

Avoidable referrals? Analysis of 170 consecutive referrals to secondary care

Glyn Jones Elwyn, Nigel C H Stott

Abstract

Objective—To determine appropriateness of referrals from primary care to secondary care.

Design—Retrospective evaluation of appropriateness of referrals from a singlehanded general practice: evaluations carried out independently by referring doctor and by second general practitioner who worked in same area and had access to similar secondary care services.

Subjects—168 referrals made between 1 October 1990 and 31 March 1991 and followed up for up to 12 months by matching with available information on outcome of episode of care.

Main outcome measures—Appropriateness of referral and reasons for inappropriate referrals.

Results—110 referrals were agreed to be appropriate and 58 were considered avoidable. The reason for 32 of the inappropriate referrals was lack of resources: 10 were due to lack of information (mainly failure of hospitals to pass on information to general practitioner), nine were due to a deficient primary health care team; five were due to insufficient use of home care nurses, three were due to absence of direct access to day hospital, and five were due to lack of access to general practitioner beds or other facilities. Most of the remaining 26 avoidable referrals were because available resources had not been fully used, because recognised management plans had not been followed, or because of lack of skills to perform certain procedures.

Conclusions—Many theoretically avoidable referrals were due to managers' and politicians' decisions about allocation of resources, but some inappropriate referrals could be avoided by assessment of general practitioners' needs for further knowledge and skills.

Introduction

Referral rates for general practitioners vary widely even among doctors working in the same environment. Satisfactory explanations for such variation are elusive, even when medical education, sociodemographic features, morbidity, and deprivation indices are controlled for.¹ It appears that general practitioners exhibit wide individual variation, which can be partly explained by chance² and partly by context and individual approaches to health care.³

What is appropriate health care? What is an appropriate referral? These are complex questions that are viewed from differing perspectives by health care professionals, individual members of the public, and society as a whole. There is a difference between appropriateness at the population level, which is always constrained by resources, and at an individual level, which is modified by the patient's characteristics and preferences or values.⁴ The interplay of doctor, patient, illness, and context is well understood in

family medicine, where individual diagnosis is only one facet of clinical understanding.⁵ It therefore comes as little surprise that variation in referral rates among general practitioners in Cambridge could not be explained by inappropriate referrals and that guidelines would have made little difference.⁶

This study is the result of a singlehanded general practitioner's wish to determine whether any of his referrals could be deemed avoidable and what the reasons were for such referrals. The study is pragmatic in that it relates to the clinical realities in a singlehanded practice, where the context is as important as the content.

Method

Copies were made of all referral letters sent from a singlehanded practice between 1 October 1990 and 31 March 1991. The practice consisted of 1800 patients, mainly of low socioeconomic status living in a multi-ethnic inner city area. Patients' medical records were searched for the outcome of the referral: any correspondence from outpatient departments or hospital discharge letters were copied and linked with the original referral letter until the episode of care was completed or for up to 12 months after referral. Some records were not available because patients had died (18) or had registered elsewhere (five); it was not necessary to search for these records because the aim of the study was to focus on the reasons for any avoidable referrals rather than the rates of referral.

The referrals were evaluated independently by the referring doctor (GJE) and by a second doctor who worked in the same locality and had access to similar secondary care services (NCHS). Evaluations were made with an agreed questionnaire (see box), and the second doctor's role was to be as questioning as possible. The study's design meant that decisions were weighted towards classifying referrals as avoidable because the critical judgments were made when the outcome of each referral was available.

Results

In the six months of the study 170 referrals had been made. The general practitioner had been the prime instigator of 167 of the referrals, and patients had played a substantial role as co-instigators of 13 of the referrals. Assistance with management was requested in 159 cases, and diagnostic help was requested in 64. One referral was for an appliance, and one was to provide a "breathing space" for the general practitioner. Waiting times varied greatly between specialist departments, but the average waiting time was 9.6 weeks. Fifteen patients did not attend their outpatient appointment.

Two referrals were excluded from the study because the second evaluator (NCHS) thought that there was

Loudoun Square Health Centre, Cardiff CF1 5UZ
Glyn Jones Elwyn, general practitioner

Department of General Practice, University of Wales College of Medicine, Cardiff CF3 7PN
Nigel C H Stott, professor of general practice

Correspondence to:
Dr Jones Elwyn.

BMJ 1994;309:576-8

Questionnaire for audit of referrals

- Name of patient:
 Audit No:
 Date of referral:
 Specialty:
 Prime instigator of referral:
 General practitioner
 Patient
 Other (specify)
 Not clear
 Prime motive for referral:
 For diagnosis
 For opinion
 For investigation
 For management
 For appliance
 For "breathing space"
 For other opinion
 Not clear
 Time before patient seen at outpatient department (to nearest No of weeks):
 If patient's notes not available:
 Not currently registered
 Dead
 Seen as temporary patient
 Outcome of process:
 Patient not yet seen
 Patient seen with good outcome*
 Patient seen with mediocre outcome
 Patient seen with poor outcome
 Could referral have been avoided and if so how?†
 ● No—appropriate referral for following reasons:
 Need for specialist skills or procedure
 Need for specialist knowledge
 Need for specialist tests
 Need for other perspective or opinion
 ● Yes—problem could have been managed in primary care if:
 Doctor had more skills
 Doctor had more knowledge
 Doctor showed different attitude
 Doctor had access to other resources
 ● Comment (how problems could have been managed in primary care):
 *Appropriate benefit to patient or general practitioner with good communication and appropriate follow up.
 †To be completed by both evaluators.

insufficient information on which to base a judgment. In 124 of the remaining 168 cases we independently agreed on the appropriateness of referral. In 44 cases we discussed the independent evaluations and reached agreement: in 32 cases the referring doctor changed his categorisation to agree with the second evaluator (NCHS), and in 12 cases the second evaluator changed categorisation when context sensitive information was provided. We both felt that this process of discussing and agreeing categorisation was a valuable educational exercise.

The table summarises the evaluation of the referrals: 110 were agreed to be appropriate, and 58 were considered avoidable. Of the 32 inappropriate referrals that were considered to be due to lack of resources, 10 were because of a lack of information (mainly the

Evaluation of appropriateness of 168 referrals of patients to secondary care by a general practitioner. Values are numbers (percentages)

Reason for referral	Referral appropriate	Referral avoidable
Specialist skills or procedure	54 (32)	7 (4)
Lack of knowledge	13 (7)	7 (4)
Lack of resources	12 (7)	32 (19)
Other perspective or view	31 (18)	12 (7)
Total	110 (65)	58 (34)

failure of hospitals to pass on information to the general practitioner about a previous referral or contact); nine were due to a deficient primary health care team (mainly the lack of a community psychiatric nurse, but the lack of a health visitor and a dietitian accounted for one referral each); five were due to insufficient use of home care nurses (leading to premature involvement of a palliative care consultant); and eight were due to lack of direct access to facilities (day hospital (three referrals), general practitioner beds (two referrals), and other facilities (three referrals)).

The general practitioner's attitude contributed to 12 avoidable referrals. In most of these cases available resources had not been used. In two cases hypertension that required further control was not managed to its full extent in general practice. In four cases there was a failure to explore a patient's beliefs and concerns about their problem: this also led to non-attendance at secondary care. Insufficient reassurance was given for two patients with self limiting problems (an infant with facial warts and a young child with obstructed tear duct): parental pressure to refer had been applied, but the problems had resolved before an appointment at outpatient department had been issued and the patients did not attend at the specialist clinics. A need for more knowledge was identified in seven cases, when failure either to know or at least to follow a recognised and readily available management plan led to avoidable referrals.

The need to acquire certain skills was identified in seven avoidable referrals. Three patients needed proctoscopy, and disposable proctoscopes should have been available in each examination room. Expertise in cleaning the auditory canal (two cases) and cryotherapy for warts (two cases) were also unavailable in the practice at the time of the study.

Discussion

Of the referrals studied, 34% were deemed to be avoidable in this singlehanded practice. Most of the avoidable referrals were caused by a lack of resources (32/58 (72%)). It should be noted, however, that 22 of these referrals were really only theoretically avoidable—for example, not having access to a community psychiatric nurse meant that the failure to refer within primary care was unavoidable. Nevertheless, theory could so easily be translated into practice provided there are real shifts in resources towards general practitioners.

Ten of the avoidable referrals were due to inadequate hospital information about earlier contacts with the patient (see box for examples), confirming the potentially high costs that can result from poor communication. It could be argued that the referring doctor should have spent more time requesting this information, but the reality is that in a busy practice it is not practical to spend time in pursuit of missing information when other priorities are pressing. It is quicker to write a referral letter, particularly if the doctor thinks that the referral may be necessary anyway.

Easy access to community psychiatric nurses would have improved access to information about secondary care in five cases, and in two others a community psychiatric nurse (if available) could have helped with a home based alcohol detoxification programme. Nursing support for palliative care may have reduced the likelihood of medical referral in five cases. Lack of direct access to day hospital (three referrals), general practitioner beds (two referrals), or professions allied to medicine (three referrals) also contributed to the avoidable referrals to specialists. Fundholding general practices would be expected to buy the above services, but confusion over responsibilities at the interface

between generalists and specialists is also an issue. The trust between a general practitioner and a patient is easily damaged if specialists' plans for that patient bypass the general practitioner, and unnecessary referrals or admissions are easily precipitated by such lack of professional manners and etiquette.

Many of the 26 avoidable referrals that were due to limitations of knowledge, attitude, or skills could have been pre-empted by referrals within a group practice. A singlehanded doctor does not have this opinion, but it is widely practised in Canada, where family doctors often have specialist interests. General practitioners' time is, however, at a premium in the new NHS, so that changes in this area may be slow unless internal referral becomes recognised as part of normal practice and the calculations of the workforce in general practice are reviewed to allow for the rising pressure on British general practitioners since 1990.⁷

Our findings in a singlehanded practice may not be generalisable to others. However, a method that invokes an in depth review of the referral process is more likely to produce practical context specific suggestions for change than a population based methodology which searches for broader explanatory variables, targets, guidelines, rules, or other generalisations that are not context sensitive. The next stage in the development of our method would be to apply it to a wider sample of practices. This would test our results and provide a basis for the definition of core skills for general practitioners.

CONCLUSION

Independent peer review is challenging for general practitioners because it provides an assessment of

Examples of poor communication by hospitals

Case 1—A 71 year old man had been seen by a urology department because of outflow obstruction and recurrent urinary tract infections. He had received an intravenous pyelogram and was discharged in July, having been told that the result would be reviewed at the outpatient department in the near future. In October of the same year he contacted his general practitioner and queried the arrangements for follow up at the outpatient department. Although it was possible to obtain a verbal report of the intravenous pyelogram—"A smallish right kidney"—this was not sufficient to allow the patient to be advised, and he was referred again to the urology department. Improved communication in terms of speed and content would have enabled this patient to have been managed in general practice.

Case 2—A 25 year old man was discharged from hospital after arthroscopy of the right shoulder. His general practitioner did not receive any information about the operation, and apparently no indication was given to the patient about future management or the suitability of returning to work. In view of this lack of information, the patient was referred back to the orthopaedic outpatient department.

Practice implications

- General practitioners' rates of referral vary widely, but relatively few studies have made objective attempts to assess how many referrals to hospitals might be avoided
- In this study a general practitioner reviewed the appropriateness of 170 of his referrals with an independent assessor
- A third of referrals were considered to be at least theoretically avoidable if adequate resources and direct access to intermediary were available
- Poor communication with hospitals about patients who had been discharged was another reason for avoidable referrals
- Demand on secondary care could be reduced if workforce and resources in primary care were made sufficient to cope with demand and if communication between hospitals and general practitioners was improved

needs and raises organisational, resource, and personal issues to address. This study also provided more evidence to justify transfer of local resources from secondary to primary care, and it confirmed the high cost of poor communication between secondary and primary care. There is some encouraging evidence of improved communication between 1991 and 1993,⁸ but among both doctors and managers of hospitals there is still room for improvement. We conclude that general practitioners could reduce demands on specialists if the workforce in primary care was increased sufficiently to cope with demand, if there was easy access to intermediate care, if there was an improvement in communication between hospitals and general practices, and if the team resources available to general practitioners were enhanced and managed in house. We plan a larger study with similar methodology to test our conclusions on a more representative sample of general practitioners.

- 1 Wilkin D. Patterns of referral: explaining variation in hospital referrals. In: Roland M, Coulter A, eds. *Hospital referrals*. Oxford: Oxford University Press, 1992: 76-91.
- 2 Moore AT, Roland MO. How much variation in referral rates among general practitioners is due to chance? *BMJ* 1989;298:5400-502.
- 3 Stott NCH. Help seeking behaviour. In: *Primary health care: bridging the gap between theory and practice*. Berlin: Springer Verlag, 1983:43-51.
- 4 NHS Management Executive. What do we mean by appropriate health care? *Quality in Health Care* 1993;2:117-23.
- 5 McWhinney LR. *Textbook of family medicine*. Oxford: Oxford University Press, 1989:45-78.
- 6 Fertig A, Rowland M, King H, Moore T. Understanding variation in rates of referral among general practitioners: are inappropriate referrals important and would guidelines help reduce rates? *BMJ* 1993;307:1467-70.
- 7 Stott NCH. The new general practitioner? *Br J Gen Pract* 1994;44:2-3.
- 8 Pill RM, Smithers M. *Health services for residents of south Glamorgan: a report on the results of a survey of general practitioners*. Cardiff: University of Wales College of Medicine, 1993: 20-1.

(Accepted 8 July 1994)