using the headings major, minor and trivial, each being subdivided into acute and chronic.

3. Service to the patient

The supply of services to the patients was recorded on the form, with the question of whether the service could have been performed by some other member of the primary care team.

The classification of the contact followed the

Table 1. General morbidity pattern—all contacts (percentage of totals).

Classification	First contacts	Subsequent contacts
Respiratory	21.1	13.1
Mental	12.5	9.4
Circulatory	9.4	9.4
Skin	6.6	10.5
CNS	6.9	6.3
Musculoskeletal	6.3	2.1
Prophylactic procedures	5.3	4.7
Blood	4.5	7.3
Digestive	5.1	3.1
Infective	3.6	4.2
Genitourinary	3.6	2.6
Accidents	2.6	4.2
Ill-defined	2.1	5.2
Endocrine	2.6	1.1
Routine HV investigations	2.3	2.6
None	2.1	1.6
Routine support (incl. postnatal)	0.9	6.8
Social	1.1	3.7
Other	1.6	2.1
Total	100.0	100.0

International Classification of Diseases (World Health Organization, 1967). Routine antenatal visits to general practitioners were included in prophylactic procedures. Where nothing abnormal was discovered or no diagnosis was made, this was recorded. A code was added to indicate whether the problem was a new one, an old one recurring, or whether the diagnosis was provisional. Variability between workers in the use of categories, ratings, and codings was forestalled by practice discussion sessions. After two pilot trials, the workers found little difficulty in completing the form accurately and quickly.

Results

1. Demand—types of contact between patients and primary care workers

During the survey week 869 patients made contact with the health centre workers; 35 of them did not arrive or were not at home when visited. The remaining 834 patients made an average of 1·19 contacts each. The total number of diagnoses recorded were 1,234, or 1·25 per contact.

Direct patient/worker contacts (consultations and home visits) account for 67·3 per cent of all contacts, while such indirect contacts as telephone calls and prescription requests account for the remainder. If the contacts with general practitioners are treated separately, the proportion of direct contacts is 60 per cent.

Table 2. Classification of chronic problems (percentage of chronic cases).

Classification	Major	Minor	Trivial
Mental	36.8	61.5	1.7
Circulatory	70.8	29.2	—
Musculoskeletal	58.0	40.0	2.0
Blood	43.5	56.5	—
Digestive	43.6	56.4	—
Endocrine	53.6	46.4	—
Total	51.6	47.7	0.7

The 869 patients who made contact for the first time during the survey week were seen by the general practitioners in 86·7 per cent of cases and by other workers in the remainder. Of the 105 patients who made a subsequent contact in the survey week only 62·3 per cent were made with the general practitioner. This supports the observation that the general practitioner is the main provider of first-contact primary care services.

The location of the contacts shows that the general practitioner saw less than 15 per cent of patients at home; the total rate of home contacts for other workers amounted to over 20 per cent in each case.

Table 1 shows the general morbidity pattern for all contacts by patients with all workers. Further study of the details of age, sex, and diagnostic categories of the patients shows that the figures are similar to those of the National Morbidity Survey (OPCS, RCGP and DHSS, 1974). By including the column on subsequent contacts in Table 1, some idea of further care is indicated. For example, disorders of the respiratory system form 20 per cent of first contacts, and 13 per cent of subsequent contacts.

Of all contacts with patients, 52·7 per cent of the problems rated as chronic in this survey. Table 2 shows those body systems in which a higher than average percentage of chronic problems occurred. Many of these categories contained problems rated as being major. These often had serious implications, but it should also be noted that chronic problems rated as minor, although not having such clinical consequences, nevertheless required considerable continuing care.

2. Service to the patient

The questionnaire contained four questions:

1. "In your opinion, could the assessment you made of this case have been best made by a general practitioner, practice nurse, district nurse, health visitor, or social worker?" This question, with the inclusion of the word "best" lacked discrimination in that it elicited the answer "the general practitioner".

2. "Does this case require further care?". The general practitioners recorded that just over half of all their first

Table 3. First contacts—direct and indirect—with general practitioner only.

	Period of further care required																	
	0		1 week		2 weeks		3 weeks		1 month		2 months		3 months		> 3 months		Dependent*		Total	
Major acute	9	—	10	—	9	—	1	—	3	1	3	—	—	—	9	1	—	—	44	2
Major chronic	8	3	4	—	2	—	2	—	14	1	3	—	5	3	91	80	2	—	131	87
Minor acute	169	69	18	3	10	4	—	—	8	3	—	—	2	—	1	—	1	—	209	79
Minor chronic	42	36	3	—	1	1	1	—	15	4	6	6	8	2	49	87	—	—	125	136
Trivial acute	48	16	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	49	18
Trivial chronic	5	3	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	5	5
NR[1]	32	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	32	9
Total	313	136	36	4	22	5	4	—	40	9	12	6	15	5	150	170	3	1	595	336
Percentage	*52.6*	*40.5*	*6.1*	*1.2*	*3.7*	*1.5*	*0.7*	*0.0*	*6.7*	*2.7*	*2.0*	*1.8*	*2.5*	*1.5*	*25.2*	*50.6*	*0.5*	*0.3*	*100*	*100*

* Further period of care uncertain.
[1] Not recorded.
The number of direct contacts is given first in each column.

Table 4. Opinions of the team on the source of further care needed by 482 patients.

Worker	*Number*	*Percentage*
General practitioner	447	*92.7*
Clinic nurse	7	*1.5*
District nurse	1	*0.2*
General practitioner and social worker	3	*0.6*
General practitioner and health visitor	3	*0.6*
General practitioner and district nurse	3	*0.6*
General practitioner and clinic nurse	5	*1.1*
General practitioner district nurse and clinic nurse	1	*0.2*
General practitioner and hospital	4	*0.8*
Hospital	8	*1.7*
Total	482	*100.0*

contacts (direct and indirect) did require further care.

3. "If the answer to question (2) above is yes, for how long will this case require further care?" Over one third of the total first contacts were judged to require further care for over three months (Table 3). The analysis showed the high number of minor and acute conditions that do *not* require further care. It is important that, while self-limiting, these conditions provoke considerable diagnostic activity.

Major and minor chronic conditions, as might be expected, require further care; indeed, over one third of total contacts came within these chronic categories and require further care for over three months. One quarter of all direct contacts made with the general practitioner were for chronic conditions whether rated major or minor; one half of all indirect contacts made with the general practitioner were for chronic conditions whether rated major or minor; and almost half of major chronic conditions that will require care for more than three months are being dealt with indirectly by the general practitioner, mostly by repeat prescription. Almost two thirds of minor chronic conditions that will require care for more than three months are being dealt with indirectly by the general practitioner, again mostly by repeat prescription.

4. The following question was asked in order to find out how and by whom further care would be delivered: "As far as you know, will this care be carried out by a general practitioner, practice nurse, district nurse, health visitor, or social worker?"

Over half of patient/worker contacts required further care, 90 per cent of which was to be carried out by the general practitioner (Table 4). Over one third of all contacts (321) were considered to need care for more than three months, 171 of whom suffered from major chronic conditions and 136 from minor chronic conditions.

The general practitioners saw themselves providing further care for over 90 per cent of these cases and yet half the contacts were indirect. This meant, in effect, that further care would be in the form of repeat prescriptions, little use being made of the paramedical workers.

Balint and his colleagues (1970) have shown that a significant number of 'repeat prescribers' will not tolerate any disturbance of their pattern of contact with their doctor. These patients may receive prescriptions for many months. It seems likely that some of the indirect contacts, handled by repeat prescriptions only, belong to this category.

3. *Value of baseline data*

A detailed analysis of prescribing shows the value of stocktaking in that the amount and type of prescribing current in the practice can be seen at a glance.

Medications prescribed were similar in type and amount to those reported in other studies (Berkeley and Richardson, 1973). During the survey week a total of 900 prescriptions were written, an average of 1·07 per patient/worker contact (direct and indirect) and 0·87 per diagnosis.

Prescriptions issued directly and prescriptions issued for the first time both amounted to just over half of the total number of prescriptions issued. Prescriptions issued directly to the patient by the general practitioner in face-to-face, first-time contacts (375) reflect the typical consultation where the patient presents a problem, for example, a bruised muscle; it is assessed and medication prescribed. Similarly, prescriptions issued directly to the patient by the general practitioner in second or subsequent face-to-face contacts (130) also reflect a typical situation where the patient presents again with a problem such as congestive cardiac failure. The condition is reassessed and medication renewed, or adjusted if necessary.

Prescriptions issued indirectly to the patient by the doctor (usually via receptionists) for the first time amount to 125 or almost 14 per cent of the total issued for the whole survey week. Close examination of these suggests that these patients seem to have defined their problem to their own satisfaction, for example a head cold, and perceive the general practitioner as the source of the remedy, in this case, a decongestant tablet. Both sides seem to accept this situation, which has elements of convenience and time-saving. The majority of these conditions are self-limiting and minor.

Prescriptions issued indirectly to patients by doctors, usually via the receptionist and for the second or subsequent time (repeat prescriptions), amount to the high figure of 30 per cent of the total prescriptions issued for the whole survey week. A proportion of these patients are receiving categories of drugs, insulin and digoxin for example, which may be replenished at regular intervals without the patient being seen every time. However, many of the patients who are receiving repeat prescriptions indirectly are receiving psychotropic drugs. Analysis of the data collection forms of these patients shows that their problems have been largely rated as chronic and that their condition will require further care, usually for more than three months. The general practitioners see themselves as providing this further care personally (Table 4). In practice, however, this supervision amounts to little more than repeat prescribing.

Conclusion

This survey has been concerned with an audit of demand by patients and of services (including prescriptions) offered to them.

The method of data collection and analysis enables quantification of demand in relation to practice resources, and indicates the services currently meeting specific needs. By measuring the nature of demands made and the constraints of supplying appropriate services, the workers can begin to set their own objectives.

Discussion by the workers of findings such as those outlined above could result in a setting of objectives that would result in the more efficient use of primary care resources.

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Predicting child abuse: signs of bonding failure in the maternity hospital

Fifty children referred to the Park Hospital because of actual or threatened abuse were compared with 50 controls born at the same maternity hospital. Five factors were significantly more common in the abused group than among the controls: (a) mother aged under 20 at birth of first child, (b) evidence of emotional disturbance, (c) referral of family to hospital social worker, (d) baby's admission to special care baby unit, (e) recorded concern over the mother's ability to care for child. Thirty-five of the abused group had two or more of these factors compared with only five of the control group.

As these data were collected from information recorded routinely at the maternity hospital, it is possible to identify most abusing families when the child is born. Such identification must lead to a comprehensive assessment of each case followed by constructive preventive action.

Reference

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