

Evaluation of specialists' outreach clinics in general practice in England: process and acceptability to patients, specialists, and general practitioners

Ann Bowling, Katia Stramer, Edward Dickinson, Joy Windsor, Matthew Bond

Abstract

Objectives - The wider study aimed to evaluate specialists' outreach clinics in relation to their costs, processes, and effectiveness, including patients' and professionals' attitudes. The data on processes and attitudes are presented here.

Design - Self administered questionnaires were drawn up for patients, their general practitioners (GPs) and specialists, and managers in the practice. Information was sought from hospital trusts. The study formed a pilot phase prior to a wider evaluation.

Setting - Nine outreach clinics in general practices in England, each with a hospital outpatient department as a control clinic were studied.

Subjects - The specialties included were ear, nose, and throat surgery; rheumatology; and gynaecology. The subjects were the patients who attended either the outreach clinics or hospital outpatients clinics during the study period, the outreach patients' GPs, the outreach patients' and outpatients' specialists, the managers in the practices, and the NHS trusts which employed the specialists.

Main outcome measures - Process items included waiting lists, waiting times in clinics, number of follow up visits, investigations and procedures performed, treatment, health status, patients' and specialists' travelling times, and patients' and doctors' attitudes to, and satisfaction with, the clinic.

Results - There was no difference in the health status of patients in relation to the clinic site (ie, outreach and hospital outpatients' clinics) at baseline, and all but one of the specialists said there were no differences in casemix between their outreach and outpatients' clinics. Patients preferred, and were more satisfied with, care in specialists' outreach clinics in general practice, in comparison with outpatients' clinics. The outreach clinics were rated as more convenient than outpatients' clinics in relation to journey times; those outreach patients in work lost less time away from work than outpatients' clinic patients due to the clinic attendance. Length of time on the waiting list was significantly reduced for gynaecology patients; waiting times in clinics were

lower for outreach patients than outpatients across all specialties. In addition, outreach patients were more likely to be first rather than follow up attenders; rheumatology outreach patients were more likely than hospital outpatients to receive therapy. GPs' referrals to hospital outpatients' clinics were greatly reduced by the availability of outreach clinics. Both specialists and GPs saw the main advantages of outreach clinics in relation to the greater convenience and better access to care for patients. Few of the specialists and GPs in the outreach practices held formal training and education sessions in the outreach clinic, although over half of the GPs felt that their skills/expertise had broadened as a result of the outreach clinic.

Conclusions - The processes of care (waiting times, patient satisfaction, convenience to patients, follow up attendances) were better in outreach than in outpatients' clinics. However, waiting lists were only significantly reduced for gynaecology patients, despite both GPs and consultants reporting reduced waiting lists for patients as one of the main advantages of outreach. Whether these improvements merit the increased cost to the specialists (in terms of their increased travelling times and time spent away from their hospital base) and whether the development of what is, in effect, two standards of care between practices with and without outreach can be stemmed and the standard of care raised in all practices (eg, by sharing outreach clinics between GPs in an area) remain the subject of debate. As the data were based on the pilot study, the results should be viewed with some caution, although statistical power was adequate for comparisons of sites if not specialties.

(J Epidemiol Community Health 1997;51:52-61)

Considerable interest has been expressed in establishing specialist clinics in general practitioners' (GPs) surgeries, health centres, and community clinics (known as "outreach") as one method of shifting the balance of care from the secondary to the primary care sector. There are approximately 40 million hospital outpatient attendances in acute specialties each

Centre for Health Informatics and Multiprofessional Education (CHIME), University College London Medical School, 4th Floor Archway Wing, Whittington Hospital, Highgate Hill, London N19
A Bowling
K Stramer
J Windsor
M Bond

Research Unit, Royal College of Physicians, London
E Dickinson

Correspondence to:
Dr A Bowling.

Accepted for publication
May 1996

year alone in the UK, costing £1200 million in 1990.¹ Clinics often have long waiting lists because of the number of re-attendances, many of which may be inappropriate.^{2,3} While there may often be good reasons for the provision of continuing care in hospital clinics, other reasons include consultants' lack of confidence in GPs' ability to manage their patients, poor inter-professional communication, and the low patient discharge rate by junior hospital doctors.⁴⁻⁷ One of the main conclusions from Cartwright and Windsor's national outpatient survey³ was that the balance of outpatient attendance was inappropriate – there were too many continuing attendances over long periods and too few single or short term attendances with referral back to GPs.

The concentration on the shift of appropriate health services from secondary to primary care, which is being emphasised in London in particular,⁸⁻¹² has drawn attention to the possibility that much of the outpatient work could take place in GP surgeries rather than in hospitals. It is thus envisaged that hospital outpatient clinics will consist of those aspects of secondary care which need specialised technical activity or the use of expensive equipment.⁹ If this is successful, referrals to hospitals should show a downward trend, with more patients receiving follow up care from their own GPs or from specialists consulting in primary care centres (outreach clinics). Specialist clinics in primary care settings are not new, but there has been little thorough evaluation of them. Given the predicted growth in the numbers of these clinics in the near future, an evaluation is essential.

The establishment of specialist outreach clinics in general practice has been given impetus by fundholding GPs who have initiated them in a wide range of specialties.^{13,14} Bailey, Black and Wilkin's survey of 50 provider units in England¹³ identified 96 outreach clinics in surgical specialties, medical specialties, and psychiatry, and they concluded that their development is likely to increase. They reported that there was little evidence from their descriptive survey that GPs attended the outreach clinics or had any face to face communication with the specialists. While specialists and GPs reported that the greatest benefit for patients included ease of access and shorter waiting times for outpatients appointments, some specialists reported problems of having to make repeat appointments for patients who needed hospital based investigations, consultants' travelling times to outreach clinics, and more restricted time available for training junior hospital doctors. A quarter of the specialists saw the clinics as a means of attracting income and referrals to their hospitals. Just a fifth of the outreach clinics in fundholding practices were open to referral from other practices, compared with almost two thirds of the clinics held in non-fundholding practices. The authors concluded that there is still no firm evidence about whether these clinics make an important contribution to overcoming the barriers between primary and secondary care, or about their cost effectiveness. Despite this, they reported that both specialists and GPs had plans

for extensive further development of specialist outreach clinics.

There is much to learn from the precedent of psychiatry.¹⁵ Simply shifting outpatient sessions to primary care settings does not, by itself, enable GPs and consultants to influence each other or facilitate joint decision making. This is because the most common model is the "shifted outpatient" model in which the specialist conducts a normal outpatient clinic in general practice premises, often at a time when the GP is not on the premises so that contact is therefore infrequent.¹⁶ An improvement on this is the consultation-attachment in which the specialist attends a primary care meeting to discuss the management of several difficult patients with primary care staff, after which the specialist sees several patients, sometimes with the GP.¹⁷ With this model the GP continues to provide treatment for the patients, but benefits from joint management plans and specialist advice on patients whom he or she does not wish to refer. This method of care has the potential of being more expensive. Apart from the issue of cost effectiveness, the issue of how, or whether, to meet the demand for outreach clinics from an increasing number of practices has not been debated. There are ethical concerns about the provision of outreach in selected practices (usually fundholders), leading to a "two tier service".

The results presented here are based on a pilot study of the processes (including attitudes), costs, and effectiveness of specialist outreach clinics in general practice in comparison with outpatient controls. This paper focuses on the process and attitude data.

Aims and objectives

The study aimed to describe the processes (including patients' and doctors' attitudes) of outreach clinics and to evaluate the costs and effectiveness of specialist outreach clinics in general practice. In relation to the processes, the hypotheses of the study were that specialist outreach clinics will:

1. Improve access for patients to specialist care, reduce waiting times for appointments, thereby having a positive impact on short term outcomes, and increase patient satisfaction;
2. Improve communication between specialists and general practitioners, and have educational benefits for general practitioners, thereby also increasing professional satisfaction;
3. Reduce GPs' referrals to hospital outpatient departments;
4. Reduce the number of follow-up visits to the specialist, thereby enhancing the shift of care and workload from the secondary to the primary care sector.

Measures

The measures used were based on well tested questionnaires and items for measuring processes, attitudes, and satisfaction, including Davies and Ware's consumer satisfaction questionnaire (based on questions tested for the

RAND medical outcomes study in the USA).¹⁸ Health status was measured using the RAND brief impact and outcome batteries¹⁹ and the 12 items from the RAND version of the short form 36 health status/health related quality of life questionnaire that make up the recently developed health status questionnaire-12.²⁰ Other disease specific items of relevance and sociodemographic data were included in the questionnaires, including a list of health related quality of life items generated by the public (areas of life most affected by longstanding illness).²¹ A simple visual analogue scale was used for the specialists' and GPs' ratings of severity of the patients' condition, based on the definitions used in the Duke severity of illness scale.²² The questionnaires were further pre-tested before the pilot study for acceptability, comprehension, and content validity on 60 outpatients and volunteers from patients' groups, and on medical staff in the Department of General Practice at St Bartholomew's Hospital Medical College (where the research team was initially based) before being used in the study reported here. The process, attitude, and cost questions for patients, specialists, and GPs were developed with colleagues at the Primary Care Research and Development Centre, University of Manchester with whom these authors are collaborating in relation to the main evaluation of outreach clinics across England in different specialties (cost data are not reported here as the analysis is continuing). Base numbers to questions may vary due to some item non-response.

Methods

This study presents the results on processes and attitudes from nine outreach clinics in England, each with same speciality outpatients' clinics as controls (they were the same specialists' outreach and outpatients' clinics, except in two cases (one in gynaecology and one in rheumatology) where the specialists were in full time private practice and so local NHS outpatients were used as the controls). The advantage of the same specialists' outpatients' clinic acting as the control clinic is to reduce variation (eg in style of clinical practice), although this reduction will not be achieved in the case of two of the clinics. The advantage, however, of including a small number of unpaired outpatients' clinics as controls is that the clinics included in the study will reflect the variation in clinic providers that exists in reality (ie some run by NHS specialists and a few by private specialists), facilitating analyses of the most appropriate model of providing outreach. In the main study, the unpaired clinics can be analysed separately in order to assess the extent of any variation effects.

The specialties included were rheumatology (three outreach clinics), ear, nose and throat (ENT) (three outreach clinics), and gynaecology (three outreach clinics). The outreach clinics included in the study were selected to represent a wide geographical spread of regions in England. They were selected after identifying the location of outreach clinics in England from

a screen of family health services, acute trust executives and selected specialists through their specialist bodies. The data from the study reported here formed the pilot phase of the study. The questionnaires were unchanged for the main study, which is currently underway.

In view of the predicted growth in the numbers of specialist outreach clinics (unpublished data from a postal screen of specialists and NHS trusts as part of this study), and the lack of any evaluative data about such clinics, the dissemination of the pilot results was felt to be worthwhile. It can sometimes be an error of judgement to disseminate pilot findings, in the event that main study findings differ. However, while the main study will be the largest and most comprehensive evaluation of outreach clinics (although it will not be completed for two years), the analyses from the pilot study presented here also form the largest study to date. The pilot study involved the collection of data from nine outreach clinics with outpatient controls across England. The study included 146 outreach patients and 148 outpatients. This provides sufficient statistical power for comparisons between sites (outreach and outpatients), although statistical power will be weaker for between specialty comparisons. For the main study we require 1000 outreach patients and 1000 outpatients in more than 30 paired clinics (outreach-outpatients) to achieve statistical power with the clinic and the patient as the unit of analysis and to permit between specialty comparisons. This is ongoing. We will be undertaking multilevel analysis for the main study, and we will be able to increase the number of stratified analyses to control for intervening variables.

Pilot study analyses are necessarily crude in comparison with main study analyses because the statistical power is lacking for fine stratification within the analyses and because the investigator wishes to limit the amount of statistical testing carried out in order to reduce the potential for statistical significance being obtained by chance. Thus, as the data are based on a pilot study, conclusions can only be tentative and must be viewed with caution.

In each participating outreach clinic and matched outpatients' clinic, all attending patients were approached in the waiting room and invited to take part. They were given a self completion questionnaire to take home and return to the research team. Specialists and GPs completed clinical sheets for the patients as well as process and attitude questionnaires about the outreach clinic. The practice managers and the NHS trusts provided process and cost data.

RESPONSE RATES

In relation to the nine outreach clinics, and their matched outpatients' clinics, each of the nine practice managers returned their questionnaires about the costs and processes of the outreach clinic. All of the trusts in each study area provided information about outpatient costs. Each of the nine specialists returned their attitude questionnaires. Forty four (73%) of

the 60 GPs in the study practices with outreach clinics returned their attitude questionnaires.

Nineteen visits were made to the nine different outreach clinics, and one visit each to their corresponding outpatients' clinics (controls) were made over a three month period in order to recruit the samples. More visits were made to recruit patients in the outreach clinics because of the smaller numbers of patients booked in, in comparison with outpatients' clinics. One hundred and forty six (83%) of the 176 outreach clinic patients attending (all attenders were approached) returned their questionnaires (ENT: 80%, 65 out of 81; gynaecology: 83%, 44 out of 53; rheumatology: 88%, 37 out of 42), as did 148 (71%) out of the 208 outpatients attending (all attenders were approached) (ENT: 77%, 66 out of 86; gynaecology: 63%, 43 out of 68; rheumatology: 72%, 39 out of 54).

In relation to the two sided individual patient's clinical sheets completed by GPs (for outreach clinic patients) and by specialists (for outreach clinic and outpatients' clinic patients), the response rates were 58% (102 out of 176 returned) for the GPs (outreach clinic patients – and a further 15 were lost in the post); 96% (169 out of 176 attending) for the specialists in relation to outreach clinic patients, and 82% (170 out of 208 attending) for the specialists in relation to the outpatient controls (as they completed clinical sheets in cases where the patient failed to return their questionnaire, the numbers of clinical sheets exceeds the total patient response rates). These response rates were considered to be excellent in view of the busy work schedules of clinicians and demonstrate the level of interest in, and commitment to, the study.

Results

INFORMATION FROM THE MANAGERS IN THE PRACTICE, THE GPs AND THE SPECIALISTS

All the participating practices were fundholders or multi-fundholders, and all had outreach clinics in other specialties. All but one of the outreach clinics had been established between one and four years ago (one rheumatology outreach clinic had been operating for less than a year). Five of the outreach clinics were held monthly, one gynaecology clinic was held every fortnight, two ENT clinics were held every six weeks, and one rheumatology clinic was held "as required". Neighbouring practices could, in theory, refer their patients to two of the outreach clinics; in practice this was rare. Apart from two practices which paid the specialist or hospital trust a fee per patient booked (£35–£40 per patient), the remaining practices paid a set clinic fee, regardless of the number of patients booked (£230–£540 per clinic). The practice also had to bear the costs of any investigations or procedures performed in outreach that require additional facilities (eg, routine tests requiring laboratory analysis, referral to hospital for further investigations or procedures). The average trust charges for outpatient care in the study districts (in the study specialties) was £69 for a new referral (range

£48–£89, except for one trust which absorbed the outpatient cost within the inpatient fee) and £42 for a follow up consultation (range £26–£64, except for one trust which absorbed the outpatient cost within the inpatient fee). The charges include basic investigations. The costings of the clinics have yet to be comprehensively analysed, thus the costs reported above must be viewed with caution as they are crude and form a partial reflection only of true costs.

All of the specialists providing outreach held consultant status. Two of the specialists providing outreach services were in full time private practice, and the remainder held NHS appointments. Six of the eight specialists who replied said the outreach clinic was set up at the GPs' suggestion, one said it was a fundholding consortium's suggestion, and one said it was the trust's suggestion. The specialists' stated reasons for setting up the clinics were mainly patient oriented – all said it was to reduce waiting list times for a specialist's opinion and/or to improve accessibility for patients; a third (3) also said they set up the outreach clinic in order to secure GP-fundholder contracts for the hospital. The most frequent reasons given by the GPs for setting up the outreach clinic were: to improve accessibility/convenience for patients (94%, 33); to get priority access to a particular consultant (83%, 29); to improve communication between specialists and GPs (74%, 26); to reduce waiting times for specialists' opinions (71%, 25); to broaden GPs' skills (57%, 20); and to improve GPs' job satisfaction (43%, 15).

Three of the specialists travelled 20–23 miles to the outreach clinic, two travelled 35–40 miles, and the remainder travelled less than 10 miles (their return journeys were similar). The managers reported that each outreach clinic lasted between 2 and 3.5 hours, although three of the specialists reported that the clinic actually lasted for 4 hours. In relation to the total amount of time devoted to the outreach clinic on the day the clinic was held, four of the specialists reported devoting between 5 and 6 hours to it and the remainder devoted 2.5 to 5 hours to it. Three specialists reported that their outreach clinic was conducted in normal NHS time; three said it was done in private time; and the remainder said it was done in extra NHS sessions. Five of the specialists reported that they held outreach clinics in other practices, and one was planning these.

In relation to outreach patients requiring further tests/investigations in hospital, five specialists said they gave them the next available appointment (thus, in effect, giving them a "fast track"), and the remainder said that they put the patients on the waiting list and treated them as new referrals.

REFERRALS TO OUTREACH

The managers in the practices provided information on the average number of patients booked into the outreach clinics: this was 15.66 (range 10–25) (ENT: 19.66, range 12–25; rheumatology: 14.0, range 10–16; gynaecology:

Table 1 GPs' view of the main advantages and disadvantages of outreach clinics

	ENT (no)	Gynaecology (no)	Rheumatology (no)	Total % (no)
Advantages:				
Reduces waiting times for patients to get appointments	7	13	7	
Improves accessibility/convenience for patients	7	3	15	77 (27)
Improves communication between GP and specialist	6	11	10	71 (25)
Broadens GPs' skills	2	7	9	77 (27)
Broadens specialists' skills	1	5	9	51 (18)
Improves GPs' (own) job satisfaction	5	8	12	42 (15)
Fewer non-attenders in comparison	4	10	2	63 (22)
Promotes good will with specialist	4	8	2	40 (14)
Cheaper service than outpatients' clinics	4	10	3	49 (17)
Disadvantages:				
Having to repeat appointments for patients who need tests at hospital	3	1	3	20 (7)
Lack of equipment in GPs' surgery	-	3	-	9 (3)
Lack of surgery space/rooms	2	2	1	14 (5)
Increase in GPs' administrative costs/time	4	5	8	49 (17)
Reduces specialists' time in hospital	2	3	9	40 (14)
No disadvantages	1	3	4	23 (8)
No of respondents	7	13	15	35

ENT = ear, nose, and throat.

13.33, range 10–15). All but one of the GPs said the patients they referred to the outreach clinic were patients who they would otherwise have referred to the hospital outpatients' department, rather than have managed them themselves (one said that the outreach clinic patients were a combination of those they would have managed themselves or referred to hospital). All except one (in ENT) of the NHS specialists said that the casemix of their outreach and outpatients clinics was similar (the one in ENT said that he saw less acute patients in outreach clinics). The practice managers provided information on the number of patients referred to (all) hospital outpatients' departments (in the same specialty as the outreach clinic) during the six months before and after the outreach clinic had been set up. The volume of referrals had decreased after the outreach clinic started. The average number of outpatient referrals per practice in the six months before the outreach clinics were initiated was 82.0 (range 62–246) and in the six months after the clinic had started the average referral rate to outpatients was 9.0 (range 0–17) (*t* test not performed as number of clinics in sample was small).

COLLABORATION AND CONTACT BETWEEN PROFESSIONALS

Six of the specialists said the GP decided which patients were to be seen in outreach clinics and the remainder said it was a joint decision between GP and specialist. Only one of the specialists reported having (joint) criteria/guidelines for the type of patient to be seen in outreach (ie, those with non-acute conditions). Four of the GPs said they decided jointly with the specialist who should be discharged from the outreach clinic and the remainder said the specialist alone decided. When asked who had overall responsibility for an outreach clinic patient, 67% (22) of the GPs said that they retained responsibility and the remainder said the specialist held responsibility.

In six of the nine outreach clinics the specialist was accompanied by other staff. One gynaecologist reported seeing patients with the practice nurse (eg, as chaperone); one gynaecologist reported that his private nurse and private secretary accompanied him to the out-

reach clinic; in two of the rheumatology outreach clinics the specialist was accompanied by two NHS hospital nurses (one did blood tests and the other helped patients to dress/undress); two hospital based audiologists tested the hearing of patients before the consultation with the specialists in two ENT outreach clinics.

Two of the specialists reported periodically holding educational and training sessions "teach and treat" with the GPs in the outreach clinic. Otherwise, none of the specialists had planned meetings with the GPs (communications were by letter, fax, and telephone).

GPs' ATTITUDES TO OUTREACH

Fifty three per cent (18) of the GPs felt that their skills/expertise had been broadened as a result of the outreach clinic, 35% (12) felt they had not, and 12% (4) were uncertain. Fourteen per cent of the GPs (5) were planning other outreach clinics.

GPs were asked about the advantages and disadvantages of the outreach clinic, and their responses are shown in table 1. The most commonly stated advantages (by over half) were the reduced waiting times for patients to get appointments; improved accessibility/convenience for patients; fewer non-attenders than in outpatients; improved job satisfaction for GPs; and improved communication between GPs and specialists.

Table 1 also shows the GPs' perceived disadvantages of outreach clinics. The largest category related to the increase in GPs' administration costs/time, this was followed by reduced time in hospital (NHS) for the specialist and having to make repeat appointments for patients who need tests/investigations in hospital. Twenty three per cent (8) of the GPs said there were no disadvantages of outreach clinics. All but one (in rheumatology) of the GPs said that they believed that the outreach clinic was worthwhile (96% (23)).

SPECIALISTS' ATTITUDES TO OUTREACH

The specialists perceived fewer advantages of outreach than the GPs reported. The most commonly reported advantages were reduced waiting times for patients to get appointments

Table 2 Time on waiting list to see specialist and waiting times within the clinic in relation to clinic site

	Outreach				Outpatient			
	ENT % (no)	Gynaecology % (no)	Rheumatology % (no)	Total % (no)	ENT % (no)	Gynaecology % (no)	Rheumatology % (no)	Total % (no)
Time on waiting list to see specialist:								
<3 wk	4 (2)	53 (21)	15 (5)	21 (27)	21 (10)	15 (5)	5 (2)	15 (17)
3-5 wk	17 (10)	33 (13)	26 (8)	24 (31)	21 (10)	18 (6)	36 (10)	24 (26)
5-7 wk	24 (14)	10 (4)	28 (9)	21 (28)	10 (5)	32 (11)	11 (3)	18 (19)
7-9 wk	22 (13)	-	12 (4)	13 (17)	8 (4)	6 (2)	11 (3)	8 (9)
9<36 wk	35 (20)	5 (2)	18 (6)	21 (27)	40 (19)	29 (10)	36 (10)	35 (39)
No of respondents	58	40	32	130	48	34	28	110
Waiting times within the clinic:								
No wait	20 (12)	45 (17)	43 (14)	33 (43)	2 (1)	32 (12)	9 (3)	12 (16)
1-10 min	23 (14)	34 (13)	36 (12)	30 (39)	8 (4)	19 (7)	9 (3)	11 (14)
11-20 min	20 (12)	10 (4)	12 (4)	15 (20)	13 (7)	19 (7)	3 (1)	12 (15)
21-40 min	12 (7)	5 (2)	6 (2)	8 (11)	38 (21)	14 (5)	24 (8)	27 (34)
41-60 min	17 (10)	3 (1)	3 (1)	9 (12)	15 (8)	11 (4)	20 (7)	16 (19)
61-150 min	8 (5)	3 (1)	-	5 (6)	24 (13)	5 (2)	35 (12)	22 (27)
No of respondents	60	38	33	131	54	37	34	125

ENT = ear, nose, and throat.

(8); improved communication between GPs and specialists (6); and promotes goodwill with GPs (6). The most commonly reported disadvantages were the travelling times for the specialist (6), followed by reduced specialists' time in hospital (NHS) (5), as well as on training junior doctors (4), and having to make repeat appointments for patients who require tests on the hospital site (4). All but three of the nine specialists (two rheumatologists and one gynaecologist) said that they thought the outreach clinic was "worthwhile".

THE PATIENTS: MEDICAL CONDITION AND PREVIOUS CLINIC ATTENDANCES

There were no differences in relation to site (outreach or outpatients' clinic) and the type of medical condition (diagnosis was coded according to the International Classification of Diseases, 10th version), patients' reports of impact on quality of life, self assessed physical and mental health status, or the length of time patients had suffered from their condition. For example, 22% (16) of employed outreach patients and 17% (11) of outpatients had taken three weeks or more off work in the past six months because of ill health. Forty eight per cent (66) of outreach patients and 52% (64) of outpatients said they had "accomplished less in work/other daily activities due to physical health" in the past four weeks. Twenty seven per cent (37) of outreach patients and 29% (36) of outpatients said they had no pain in the past four weeks. Nine per cent of outreach patients (12) and 9% (11) of outpatients said that over the past four weeks they had felt "full of life" none of the time. These results confirm all but one of the specialists' reports of no differences in casemix in relation to site (see earlier).

More (65% (89)) of the outreach patients than outpatients (34% (45)) said the sampled consultation was the first time they had attended the ("this") specialist clinic for their condition (χ^2 : 25.63; 1 df; $p < 0.0001$). This was only significant, however, for ENT patients: 72% (44) of ENT outreach patients and 22% (13) of ENT outpatients said this

was their first attendance (χ^2 : 29.44; 1 df; $p < 0.0001$).

Of all the follow up patients attending clinics that had been in operation for a year or more, 23% (11) of the outreach clinic patients and 40% (35) of the outpatients had first attended the clinic more than a year ago (χ^2 : 4.13; 1 df; $p < 0.05$).

TIME ON THE WAITING LIST AND WAITING TIMES IN CLINIC

The differences in waiting times for the total samples in relation to site were not statistically significant (neither at fewer than three weeks or at nine or more weeks). However, there were differences in relation to specialty. Table 2 shows that 53% (21) of outreach patients in gynaecology waited less than three weeks to see the specialist in comparison with 15% (5) of gynaecology outpatients (χ^2 : 11.52; 1 df; $p < 0.001$). Differences within ENT and rheumatology in relation to site were not statistically significant. With regard to ENT, outreach patients appeared to be less likely than outpatients to be seen within three weeks (not statistically significant). This partly reflected the lesser frequency with which the outreach clinics were held (two of the three ENT outreach clinics were held every six weeks, in comparison with monthly for most of the other outreach clinics). Two of the rheumatology outreach clinics were organised by the hospital (where appointments were made, rather than by practice staff) and this may explain the lack of difference between sites (ie, these practices were not permitted the flexibility of having larger clinics when needed).

There were differences between sites, and within specialty groups between sites, in the length of time, after the appointment time, that patients had to wait at the clinic before seeing the specialist (see table 2). More of the outreach (33%, 43) than outpatients' clinic patients (12%, 16) waited for 10 minutes or less (χ^2 : 8.10; 1 df; $p < 0.01$), while the outpatients were more likely to wait for one hour or more (22%, 27) in comparison with outreach patients (5%, 6) (χ^2 : 14.54; 1 df; $p < 0.001$).

Table 3 Satisfaction with the visit to the specialist clinic (row %): ear, nose, and throat, gynaecology, and rheumatology combined

	Outreach patients (n=132-138)					Outpatients (n=126-130)				
	Excellent % (no)	Very good % (no)	Good % (no)	Fair % (no)	Poor % (no)	Excellent % (no)	Very good % (no)	Good % (no)	Fair % (no)	Poor % (no)
Length of time to get appointment with specialist*	27 (37)	27 (36)	26 (35)	13 (18)	7 (10)	10 (13)	22 (29)	34 (44)	25 (33)	9 (11)
Convenience of location of clinic*	54 (73)	30 (40)	9 (13)	7 (9)	-	14 (18)	18 (24)	36 (47)	22 (28)	10 (13)
Getting through to clinic by phone†	26 (11)	26 (11)	29 (12)	12 (5)	7 (3)	16 (9)	35 (20)	32 (18)	15 (9)	2 (1)
Length of time waiting at clinic to see specialist*	36 (48)	23 (31)	17 (23)	16 (21)	8 (12)	10 (12)	17 (22)	24 (30)	26 (33)	23 (29)
Time spent with the specialist*	27 (36)	27 (36)	30 (40)	11 (14)	5 (7)	10 (13)	24 (31)	40 (50)	21 (27)	5 (7)
Explanation of what was done*	30 (40)	28 (37)	27 (35)	11 (15)	4 (5)	20 (25)	33 (42)	27 (34)	11 (14)	9 (11)
Thoroughness, carefulness, competence of specialist	40 (54)	27 (37)	24 (32)	7 (10)	2 (3)	33 (43)	31 (40)	21 (27)	12 (15)	3 (4)
Personal manner (courtesy, respect, sensitivity, friendliness) of specialist	45 (61)	30 (41)	15 (20)	7 (9)	3 (4)	40 (51)	32 (41)	22 (28)	3 (4)	3 (5)
Ease of making or changing appointment‡	31 (9)	34 (10)	14 (4)	14 (4)	7 (2)	15 (7)	38 (18)	27 (13)	14 (7)	6 (3)
Convenience of appointment day/time*	10 (10)	41 (42)	41 (43)	7 (7)	1 (1)	5 (7)	38 (48)	40 (51)	14 (18)	3 (4)
Waiting area and facilities*	30 (42)	33 (46)	27 (37)	7 (9)	2 (4)	5 (6)	31 (40)	40 (52)	18 (24)	6 (8)
Attention given to what you had to say*	35 (48)	34 (47)	21 (29)	7 (10)	3 (4)	17 (22)	37 (47)	31 (40)	11 (14)	4 (5)
Personal manner (courtesy, respect, sensitivity, friendliness) of reception staff	35 (47)	34 (46)	20 (28)	10 (13)	1 (2)	22 (28)	41 (52)	28 (36)	9 (12)	-
Advocacy/interpreter facilities§	- (4)	-	-	-	-	- (1)	- (3)	- (1)	-	-
Overall visit	31 (42)	40 (54)	20 (27)	8 (10)	1 (1)	17 (22)	36 (46)	28 (35)	16 (20)	3 (4)

* Statistically significant at least at $p < 0.01$ (χ^2).

† Telephone base: 42 outreach, 100 outpatients.

‡ Changing appointment base: 27 outreach and 48 outpatients.

§ Advocacy base: 4 outreach and 5 outpatients.

OUTCOME OF THE CONSULTATION

The outreach patients were more likely than outpatients to be first attenders, and there were differences in the percentages given a follow up appointment after the sampled clinic visit: 37% (50) of outreach patients and 50% (66) of outpatients were given a follow up appointment ($\chi^2: 5.04$ 1df; $p < 0.05$).

More of the outreach patients' GPs than the outpatients' GPs were reported to have sent the specialist the results of tests/investigations when the patient was referred (26% (40) versus 13% (19) - $\chi^2: 8.29$; 1 df; $p < 0.01$), although differences within specialty were only apparent for ENT (26% (18) of outreach patients' GPs sent the specialist the results of tests, in comparison with none of the outpatients' GPs). Outreach patients were also less likely to have any tests requested by the specialist than outpatients: 30% (32) had one or more tests requested by the specialist, in comparison with 57% (61) of outpatients ($\chi^2: 16.11$; 1 df; $p < 0.001$). These differences were evident within each specialty except in ENT, where (excluding routine audiology testing prior to the consultation) outreach patients were more likely to have tests than outpatients (ENT: 27% (11):4% (1) - χ^2 not performed as there were fewer than 5 expected cases in a cell). In gynaecology, 9% (3) of the outreach patients and 39% (19) of the outpatients had tests (χ^2 not performed as there were fewer than 5 expected cases in a cell), and in rheumatology, 57% (19) of the outreach patients and 81% (26) of the outpatients had tests ($\chi^2: 4.28$; 1 df; $p < 0.05$).

Specialists were asked if they had prescribed or suggested any treatment for the patients. They reported they had done so for 76% (118) of the outreach patients and for slightly fewer (67% (108)) of the outpatients ($\chi^2: 4.39$; 1 df; $p < 0.05$). The difference was significant for rheumatology patients. Among rheumatology patients, outreach patients were more likely to be referred for therapy (37% (13)) than outpatients (14% (5) - $\chi^2: 5.36$; 1 df; $p < 0.05$). The difference was also apparent for both ENT

and gynaecology patients, but did not achieve statistical significance. For example, outreach ENT patients were slightly more likely to be given some treatment (usually medication or surgery) than ENT outpatients (75% (53) versus 61% (37); not significant). Among gynaecology patients, outreach patients were more likely to be referred for surgery (56% (28)) than outpatients (38% (24); not significant).

There were no differences between sites, or specialties, in numbers of types of medications prescribed; nor were there any significant differences in numbers of "over the counter" medications purchased.

PATIENTS' PREFERENCES AND SATISFACTION

All patients were asked *where* they preferred to see the specialist - at the GP's surgery, at the hospital, or whether they had no preference. Altogether 73% (101) of outreach patients (72-73% within each specialty) said they preferred the GP's surgery, 1% (2) said they would have preferred the hospital, and 26% (36) reported no preference. In comparison, 44% (63) of the outpatients said they would have preferred to have been seen in the GP's surgery, 22% (31) said they preferred the hospital, and 34% (49) said they had no preference (χ^2 , preference for GP's surgery: 23.70; 1 df; $p < 0.0001$).

Outreach clinic patients were less likely than outpatients clinic patients to say they would like to see something improved in the clinic (11% (14) versus 22% (26) - $\chi^2: 4.32$; 1 df; $p < 0.05$).

The results for the patients' satisfaction items are presented in relation to site only in table 3. Outreach patients were more satisfied than outpatients with the clinic visit in relation to the length of time to get an appointment with the specialist, the convenience of the location of the clinic, the length of time waiting at the clinic to see the specialist, the amount of time spent with the specialist, the convenience of the appointment day/time, the waiting areas and facilities, and attention given to what the

Table 4 Distance from outreach clinic and journey times to and from the clinic in relation to specialty and site

	Outreach				Outpatient			
	ENT % (no)	Gynaecology % (no)	Rheumatology % (no)	Total % (no)	ENT % (no)	Gynaecology % (no)	Rheumatology % (no)	Total % (no)
Journey distance:								
To clinic:								
<3 miles	68 (39)	60 (24)	54 (19)	62 (82)	15 (8)	30 (11)	53 (17)	29 (36)
3<5 miles	12 (7)	24 (10)	31 (11)	21 (12)	22 (12)	30 (11)	28 (9)	26 (32)
5<7 miles	3 (2)	3 (1)	6 (2)	4 (5)	13 (7)	8 (3)	13 (4)	12 (14)
7<15 miles	12 (6)	10 (4)	6 (2)	9 (12)	24 (13)	27 (10)	3 (1)	18 (24)
15<20 miles	3 (2)	—	—	2 (2)	22 (12)	5 (2)	3 (1)	13 (15)
20+ miles	2 (1)	3 (1)	3 (1)	2 (3)	4 (2)	—	—	2 (2)
From clinic:								
<3 miles	75 (43)	58 (23)	57 (20)	65 (86)	12 (16)	26 (10)	52 (16)	26 (32)
3<5 miles	12 (7)	30 (12)	31 (11)	23 (30)	21 (11)	30 (11)	26 (8)	25 (30)
5<7 miles	4 (2)	—	6 (2)	3 (4)	15 (8)	14 (5)	16 (5)	15 (18)
7<15 miles	5 (3)	12 (5)	3 (1)	7 (9)	27 (14)	25 (9)	3 (1)	18 (21)
15<20 miles	2 (1)	—	—	1 (1)	15 (8)	5 (2)	3 (1)	12 (14)
20+ miles	2 (1)	—	3 (1)	1 (2)	10 (5)	—	—	4 (5)
No of respondents	57	40	35	132	52-54	37	31-32	120-123
Journey times:								
To clinic:								
0-5 min	32 (20)	22 (9)	30 (10)	29 (39)	—	5 (2)	9 (3)	4 (5)
6-10 min	24 (14)	41 (17)	32 (11)	31 (42)	7 (4)	16 (6)	20 (7)	14 (17)
11-20 min	24 (14)	22 (9)	29 (10)	24 (33)	40 (22)	50 (19)	53 (18)	46 (59)
21-60 min	20 (12)	15 (6)	9 (3)	16 (21)	42 (23)	29 (11)	18 (6)	31 (40)
61-120 min	—	—	—	—	11 (6)	—	—	5 (6)
From clinic:								
0-5 min	37 (22)	12 (5)	24 (8)	26 (35)	—	3 (1)	9 (3)	3 (4)
6-10 min	27 (16)	48 (19)	35 (12)	36 (47)	3 (2)	17 (6)	21 (7)	13 (15)
11-20 min	25 (15)	22 (9)	32 (11)	26 (35)	44 (23)	47 (17)	52 (17)	47 (57)
21-60 min	9 (5)	18 (7)	9 (3)	11 (15)	40 (20)	33 (12)	15 (5)	30 (37)
61-120 min	2 (1)	—	—	1 (1)	13 (7)	—	3 (1)	7 (8)
No of respondents	59-60	40-41	34	133-135	52-55	36-38	33-34	121-127

patient had to say (significance levels ranged between $p < 0.01$ to $p < 0.001$) for each of these items (dichotomised as satisfied/other, with χ^2 test). Outpatients were not significantly more likely than outreach patients to express greater satisfaction with any item.

PATIENTS' JOURNEYS: DISTANCE, LENGTH OF TIME AND COSTS

Sixty two per cent (82) of outreach clinic patients and 29% (36) of outpatients travelled less than three miles to the clinic (χ^2 : 27.64; 1 df; $p < 0.0001$). Table 4 shows that outpatients had to travel much further to the clinic.

Patients were also asked about their journey times to and from the clinic. Table 4 shows that 60% (81) of the outreach patients had a shorter journey time of up 10 minutes, in comparison with 28% (22) of outpatients (χ^2 : 49.96; 1 df; $p < 0.0001$). In contrast, 37% (45) of the outpatients had longer journey times of over an hour in comparison with 12% (16) of the outreach patients (χ^2 : 20.37; 1 df; $p < 0.0001$).

Outreach patients in each specialty were far more likely than outpatients to rate the journey as "very convenient" (71% (95) and 36% (48) respectively). Altogether 25% (34) of outreach patients and 45% (59) of outpatients rated the journey as "fairly convenient" and 4% (5) of outreach patients and 20% (25) of outpatients rated the journey as "fairly" or "very inconvenient" (χ^2 : "very convenient": 31.90; 1 df; $p < 0.001$; "very/fairly inconvenient": 15.37; 1 df; $p < 0.001$). These differences were evident within each specialty.

These reduced journeys and journey times have implications for patients' travelling costs and associated expenses (eg, arrangements for child care, time off work). For example, of those who took time off work at all, 50% (20)

of outreach patients and 24% (9) of outpatients (fewer) took 1 hour or less off work, 25% (10) of outreach clinic patients and 32% (12) of outpatients took 2 hours off work, and the remainder (25% (10) of outreach and 44% (17) of outpatients) took more time than this off work (χ^2 : 1 hour or less: 5.78; 1 df; $p < 0.05$). This information is being used within the costing formula (cost data analysis ongoing).

Discussion

As Bailey *et al* reported,¹³ in relation to their earlier survey of managers and doctors involved in outreach clinics, fundholding practices have used their purchasing power to secure a better service for their patients, although this leads to a risk of developing two standards of care between fundholding and non-fundholding practices. In line with the findings of Bailey *et al*, the study reported here found that the most common advantages of outreach perceived by doctors were ease of access for patients and shorter waiting lists. However, waiting lists were only significantly reduced for gynaecology patients, despite both GPs and consultants reporting reduced waiting lists for patients as one of the main advantages of outreach regardless of specialty. This is one consequence of relatively infrequent clinics (eg, 4-6 weeks) in relation to the number of referrals. Also, in relation to two of the rheumatology clinics, the hospital took responsibility for making patients' appointments, and therefore GPs did not have the flexibility of being able to book more patients into the clinics when the need arose.

Few of the specialists and GPs in the outreach practices held joint training and education sessions in the outreach clinic, although over half of the GPs felt that their skills/expertise had broadened directly as a result of the outreach clinic. The casemix of patients in

outreach and outpatients clinics was similar in the specialities studied (although one ENT specialist reported that he saw fewer acute patients in outreach). Moreover, the GPs were apparently more involved in the care of the outreach patients in comparison with outpatients (they were more likely to send the specialist in outreach the results of tests, and there were fewer specialist follow up visits in outreach). Although only 58% of the patients' clinical sheets had been completed by GPs, the information was collected from specialists, who completed most of the clinical sheets, and therefore the results were not affected by response bias.

There was some indication that outreach patients were more likely to be treated than outpatients, particularly in rheumatology (where they were more likely to be referred for therapy). The interpretation of this is uncertain, particularly as there were no differences in health status or impact of the condition on quality of life between sites. It is possible that fundholders have easier access to therapeutic services through their purchasing powers (eg, one of the practices with a rheumatology outreach clinic also had a private physiotherapist for the patients). All patients are being followed up at six months in order to assess short term outcomes. This issue will be addressed in future analyses, along with the comparative costs of outreach and outpatient clinic care in the specialities selected for study.

In comparison with outpatients' clinics, the processes of care were generally superior in outreach – patients' convenience and satisfaction were increased while their financial and time costs were decreased. Apart from gynaecology outreach patients, who had a shorter period on the waiting list than gynaecology outpatients, the relative infrequency with which most outreach clinics were held (eg, usually 4–6 weeks) carried the cost of no advantages over outpatients in relation to length of time on the waiting list. Whether the reported improvements are judged to be worth the increased cost to the specialists in terms of their increased travelling times and time spent away from their hospital base (with the consequent implications for hospital patients' care, other work, and teaching time) remains the subject of debate. The data on true costs to the practice, the specialists and trusts, and the short term outcomes of patients have also yet to be analysed. The other contentious issue is that of the rapid development of a two tier service between practices with and without outreach clinics (which may, in turn, reflect fundholding versus non-fundholding practices). Currently, there is not enough specialist time to provide outreach clinics in all general practices. The recent changes in specialist training and accreditation are likely to increase the number of fully accredited specialists below consultant level, making an increase in the number of specialist outreach clinics in general practice likely. A few districts are attempting to avoid any rivalry between practices by providing outreach clinics in community hospitals or large health centres for all GPs to share

within a local patch. The danger then may be that if these "locality outreach clinics" become too large and divorced from personal contact with the practices, they too may develop the same disadvantages of the outpatients' clinics that they were designed to overcome (eg, longer waiting lists, longer follow up periods).

The broader findings of the study reported here echo a previous survey on the criteria GPs wanted to see in contracts for outpatients' care in which a high premium was attached to the improvement of communications between specialists and GPs and between specialists and patients; consultants (or at least registrars) seeing all new patients; reduction of clinic waiting times (<half an hour of appointment time), and the elimination of duplicated, unnecessary investigations.²³ By inviting specialists to run outreach clinics in their surgeries, GPs can attempt to control many of these features and directly improve patient care. It was concluded in that survey (in 1991) that if trusts did *not* meet GPs' demands for higher quality outpatient care, the consequence would be an increase in GP fundholding, which would result in the loss of a district based health needs perspective. The consequence has been more drastic than this, with fundholding GPs purchasing consultant care within their practices and threatening further the original concept of an integrated and equitable NHS.

In all but two cases, the same consultants' outpatients' clinics were used as the control clinic. The justification was that this pairing of clinics would reduce variation (eg, clinical variation). This was not possible in two cases in which the consultants entered private practice full time. The method of attempting to use the same consultant's outpatients' clinics where possible is methodologically sound as long as the process of care in one type of clinic does not rebound on the other clinic. The methodology of controlled trials makes the assumption that the experimental and control groups are independent. However, the paired design of this study (except for two clinics) allows for interaction between the groups (outreach and outpatient clinics) as both are the responsibility of the same consultant. It is foreseeable that the casemix in outpatients' clinics might alter towards more severe or more complex cases if all minor cases are dealt with in outreach clinics. However, as the number of patients seen in outreach clinics still represents only a tiny fraction of the numbers seen in outpatients' clinics, it is unlikely that there is any significant interaction between the two clinics.

Finally, as the data presented here are part of a pilot study, conclusions can only be tentative and must be viewed with caution. They were reported, before the completion of the main study, because of the relative lack of information on outreach clinics in general practice and their predicted growth. However, the pilot study was fairly substantial in size and involved the collection of data from nine outreach clinics with outpatient controls across England. The study included 146 outreach patients and 148 outpatients. This provides sufficient statistical power for comparisons be-

tween sites (outreach and outpatients clinics), although statistical power will be weaker for between specialty comparisons. The larger scale evaluation of outreach clinics across England which has recently been launched by the investigators will be able to test the differences reported here between specialities and in a larger sample of clinics.

The authors are grateful to Margaret Hall and Gerald Pope for coding and data entry, Lesley Marriott for administration, Orla Murphy, Alison Abery and Marie McClay for assistance with following up late respondents, to the patients, doctors and managers who so willingly participated in the study and gave their time, to the members of the study's Advisory Group and to our collaborators from the Universities of Manchester and York: Professor David Wilkin, Mrs Mary Black, Dr Brenda Leese and Mr Toby Gosden. The study was funded by the NHS Management Executive at North Thames Regional Health Authority, R&D Division: NHS R&D Programme on the Primary and Secondary Care Interface. Crown Copyright Reserved, 1995. The views reported do not necessarily represent those of the funding body.

- 1 National Audit Office. *Out-patient services in the NHS*. London: HMSO, 1991.
- 2 Hull FM, Westerman RF. Referral to medical out-patients departments at teaching hospitals in Birmingham and Amsterdam. *BMJ* 1986;293:311-4.
- 3 Cartwright A, Windsor J. *Outpatients and their doctors. A study of patients, potential patients, general practitioners and hospital doctors*. London: HMSO, 1993.
- 4 Sullivan FM, Hoare T, Gilmour H. Outpatient clinic referrals and their outcome. *Br J Gen Pract* 1992;42:111-15.
- 5 Dornan C, Fowler G, Mann JI, Markus A, Thorogood MA. A community study of diabetes in Oxfordshire. *J R Coll Gen Pract* 1983;33:151-5.
- 6 Dowie R. *General practitioners and consultants*. London: King Edward's Hospital Fund for London, 1983.
- 7 Grace JF, Armstrong D. Reasons for referral to hospital: extent of agreement between the perceptions of patients, general practitioners and consultants. *Family Practice* 1986;3:143-7.
- 8 King's Fund Commission on the Future of London's Acute Health Services. *London health care 2010: changing the future of services in the capital*. London: Kings Fund Centre, 1992.
- 9 Moss F, McNicol M. Secondary care beyond Tomlinson: an opportunity to be seized or squandered. *BMJ* 1992;305:1211-4.
- 10 Tomlinson B. *Report of an inquiry into London's health service, medical education and research*. London: HMSO, 1992.
- 11 Department of Health. *Making London better*. Manchester: Health Publications Unit, 1993.
- 12 Beardshaw V, Gordon P, Pampling D. Primary care development zones. *BMJ* 1993;306:323-5.
- 13 Bailey JJ, Black ME, Wilkin D. Specialist outreach clinics in general practice. *BMJ* 1994;308:1083-6.
- 14 Harris A. Specialist outreach clinics. More questions than answers until they have been properly evaluated. Editorial. *BMJ* 1994;308:1053.
- 15 Strathdee G, Williams P. A survey of psychiatrists in primary care, the silent growth of a new service. *J R Coll Gen Pract* 1984;34:615-8.
- 16 Goldberg D, Jackson G. Interface between primary care and specialist mental health care. Editorial. *Br J Gen Pract* 1992;42:267-9.
- 17 Creed F, Marks B. Liaison psychiatry in general practice: a comparison of the liaison attachment and shifted outpatient clinic models. *J R Coll Gen Pract* 1989;39:514-7.
- 18 Davies AR, Ware JE. *GHAA's consumer satisfaction survey and manual*. Washington: Group Health Association of America, 1991.
- 19 Scott B, Brook RH, Lohr KN, Goldberg GA. *Conceptualisation and measurement of physiologic health for adults. Vol 10. Joint disorders*. R-2262/10-HHS. Santa Monica, California: The RAND Corporation, 1981.
- 20 Radosevich DM, Husnik MJ. An abbreviated health status questionnaire: the HSQ-12. Update. Bloomington, MN: *Newsletter of the Health Outcomes Institute* 1995;2:1-4.
- 21 Bowling A. What things are important in people's lives? A survey of the public's judgements to inform scales of health related quality of life. *Soc Sci Med* 1995;41:1447-62.
- 22 Parkerson GR, Broadhead WE, Tse C-KJ. The Duke severity of illness checklist (DUSOI) for measurement of severity and comorbidity. *J Clin Epidemiol* 1993;46:379-93.
- 23 Bowling A, Jacobson B, Southgate L, Formby J. General practitioners' views of quality specifications for "out-patient referrals and care contracts". *BMJ* 1991;303:292-4.