

Effect of information about waiting lists on referral patterns of general practitioners

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SUMMARY. In a two year trial general practitioners in the West Midlands were provided with extended waiting time information for hospital consultation and treatment in general surgery. Selected general practitioners were sent monthly bulletins on comparative times to wait for both outpatient appointment and inpatient treatment throughout the region. Their referrals to consultant general surgeons were monitored, alongside those of a matched control group not receiving such information. Differences were found between the two groups which indicate the willingness of general practitioners to change their referral practice when adequate information is available. In addition, patients referred to their local hospital had longer waiting times than patients matched for clinical condition and district of origin who were sent to hospitals where it was indicated that a shorter wait might be expected.

Introduction

IN a Marplan opinion poll,¹ commissioned by the National Association of Health Authorities and the *Health Services Journal* early in 1988, 38% of people questioned said they would be willing to travel anywhere in the UK for hospital treatment if this would avoid having to wait. An almost equal proportion (35%) said they would be happy to go 25 miles to a neighbouring district. Given this apparent willingness of patients to travel it is interesting to consider the attitudes of general practitioners to referring outside their normal locality.

Studies of general practitioner referral have concentrated on differences in referral rates and possible explanations for the wide distribution. Wilkin and Smith² reported a fourfold difference between their study groups of low and high referrers, with the characteristics of neither patients nor general practitioners appearing to account for such a variation. These wide differences in referral rate with no obvious cause have been confirmed by other studies. Crombie and Fleming,³ reporting on rates from the second and third national morbidity studies, noted that these differences were consistent for individual practices over a 10 year period and gave support to the notion of personal referral thresholds. Cummins and colleagues,⁴ in suggesting such thresholds, saw them as dependent upon a variety of personal attitudes, beliefs and knowledge.

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Although little work has been done on referral destination in relation to waiting times, it seems likely that similar individual differences in attitudes, beliefs and knowledge would have their effect. Acheson⁵ noted an inverse relationship between distance of residence from hospital and chances of attendance. Such a relationship would seem to militate against general practitioners referring out of their locality unless asked to do so by the patients themselves. Patient choice is an important factor in certain referral decisions as Fraser and colleagues⁶ showed in their study where 20% of general practitioners' referrals were for private consultation, 14% being requested after receipt of the NHS appointment date.

Factors considered by general practitioners when referring a patient were studied by Dowie,⁷ and it was clear that knowledge of consultants' special interests, expertise and style of work was taken into consideration when available. Various strategies to cope with long waiting times were also noted, such as telephoning for an earlier appointment if a case was judged to be urgent, or referring by open letter requesting the earliest available appointment. General practitioners were seen as reluctant to refer to unknown hospitals and consultants.

This study in the West Midlands looked at general practitioners' attitudes to referral outside their normal locality, and information that might make such referral more acceptable to them. The feasibility of making such information available was studied alongside its effects upon actual practice.

Method

From a brief analysis of general surgical treatment in hospitals throughout the region (hospital activity analysis) it was established that individual general practitioners refer 20 non-emergency patients for hospital surgery on average during the course of a year. On this basis, a minimum of 40 general practitioners would be necessary to produce statistically valid results of a 5% trend towards referring patients to another district, when information on waiting times was supplied.

Awareness of high drop-out rates in studies of this nature led to a proposed recruitment of 200 general practitioners in two groups, one experimental and one control.

Selection of general practitioners

District statistics on general surgery throughout the region were examined and three groups distinguished; eight districts with a high mean waiting time of 53 weeks; eight districts with a mean waiting time of 39 weeks; and six districts with a low mean waiting time of 27 weeks. It was predicted that the greatest movement of patients would be from districts with a high waiting time to those with a low waiting time and it was thus decided to invite the general practitioners from these 14 districts to participate in the study.

The research design called for an experimental group of 100 general practitioners from districts experiencing high waiting times; a control group of 50 doctors drawn from the same districts; and a further control group of 50 doctors from districts with low waiting times. General practitioners were selected for participation on the basis of four characteristics: the size of the practice from which they worked, the socioeconomic profile of the area from which they drew their patients (West Midlands Regional Health Authority, unpublished report, 1986), their sex

and their race. Details of these four criteria were obtained for general practitioners throughout the region, making the selection of a quota sample possible although only 14 of the region's 22 districts were involved.

On the basis of a trial mailing, three times the desired sample was drawn at random from those fulfilling the necessary criteria. General practitioners in the experimental group were matched with controls using the selection criteria. Doctors in the districts with high waiting times had been randomly assigned to the experimental or control group before recruitment. Over the course of several months 200 general practitioners agreed to participate in the study. In all 897 general practitioners were invited to take part in the study, some when it became necessary to replace doctors who formally withdrew. However, as it was impractical to replace those who withdrew during the latter half of the study because of the time taken for recruitment, sample numbers fell by 25% in both experimental and control groups.

Information received by participants

All participating general practitioners received monthly bulletins giving information about inpatient and outpatient waiting times for general surgery. Those in the experimental group received information for the whole region while those in the control groups received information for the districts to which they normally referred.

To enable the experimental group to make the best use of information about waiting times they alone were provided with additional back-up material. The project team compiled a booklet listing all consultant general surgeons in the region by district and by special interests, indicating as far as possible general principles of management of patients and lists. Those operations not normally undertaken by consultants were noted as well as those areas where they had a special interest. The number of clinic sessions and any special selection criteria were indicated as well as operations which were experiencing longer times on the waiting list than others.

A survey of information available on waiting times in districts throughout the region indicated that whereas family practitioner committees frequently took the responsibility for informing general practitioners about likely waiting times for outpatient appointments, information about possible time spent on a waiting list was never formally presented, and was usually only available through a specific enquiry to a consultant's secretary. It was therefore thought important that the information made available to experimental general practitioners should include both length of time to wait for outpatient appointment and projected waiting time for treatment. It was made clear to doctors participating in the study that the information which they would receive would not enable them to inform an individual patient how long he or she would have to wait for treatment, but should be used as a guide to comparative times in the region when discussing possible referral destinations.

Data collection

To detect the effect of information upon the referral practice of general practitioners and the time waited for treatment by their patients, all general surgical referrals made by participating general practitioners were monitored. The general practitioner completed a three part form giving brief details of the consultation, any outpatient appointments, and information about hospital treatment. As well as asking for basic information such as the patients' age, sex and medical condition, the form asked general practitioners to indicate whether or not they discussed with patients which hospital and consultant they should be referred to, and whether the patient was willing to be interviewed

at a later date about their experience of waiting for treatment. The data were returned monthly. Lapses in the provision of data for three consecutive months were followed up, initially by letter.

The participants' responses to the study and the implications which they thought it would have for services if information of this kind were made generally available were determined by questionnaire.

Participating general practitioners were asked to complete questionnaires prior to receiving the monthly bulletins as well as at the end of the trial. A further matched control group of general practitioners contacted at the end of the study was sent a questionnaire which was a composite of those completed by participants.

Two other interested groups — consultants and patients — were given the opportunity of commenting upon the study and its effects. Consultants were sent a questionnaire asking for their views and patients were interviewed. These results and further details about the general practitioner questionnaires and about the patients have been reported elsewhere (West Midlands Regional Health Authority, unpublished report, 1989).

Results

The study monitored general surgical referrals over 24 months although most of the 232 general practitioners participated for a considerably shorter period of time — mean period of participation 10 months, range one to 24 months. The mean number of referrals about which details were returned was two per general practitioner per month. After the study, general practitioners indicated the percentage of patients referred for general surgery for whom they had completed details. Thus 47% felt that this was at least 75%, although 14% admitted to 25% or less. Checking with regional statistics on hospital treatment, it would indeed seem that the sample of general practitioners returned less information than would have been expected. Over the two years of the study 2877 referrals were monitored; 2090 through to treatment.

Referral practice

The proportion of general practitioners in each of the groups sending patients outside their own district over the course of the study is shown in Figure 1 together with the extent to which this might be expected because of the location of the practice in relation to the hospitals. Three types of referral are noted: 'expected' referrals are those of general practitioners with easier access to a hospital outside their own district than one within; 'understandable' referrals are those of general practitioners with equal access to hospitals inside and outside their own district; 'unexpected' referrals are of most interest — general practitioners refer to a hospital outside their district although the most accessible hospital is within their district. Clear differences can be seen between the behaviour of the three participating groups, particularly for unexpected referrals, which in the experimental group may be attributed to the effect of increased information being made available. The high percentage of unexpected referrals made by the low waiting time group during the study was also reflected in the pre-study questionnaire data.

The monitored referral practice was compared with self-reported referral practice from the pre-study questionnaire (Figure 2). Although the sources for these data are different and thus not directly comparable, there is a clear pattern of apparent changes in referral practice within the experimental group over the period of the study.

Table 1 indicates the destination of referrals made by the three study groups. Although the highest percentage of referrals within their own district was made by the experimental group, patients

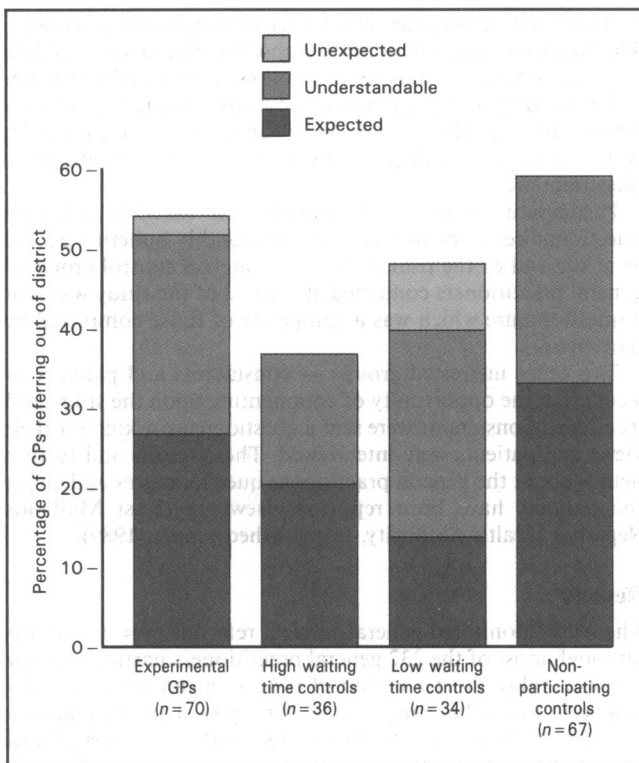


Figure 1. Percentage of general practitioners referring patients to hospitals out of their own district during the study period.

referred to other districts were better placed than those of the controls in high waiting time districts. An examination of the data for individual general practitioners revealed that some general practitioners in the experimental group changed their practice, as reported in the pre-study questionnaire, from referring out of the district to another high waiting time area, to refer-

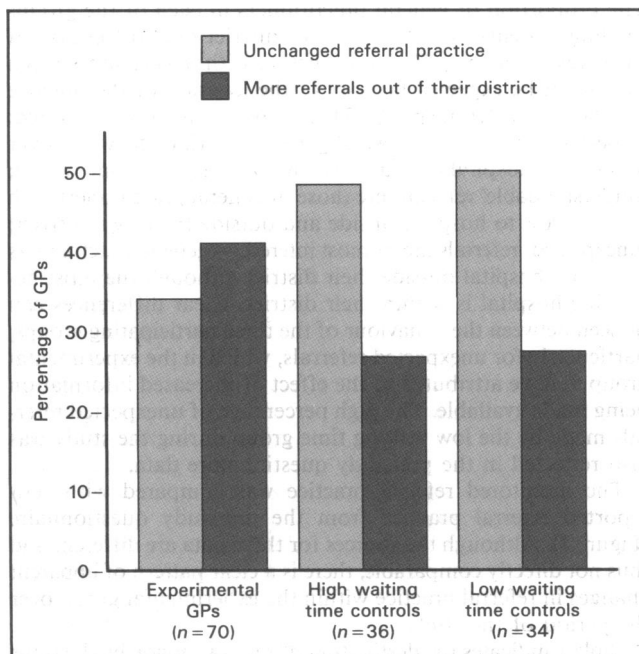


Figure 2. Comparison between pre-study and monitored referral practice.

Table 1. Destination of 2819 monitored referrals.

Group	% of referrals to:		
	High waiting time district	Low waiting time district	Own district
Experimental GPs (n = 1524)	6	9	85
High waiting time controls (n = 637)	18	3	79
Low waiting time controls (n = 658)	5	36	59

n = total number of referrals.

ring locally again, suggesting that they were making use of information in the bulletins. Of the 1379 patients receiving in-patient treatment while being monitored by the study 10% travelled over 15 miles and 4% over 30 miles.

Patient waiting times

Table 2 indicates the waiting times experienced by two samples each of 30 patients: those referred out of their own district to one with shorter waiting times; and the same number of patients referred inside the district chosen at random from those matched for clinical condition and geographical area. It can be seen that patients referred out of their own district had shorter mean waiting times.

Table 2. Waiting times for patients referred to districts where lower waiting times could be expected compared with their own district.

	Waiting times (weeks) for patients:	
	Referred within district (n = 30)	Referred out of district (n = 30)
Mean wait for outpatient appointment	13	8
Mean wait to end of treatment	24	19
Overall range of waiting times	3-79	1-57

n = total number of patients.

Response to questionnaires

In the pre-study questionnaire the majority of the 232 general practitioners (89%) stated that the primary basis upon which they made most referrals was geographical location, preferring a local hospital where possible. The second most important determinant was the knowledge of the consultant (84%). In most cases consultants best known would be those in the local hospital. The patient's choice of hospital and consultant was held to be important by less than a quarter of general practitioners (21%).

In the second questionnaire general practitioners were asked if they felt their own referral practice had changed over the study period and over a third of the 167 doctors responded positively (35%). Some felt that these changes were mainly as a result of the present study (19%), although other reasons were given such as a response to changes in local provision (22%) and an in-

creased demand for private referral (27%). Of the 70 doctors in the experimental group nearly a third (32%) felt that they had made referrals outside their districts which they would not previously have made as a result of information in the study bulletins.

All 167 general practitioners found referral outside their own districts acceptable practice in some situations. Many believed they would respond positively to patient demand for referral to another district (82%), while problems in the local hospital were seen as a stimulus to such action (66%). However, only 5% of general practitioners actually discussed the possibility of travelling for treatment with more than 50% of their patients, while 55% discussed this possibility with fewer than 5% of patients. Only 16% of general practitioners felt that patients' responses to the idea of travelling for treatment were largely positive, and this was for many in keeping with their expectations (66%). However, nearly a third of the 309 patients contacted stated that they were aware that they could be referred out of the district. Of the 62 patients still waiting for their outpatient appointment or for treatment at the end of the study period, 58% said they would be prepared to travel if it meant that they would be seen earlier, and 36% were prepared to travel over 30 miles. However, 25% of those prepared to travel would only travel up to 10 miles.

As a result of data analysis carried out for an interim report on the study in October 1987 it was recognized that the bulletins were seen by a number of general practitioners as inadequate since individual consultant waiting times were not available. Many general practitioners indicated that they had made more use of the information packs on individual consultants sent out at the beginning of the project. It was also clear that to provide reasonably accurate and helpful information to the general practitioner a monthly bulletin was not necessary. Little change in mean waiting times for a hospital was observable on a monthly basis, except where changes in management were involved, such as the appointment of a new consultant or opening of new facilities. Therefore, an initial directory of consultants with a guide to their practice and waiting times, and with a system for updating information at six monthly intervals (or as necessary), was suggested. Feedback from the second questionnaire suggested that the system should be extended to include ear, nose and throat, gynaecology, ophthalmology and orthopaedics as well as general surgery.

Discussion

The white paper *Working for patients*⁸ introduces the concept of health authorities and budget holding general practitioners contracting with hospitals to provide services for their populations and patients. It is envisaged that budget holding general practitioners, and perhaps non-budget holders by arrangement with their health authority, will be able to use residual sums of money to place contracts at marginal cost with hospitals with spare capacity on behalf of individual patients requiring non-emergency surgery. Clearly this would frequently involve the referral of such a patient to a hospital outside the normal experience of the general practitioner and some distance from the patient's home. This study gives some insight into the acceptability of this pattern of care to both doctors and patients.

The findings of this study suggest that keeping both the providers and consumers of services aware of their own locality's waiting times in relation to others would not initiate a large movement of patients from one area to another. Obviously criteria such as the patient's condition and the ability to travel are uppermost in the mind of the general practitioner when considering referral, although patient perceptions sometimes appear

to differ on these points. What seems to be most important is that the general practitioner has access to accurate information so that when suitable patients present themselves, travelling further for quicker treatment can be discussed and an effective choice made.

It is apparent that where there is an absence of accurate information, many patients have been referred to districts that can offer them no improvement in waiting time. However, there were a number of general practitioners in the experimental group who on receipt of the monthly bulletins stopped referring patients outside their own district to adjacent ones where the situation was no better. Effects of this nature make it more difficult to assess the impact of waiting time information by looking for a simple increase in cross-boundary referrals.

That improved waiting times can be achieved if referral is made from a district with a high waiting time to one with a low waiting time is clear. Given that 36% of patients awaiting treatment in this study said they were prepared to travel over 30 miles, it is perhaps surprising that of those patients treated during the study only 10% travelled over 15 miles and 4% over 30 miles. It is also surprising that general practitioners expressed the view that the majority of their patients would not wish to travel far.

This study indicates that the provision of standardized waiting time information over the region would result in some changes in general practitioner referrals. The waiting list data collected over the two year study period show that large monthly variations are not the norm. It would thus not seem necessary to make monthly figures available to general practitioners. However, it is clear that many general practitioners feel individual consultant data is essential if they are to act upon comparative information on waiting times, and that the climate is now such that its provision would be seen as acceptable. Clearly, when contracting for services, general practitioners would also need details of cost, and assurances about the quality of service which would initially include the general results of audit and eventually a standardized outcome indicator. With such information general practitioners' reluctance to refer out of their own locality could be overcome. However, any freedom to refer further afield will always be limited by the clinical condition and personal circumstances of the patient.

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