What is already known on this topic

General practitioner with special interest services are being developed throughout England

No robust evidence exists about the economics of such schemes in terms of their relative cost effectiveness compared with routine hospital care

What this study adds

Patients referred to the general practitioner with special interest service incurred higher NHS costs for little difference in clinical outcome compared with routine outpatient care

The higher cost of general practitioner with special interest services must be offset against the improvements in access measured in several ways

est service from both NHS and societal perspectives. It is based on data collected from a randomised controlled trial, and NHS resource use data were successfully collected from reliable sources for all participants. Data obtained from the patient questionnaire were, however, more variable for quality and completion.

The study is based on one geographical area and its findings may not apply to other settings. Information about resource use is, however, provided separately from information about costs, which allows decision makers in other settings in the NHS to use this information.

A further limitation is the extent to which the general practitioner with special interest service was operating at full capacity. However, the sensitivity analysis suggested that the results would not be changed by increased use of the service. Underutilisation may also have led to greater benefits being apparent, particularly for waiting times, but also potentially for satisfaction with care.

Previous studies of outreach clinics^{1 2 5 6} or shifting care from secondary to primary services,⁷ show the general practitioner with special interest service to be more costly than outpatient care. Other research on service development has also encountered problems of underutilisation.⁷

If this service is typical, then those making the decision about whether the increased cost to the NHS of general practitioner with special interest services is

worth incurring, must set the potential for using these funds to treat others who might benefit from increased outcomes against the benefits noted here for increased access to care. Using the national tariff for dermatology outpatients, the mean cost of commissioning specialist care from a hospital for the patients in this study would have been £127 per patient (based on the new and follow-up consultation rates in the outpatient arm), compared with £182 per patient actually spent in the general practitioner with special interest arm.^{8 9}

Increased NHS costs for the general practitioner with special interests service must be offset against the marginally greater benefits in terms of health and the greater benefits in terms of access.

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Commentary: General practitioners with special interests—not a cheap option

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General practitioners with a special interest are general practitioners with special experience or training that enables them to take referrals which would normally be seen by specialists. The training of a new cadre of general practitioners with special interest was a key part of the UK government's 2000 NHS Plan.

Are general practitioners with special interests likely to be an effective and cost effective way of providing care? A randomised controlled trial by Salisbury et al and an economic evaluation by Coast et al provide some answers.^{1 2} The results show that in dermatology a general practitioner with special interest service was effective: patients were seen more quickly,

were more satisfied, and had similar clinical outcomes when compared with those seen in a specialist clinic. However, the NHS costs of referring patients to a general practitioner with special interest were 75% more than for specialist clinics. The main reason for this was that patients seen in specialist clinics could be seen by both consultants and junior hospital staff, and the junior staff had lower salaries than general practitioners with special interests. In addition, seeing outpatients in concentrated settings (for example, hospitals) provides economies of scale.

These results echo those of a previous strategy to move outpatient clinics outside the hospital setting. In

the 1990s, specialist outreach clinics were established in which specialists travelled to general practitioner clinics to see patients. Again these were associated with high patient satisfaction and reduced waiting times but increased costs to the NHS.³

So from an NHS perspective, general practitioner with special interest clinics look as if they are effective mainly in providing better access but will do this in a cost effective manner only if the increased capacity cannot be provided in hospital clinics. In terms of safety and clinical effectiveness, general practitioner with special interest services need to be set up in close collaboration with local specialists, who should provide ongoing training and education. This has not always been the case, and many general practitioners with special interests are not currently receiving nationally agreed levels of training.⁴

The effect of increasing specialist capacity on general practitioners' rates of referral is another key factor that will affect the cost effectiveness of general practitioner with special interests. Several studies indicate that general practitioners with special interests are associated with an increase in number of patients referred.⁵⁻⁷ Maddison et al found a doubling in the number of patients referred to a redesigned musculoskeletal service, with no change in the proportion of patients listed for surgery, implying that the increase in referrals addressed previously unmet needs.⁷ Sanderson, however, found that some of the observed increase in referrals was of patients who would not previously have been referred.⁵

The development of general practitioner with special interest services is an effective method of

increasing access to specialist services when capacity cannot be increased within hospital clinics. They are unlikely, however, to be a cheap option. General practitioner with special interest clinics may cost more than the equivalent hospital based clinics and they may generate increased demand. In the context of the forthcoming white paper on care outside hospitals, general practitioners with special interests should be regarded as a positive development in improving access and patient satisfaction. Healthcare planners, however, need to understand that general practitioners with special interests will increase overall NHS costs and are probably not the most efficient way of increasing specialist capacity.

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Deprivation and volunteering by general practices: cross sectional analysis of a national primary care system

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Since the inception of the NHS, primary medical services in the United Kingdom have been mainly delivered by a large number of general practices operating as independent businesses. As well as providing general medical services, practices can participate in several voluntary activities associated with quality care and service development.

Methods and results

Our study population comprised 5.35 million people served by 1050 general practices and is a complete national sample of patients and practices.

We ranked general practice populations using a modified version of the *Scottish Indices of Deprivation 2003*,¹ including currently available data for education, income, and employment, but excluding data for access and health. We used practice mean values to divide the population into 10 groups of equal size, from tenth 1 (least deprived) to tenth 10 (most deprived). We analysed the

deprivation related distribution of population health indicators, practice characteristics, and participation in voluntary development schemes, using data for 2001-2 (table).

By design, the composite deprivation index increases across tenths with the largest increase between tenths 9 and 10. All three measures of ill health show a significant positive trend and greater than 2.5-fold variation across tenths.

On average, populations of 530 000 people were served by 353 whole time equivalent general practitioner principals, with little variation between tenths. The total whole time equivalent of general practitioners, however, including non-principals and doctors in training, was 11% higher (437.1 v 392.0, $P < 0.001$) in tenths 1-5 (least deprived) compared with tenths 6-10 (most deprived).

On average, each tenth was served by 105 general practices, with larger numbers of practices in the most rural (tenth 2) and deprived (tenth 10) areas. This

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