Key messages

- Standard definitions of diagnosis and interventions in general practice are unclear
- 81% of general practice can be described as evidence based using this method of assessment
- Evidence derived from different methodologies may be important for the assessment of the evidence base of general practice

the value of a coffee future—likely to be altered by tomorrow's experience. Furthermore, some interventions were originally assessed within secondary care but their main use is in the community.

THE SEARCH FOR APPROPRIATE PARADIGMS

Despite the healthy debate resulting from the Oxford study,⁶⁻⁸ both patients and policy makers might want doctors to try to base as many of their interventions as possible on evidence from clinical trials. There may be a temptation to produce a league table of specialties and settings—for example, inpatient medicine might be found to be “better than” general practice by 1%.

We could question whether it is feasible or even desirable to pursue the goal of 100% evidence based practice. Much of the work within general practice, as well as in other settings, consists of medicine that combines science with art, sociology, mythology, and pastoral care. These aspects of care must be incorporated into an appropriate paradigm of evidence based practice rather than that determined solely by clinical trials.

Linked to this is the search for appropriateness of the methods used to provide the evidence. We believe that for general practice, and possibly in other settings too, the most important evidence may be found in developing alternative methodologies which complement conclusions from randomised controlled trials.

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- 1 Smith R. The scientific basis of health services. *BMJ* 1995;311:961-2.
- 2 Cochrane's legacy. *Lancet* 1992;340:1131-2.
- 3 Davidoff F, Haynes B, Sackett D, Smith R. Evidence based medicine. *BMJ* 1995;310:1085-6.
- 4 Ellis J, Mulligan I, Rowe J, Sackett DL. Inpatient general medicine is evidence based. *Lancet* 1995;346:407-10.
- 5 Office of Technology Assessment of the Congress of the United States. *Assessing the efficacy and safety of medical technologies*. Washington, DC: US Government Printing Office, 1978.
- 6 Bradley F, Field J. Evidence-based medicine. *Lancet* 1995;346:838.
- 7 Aveyard P. Evidence-based medicine. *Lancet* 1995;346:838.
- 8 Evidence-based medicine in its place [editorial]. *Lancet* 1995;346:785.

- 9 Medical Research Council Working Party. MRC trial of treatment of mild hypertension: principal results. *BMJ* 1985;291:97-104.
- 10 Morley CA, Cavalcanti C, Perrins EJ, Sutton R. A comparison of once daily atenolol and metoprolol SA in mild to moderate hypertension. *Br J Clin Pharmacol* 1983;15:715-7.
- 11 Hansson L, Aberg H, Karlberg BE, Westerlund A. Controlled study of atenolol in treatment of hypertension. *BMJ* 1975;iii:367-70.
- 12 Drayer JL, Weber MA. Monotherapy of essential hypertension with a converting-enzyme inhibitor. *Hypertension* 1983;5:108-13.
- 13 Hallin L, Andren L, Hansson L. Controlled trial of nifedipine and bendroflumethiazide in hypertension. *Journal of Cardiovascular Pharmacology* 1983;5:1083-5.
- 14 Silas JH, Ramsay LE, Freestone S. Hydralazine once daily in hypertension. *BMJ* 1982;284:1602-4.
- 15 Fitzpatrick MF, Mackay T, Driver H, Douglas NJ. Salmeterol in nocturnal asthma: a double blind, placebo controlled trial of a long acting inhaled β_2 agonist. *BMJ* 1990;301:1365-8.
- 16 Agnew RA, Walker DJ, Phillips LA. A prospective study of respiratory infection in asthmatic patients treated with beclomethasone dipropionate and sodium cromoglycate. *Clin Allergy* 1977;7:183-8.
- 17 Hasham F, Kennedy JD, Jones RS. Actions of salbutamol, disodium cromoglycate, and placebo administered as aerosols in acute asthma. *Arch Dis Child* 1981;56:722-5.
- 18 Come SJ, Hall JR. A double-blind comparative study of fluoxetine and dothiepin in the treatment of depression in general practice. *Int Clin Psychopharmacol* 1989;4:245-54.
- 19 Rickels K, Csanalosi I, Greisman P, Mirman MJ, Morris RJ, Weise CC, et al. Ketazolam and diazepam in anxiety: a controlled study. *J Clin Pharmacol* 1980;20:581-9.
- 20 Wheatley D. Insomnia in general practice: the role of temazepam and a comparison with zopiclone. *Acta Psychiatr Scand* 1986;332(suppl):142-8.
- 21 Lacey RW, Lord VL, Gunasekera HK, Leiberma PJ, Luxton DE. Comparison of trimethoprim alone with trimethoprim sulphamethoxazole in the treatment of respiratory and urinary infections with particular reference to selection of trimethoprim resistance. *Lancet* 1980;ii:1270-3.
- 22 Low RA, Clarke TK. Cephradine in urinary tract infections: a double-blind comparison with ampicillin. *Curr Med Res Opin* 1975;3:211-7.
- 23 Richards JG. Doxycycline and amoxycillin in respiratory infections: a comparative assessment in general practice. *Curr Med Res Opin* 1980;6:393-7.
- 24 Trimethoprim-Polymyxin B Sulphate Ophthalmic Ointment Study Group. Trimethoprim-polymyxin B sulphate ophthalmic ointment versus chloramphenicol ointment in the treatment of bacterial conjunctivitis—a review of four clinical studies. *J Antimicrob Chemother* 1989;23:261-6.
- 25 Smith EB, Graham JL, Ulrich JA. Topical clotrimazole in tinea pedis. *South Med J* 1977;70:47-8.
- 26 Evans EGV, Shah JM, Joshipura RC. One week treatment of tinea corporis and tinea cruris with terbinafine (Lamisal) 1% cream: a placebo controlled study. *Journal of Dermatological Treatment* 1992;3:181-4.
- 27 Cullin SI. Cutaneous candidiasis: treatment with miconazole nitrate. *Cutis* 1977;19:126-9.
- 28 Petri M, Dobrow R, Neiman R, Whiting-O'Keefe Q, Seaman WE. Randomised double-blind, placebo-controlled study of the treatment of the painful shoulder. *Arthritis Rheum* 1987;30:1040-5.
- 29 Frost H, Klaber Moffett JA, Moser JS, Fairbank JC. Randomised controlled trial for evaluation of fitness programme for patients with chronic low back pain. *BMJ* 1995;310:151-4.
- 30 Cullen SI, Cohan RH. Minocycline therapy in acne vulgaris. *Cutis* 1976;17:1208-10.
- 31 Brogden RN, Pinder RM, Sawyer PR, Speight TM, Avery GS. Hydrocortisone 17-butyrate: a new topical corticosteroid preliminary report. *Drugs* 1976;12:249-57.
- 32 Ciprandi G, Iudice A, Tosca MA, Ruffoni S, Buscaglia S, Canonica GW. Comparative effects of terfenadine and loratadine in the treatment of hay fever. *J Investigat Allergol Clin Immunol* 1991;1:368-72.
- 33 Ciprandi G, Cerqueti PM, Sacca S, Cilli P, Canonica GW. Levocabastine versus cromolyn sodium in the treatment of pollen-induced conjunctivitis. *Ann Allergy* 1990;65:156-8.
- 34 Dickersin K, Scherer R, Lefevre C. Identifying relevant studies for systematic reviews. *BMJ* 1994;309:1286-91.
- 35 Marsland DW, Wood M, Mayo F. *Content of family practice*. New York: Appleton-Century-Crofts, 1980.
- 36 Howie JGR. Diagnosis: the Achilles heel. *J R Coll Gen Pract* 1972;22:310.
- 37 Gelbach S. Comparing methods of data collection in an academic ambulatory practice. *J Med Educ* 1979;54:730-2.
- 38 Bridges-Webb C, Britt H, Miles DA, Neary S, Charles J, Traynor V. Morbidity and treatment in general practice in Australia 1990-1991. *Med J Aust* 1992;157:S1-56.

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Survey of general practitioners' views of consultants' non-urgent referral of outpatients to other consultants

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There are an estimated nine million new outpatient referrals each year.¹ Between 60% and 80% of these referrals originate from general practitioners.² Additional referrals arise predominantly from hospital departments. A study in Leicester found a cross

referral rate of at least 17% from one clinic to another.³ In the years preceding fundholding the practice of referral between consultants seems to have been accepted.⁴ However, fundholding general practitioners have become increasingly aware of the cost and logistic implications of this practice and have begun to express their concerns.⁵

We investigated local general practitioners' preferences about the practice of non-urgent referral of outpatients between consultants.

Patients, methods, and results

We sent a questionnaire to all 165 general practitioners in the Brighton area. These questionnaires consisted of 10 specimen case histories, and on each of

Table 1—General practitioners' attitudes to consultants' referral of outpatients to other specialists: two sample cases*

	Fundholding GPs (n=49)	Non-fundholding GPs (n=63)
Case 1		
A 72 year old woman was referred to the ear, nose, and throat clinic with a history of progressive deafness and episodic giddy turns. Examination confirmed otosclerosis but also showed a harsh ejection systolic murmur; blood pressure was 100/70 mm Hg. Aortic stenosis was tentatively diagnosed. Should the consultant:		
Refer directly to cardiologist?	16	44
Advise referral but leave referral to GP's discretion?	33	19
Odds ratio (95% confidence interval)†	4.77 (2.0 to 11.6)	
Case 2		
A 54 year old widow was referred to a consultant physician with a six month history of malaise. Abdominal examination showed a fullness in her left iliac fossa. Ultrasonography confirmed the presence of a large multilocular ovarian cyst. Should the physician:		
Refer directly to gynaecologist?	38	53
Advise referral but leave referral to GP's discretion?	11	10
Odds ratio (95% confidence interval)†	1.53 (0.5 to 4.5)	

GP=general practitioner.

*Three of the 115 general practitioners gave unclear or equivocal responses for these cases, and their answers are therefore excluded from further analysis.

†For difference between fundholding and non-fundholding general practitioners.

these the general practitioners were asked to select whether they would prefer the specialist to refer directly to another specialist or advise this option but leave referral to the general practitioner's discretion. We received 115 replies (70%), of which 49 were from fundholding general practitioners. Statistical analysis comparing the replies from fundholding and non-fundholding practices was carried out using odds ratios with 95% confidence intervals.

Eight of the case reports were perceived by the general practitioners as non-urgent tertiary referral. Two of the cases were perceived as being more urgent as the patient may have had an underlying malignancy. An example of the two types of cases and the general practitioners' replies are shown in table 1. In all cases non-fundholding general practitioners were more likely to prefer direct referral by consultants. In nine of these cases these differences were significant (P value varying between 0.00041 and 0.024). Case 2 was the only instance when there was no significant difference between the preferences of fundholding and non-fundholding general practitioners (table 1). Non-fundholding general practitioners indicated that they preferred direct referral by a consultant on 440 occasions out of a total of 621 responses (71%) compared with fundholding general practitioners, who indicated that they preferred this practice on 220 occasions out of a total of 486 responses (45%) (P<0.0001 with an odds ratio of 2.83 (2.2 to 3.7)).

Comment

General practitioners expressed few concerns about consultants' referral of outpatients to other consultants in a study published in 1991.⁴ Since then health service reforms have led general practitioners and hospital specialists to re-evaluate this practice. We were surprised by the good response rate and the strength of feelings expressed by some of the doctors. Non-fundholding general practitioners stated that it was "a waste of time bringing patients out of the system," and that "inter-consultant referral was quicker" and

"reduces unnecessary paper work." In contrast, fundholders commented that "consultants should only ever advise GPs," and that "interconsultant referral is never appropriate" or "a fair option as the consultant cannot know where the GP has placed the contract."

It was clear from this study that fundholding general practitioners are significantly less likely than their non-fundholding colleagues to want direct referral between consultants for patients with non-urgent problems. Fundholding general practitioners would like to participate more fully in decisions about the tertiary referral of their patients.

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- 1 Armstrong D, Nicoll M. Consultants workload in outpatient clinics. *BMJ* 1995;310:581-2.
- 2 Morrell DC, Gage HC, Robinson NA. Referral to hospital by general practitioners. *Journal of the Royal College of General Practitioners* 1971;21: 77-85.
- 3 Samanta A, Haider Y, Roffe C. An audit of patients attending a general medical follow up clinic. *J R Coll Physicians Lond* 1991;25:33-5.
- 4 Bowling A, Jacobson B, Southgate L, Formby J. General practitioners' views on quality specifications for outpatient referral and care contracts. *BMJ* 1991;303:292-4.
- 5 Wooley B. Costs of referral: the perspective of a GP purchaser of care. In: Hopkins A, Wallace P. *Referral to medical outpatients: different agenda of patients, general practitioners, and hospital physicians*. London: Royal College of Physicians, 1992:43-9.

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Correction

Combining specialist and primary health care teams for HIV positive patients: retrospective and prospective studies

An editorial error occurred in this paper by Smith *et al* (17 February, pp 416-20). The footnote to table 2 should read: "Follow up period of 42 months. The groups did not differ significantly in disease stage without progression (P=0.137, χ^2 test) or with progression (P=0.688, χ^2 test)" [not with varying follow up, as published].