

# HIV infection and AIDS in England and Wales: general practitioners' workload and contact with patients

MORRIS GALLAGHER

CHRISTOPHER FOY

TIM RHODES

PETER PHILIPS

JO SETTERS

MICHELE MOORE

SIMON NAJI

CAM DONALDSON

JOHN BOND

**SUMMARY.** *In mid-1988 a postal survey was conducted of one in five general practitioners in England and Wales, to examine their contact with people with human immunodeficiency virus (HIV) infection, with the acquired immune deficiency syndrome (AIDS) or with worries about HIV infection or AIDS. The response rate was 63.9%. Of the 3339 respondents 22.7% knew of an asymptomatic HIV positive patient within their practice, 5.4% knew of a symptomatic HIV positive patient and 6.4% knew of a patient with AIDS. The estimated annual rate for HIV-related consultations in general practice (including consultations with the 'worried well') was 6.5 per 1000 population. HIV-related consultations occurred more frequently in the four Thames health regions than elsewhere.*

*A sample of 715 practitioners who reported consultations with HIV infected people or those with worries about infection in the previous month, were invited to keep a diary of HIV-related consultations for one week. The response rate to the diary was 64%. Nineteen per cent of the 273 consultations recorded in the diaries were initiated by homosexual men, 16.5% by injecting drug users, 10.3% by the sexual partners of people at risk of infection; 42.9% of consultations were not associated with recognized risk factors.*

*The results indicate that general practitioners have substantial contact with patients with HIV infection, with AIDS and with worries about HIV infection or AIDS. This contact is likely to increase, alongside the anticipated spread of HIV infection, with consequent implications for general practice resources.*

M Gallagher, MRCP, general practitioner and RCGP research fellow, C J W Foy, MSc, lecturer in medical statistics, T Rhodes, BA, research associate, P R Philips, PhD, senior lecturer in medical data processing, J Setters, BA, research associate, C Donaldson, MSc, lecturer in health economics, and J Bond, BA, senior lecturer in sociology, Health Care Research Unit, University of Newcastle upon Tyne. M P Moore, MSc, research fellow and S A Naji, BSc, research fellow, Health Services Research Unit, University of Aberdeen.

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## Introduction

**D**ESPITE a wealth of published epidemiological data there is still considerable uncertainty about the number of people in England and Wales who have become infected with the human immunodeficiency virus (HIV), or who are at risk of HIV infection.<sup>1</sup> Predicting the future growth in numbers is fraught with difficulties.<sup>2</sup> There is also uncertainty about the extent of contact that general practitioners have with these patients. Previous research has described general practitioners' contact with people with HIV infection and the acquired immune deficiency syndrome (AIDS) in the four Thames health regions.<sup>3-6</sup> It is also recognized that general practitioners are consulted by people with worries about AIDS.<sup>7</sup> However, no national study exists describing the degree of contact that general practitioners have with people with HIV infection, with AIDS or with HIV-related worries. Further, little is known about how many people in risk groups, such as homosexual and bisexual men, prostitutes, and sexual partners of those at risk of HIV infection, consult their general practitioners. There is more information about general practitioners' contact with injecting drug users.<sup>8-10</sup>

As the number of people with HIV infection and AIDS increases, so too will the demands made upon general practitioners to provide HIV-related services.<sup>11-14</sup> However, it has been shown that some practitioners do not consider HIV-related opportunistic health education, within consultations, to be a priority,<sup>15</sup> and practitioners have been shown to have limited knowledge about HIV.<sup>3,5</sup>

A major survey of one in five principals in England and Wales was carried out, first, to determine the extent and nature of HIV-related consultations in general practice and, secondly, to obtain a picture of general practitioners' views on a number of HIV and general practice-related issues, such as the provision of health education, counselling and clinical services. The results from the first part of the study are reported here.

## Method

A full description of the survey method and questionnaire content is given elsewhere,<sup>16</sup> and is summarized below.

### Postal questionnaire

A 20% random sample (5359) of general practitioners in England and Wales was selected, stratified by family practitioner committee area and by number of principals in the practice. In May 1988 each selected practitioner was sent a questionnaire which was developed in collaboration with the Health Services Research Unit, University of Aberdeen, which undertook an identical and simultaneous survey of one in three general practice principals in Scotland.<sup>16,17</sup> Two postal reminders were sent to non-responders.

### Consultation diary

Of the 1487 general practitioners who reported experience of HIV-related consultations, 715 had responded by the beginning of June. This sample of practitioners were asked to keep notes in a consultation diary of all HIV-related consultations which

occurred during a week in June or July 1988. An HIV-related consultation was defined as a consultation by someone who was HIV positive, who had AIDS, or who had worries about HIV infection or AIDS, whether 'at risk' of HIV infection or not. Information was collected about the age and sex of the patient, HIV risk status, antibody status of the patient, the patient's reasons for consulting, the general practitioners' activities during or as a result of the consultation, and referrals made.

### Analysis

Data were analysed using the Statistical Package for Social Sciences. The chi-squared test was used to compare responses between groups of practitioners.

### Results

#### Response rate

A total of 3427 general practitioners (63.9%) returned questionnaires suitable for analysis. Response rates varied from 58.0% in the West Midlands region to 74.1% in the South Western region. The overall response rate was less than that for the Scottish survey (77.6%), which was conducted at the same time using an identical questionnaire.<sup>16</sup> There was no evidence that non-respondents differed from respondents.

#### Consultations related to HIV infection

Table 1 details the number of respondents who knew of HIV positive patients or patients with AIDS within the practice. General practitioners in the four Thames regions more frequently knew of patients in these categories than colleagues working elsewhere.

During the month preceding receipt of the questionnaire, 4.5% of 3330 respondents had been consulted by asymptomatic HIV positive patients, 1.7% by symptomatic HIV positive patients and 1.6% by patients with AIDS. Substantially more respondents had seen patients with worries about HIV infection or AIDS; 44.3% of respondents reported they had had such consultations in the last month. This varied from 37.4% of respondents in

**Table 1.** Respondents who knew of one or more HIV positive patients within the practice.

	Total number of respondents	Number (%) who had patients with:		
		Asymptomatic HIV infection	Symptomatic HIV infection	AIDS
Four Thames regions	926	294 (31.7)*	93 (10.0)*	113 (12.2)*
Other regions	2413	464 (19.2)	94 (3.9)	103 (4.3)
Total	3339	758 (22.7)	187 (5.6)	216 (6.5)

\* $P < 0.0001$  versus other regions.

the Trent region to 56.9% in South East Thames. Practitioners working in the four Thames regions were more frequently consulted by patients with worries than practitioners working elsewhere (50.2% compared with 42.1%,  $P < 0.001$ ).

#### Prevalence of HIV infection

During the month preceding the study, 32 patients in England and Wales had been diagnosed as asymptomatic HIV positive, 15 as symptomatic HIV positive and 20 as having AIDS. After weighting for non-response and the sampling fraction, annual incidences of 1.3 per 100 000, 0.6 per 100 000 and 0.8 per 100 000 were estimated for asymptomatic HIV, symptomatic HIV and AIDS respectively. These compare with greater estimated incidences of 13 per 100 000, 7 per 100 000 and 3 per 100 000 for asymptomatic HIV, symptomatic HIV and AIDS respectively, in Scotland.<sup>16</sup> North East Thames had the highest rate for AIDS (13.1 per 100 000), and South East Thames had the highest rate for symptomatic HIV (19.5 per 100 000). The highest estimated incidence for asymptomatic HIV was 13.6 per 100 000 for North East Thames; this was eclipsed by the rate from Tayside health board which was over three times greater (49 per 100 000).<sup>16</sup>

Extrapolation from the reported consultations suggests that the HIV-related consultation rate in May 1988 was the equivalent of more than 300 000 a year over England and Wales (Table 2).

**Table 2.** HIV-related consultations over a one month period.

Regional health authority	Reported number of consultations over one month with:				Estimated annual total consultations <sup>a</sup>	Estimated annual consultation rate per 1000 population <sup>b</sup>
	'Worried well' (HIV related)	Asymptomatic HIV patients	Symptomatic HIV patients	AIDS patients		
Northern	165	8	5	0	15 900	5.2
Yorkshire	162	7	3	5	16 300	4.5
Trent	166	7	9	6	18 200	3.9
East Anglian	107	5	3	0	9 900	5.0
North West Thames	280	48	20	18	33 000	9.6
North East Thames	215	25	10	10	26 700	7.1
South East Thames	347	38	21	18	42 900	11.8
South West Thames	209	24	4	3	21 200	7.4
Wessex	201	15	4	3	18 700	6.5
Oxford	181	11	1	6	17 600	7.1
South Western	260	14	3	2	22 600	7.1
West Midlands	245	11	2	4	27 100	5.2
Mersey	98	4	1	1	10 300	4.3
North Western	192	9	4	0	21 200	8.8
Wales	115	4	2	7	12 000	4.2
Total	2943	230	92	83	314 100	6.5

<sup>a</sup>Sample totals divided by non-response adjusted sampling fractions and multiplied by 12 to yield annual estimates.

<sup>b</sup>Annual weighted estimates divided by regional population.

This would be the equivalent of each practitioner in England and Wales experiencing 12 HIV-related consultations each year.

### Diary of HIV-related consultations

The diary was completed by 458 of 715 practitioners (64%), recording a total of 273 HIV-related consultations during the study week with 267 patients.

HIV-related consultations accounted for approximately one in 220 surgery consultations and one in 580 home visits. Table 3 shows the age and sex of patients consulting. Table 4 shows that the largest proportion of consultations were with homosexual men. Homosexual men formed a greater proportion of HIV-related consultations in the four Thames regions than elsewhere; 29.1% (34 consultations) compared with 11.5% (18 consultations) ( $P < 0.001$ ). This is perhaps not surprising as the largest group of people who are known to be HIV positive (homosexual men) originate from the four Thames regions. Patients who were considered by the practitioner as not belonging to a recognized risk group were included in the 'none of these' category; this group accounted for 43% of all consultations.

The HIV status of 68.1% of the patients consulting was unknown to the general practitioner; 15.0% of consultations were by patients who were classified by the general practitioner as HIV negative; 7.9% of consultations were by people known to be asymptomatic HIV positive; 4.5% of consultations were by people known to be symptomatic HIV positive, and 4.5% of consultations were by people known to have AIDS.

Advice or information was the commonest reason for the consultation recorded by 38.1% of patients; 16.5% requested the HIV antibody test, 9.9% presented with drug-related problems, and 8.1% presented with symptoms which they thought were of AIDS.

Table 5 shows that the commonest activity carried out within an HIV-related consultation was health education. Health education was performed during a smaller proportion of HIV-related consultations in the four Thames regions than elsewhere; 47.0% (55 consultations) compared with 66.0% (103 consultations) ( $P < 0.01$ ).

Almost 30% of consultations resulted in referrals: to hospital for further investigation or treatment in 10.2% of consultations; for HIV antibody blood testing in 7.7%; to a voluntary agency in 5.5%; to a sexually transmitted disease clinic in 5.9%. Most referrals were to only one agency, although five patients were referred to two.

### Discussion

Together with the surveys in Scotland and Northern Ireland<sup>16-18</sup> the survey reported here provides the first national picture of the extent and nature of HIV-related consultations occurring in general practice. It is acknowledged that there are limitations to a postal questionnaire and to the estimates based on the findings. It is also recognized that media campaigns make patients (and practitioners) more aware of HIV and therefore more likely to seek medical advice. However, at the time this study was conducted there were no major national advertising campaigns in progress.

The estimated annual consultation rate for all consultations related to HIV (including those for patients with worries about HIV) in England and Wales of 6.5 per 1000 population was comparable with conditions such as left heart failure (6.5 per 1000) and Parkinsonism (5.3 per 1000).<sup>19</sup> This compared with an estimated annual consultation rate for Scotland of 7.1 per 1000 population. The greatest estimated annual consultation rate in England and Wales was 11.8 per 1000 for South East Thames; this consultation rate was exceeded by only two Scottish health boards, Tayside (15.7 per 1000) and Lothian (13.3 per 1000).<sup>16</sup>

**Table 3.** HIV-related consultations over one week by patient's sex and age.

Age group (years)	Number (%) of consultations		
	Female	Male	Total
0-14	0	3	3 (1.2)
15-24	36	26	62 (25.5)
25-44	53	87	140 (57.6)
45-64	8	25	33 (13.6)
65+	2	3	5 (2.1)
Total	99	144	243 <sup>a</sup> (100.0)

<sup>a</sup>Age/sex data not recorded for 30 consultations.

**Table 4.** HIV-related consultations over one week by patient characteristics.

Patient group	Number (%) of consultations (n = 273)
1. Homosexual men	52 (19.0)
2. Intravenous drug users	45 (16.5)
3. Sexual partners of groups 1, 2, 4, 5, 6 or 7	28 (10.3)
4. Sexual partners of heterosexuals abroad	12 (4.4)
5. Recipients of infected blood	9 (3.3)
6. Bisexual men	7 (2.6)
7. Prostitutes	3 (1.1)
8. None of these	117 (42.9)

n = total number of consultations.

**Table 5.** Content of HIV-related consultations over one week.

Activity	Number (%) of consultations at which activity performed (n = 273)
Health education	158 (57.9)
Counsel about HIV blood test	90 (33.0)
Physical examination	79 (28.9)
Advise on safer sex	60 (22.0)
Advise on intravenous drug use	25 (9.2)
Take blood for HIV testing by GP	16 (5.9)
Give literature	11 (4.0)
Take blood for HIV testing by practice nurse	5 (1.8)
Provide clean needles/syringes	1 (0.4)
Provide condoms	0 (0.0)

n = total number of consultations.

HIV-related consultations in England and Wales, and indeed throughout the United Kingdom, can therefore be considered to be a substantial source of workload during the early part of 1988. Unlike consultations for conditions such as left heart failure, which could be seen as uncomplicated, HIV-related consultations are likely to involve discussion of sensitive areas such as sexual behaviour and use of injectable drugs, which may involve the practitioner in time-consuming health education, counselling and clinical assessment. It is anticipated that as more people acquire HIV infection, HIV-related consultations will increase.

The largest group of patients who consulted their general practitioner were those who were worried about HIV infection or AIDS. This contact, especially with those who are considered

to be 'at risk' of infection, provides general practitioners with opportunities to give health education and advice to patients who are perhaps more likely to change their sexual and drug using behaviour. It is noteworthy that nearly half of the consultations that practitioners chose to record in the diary survey were by people without recognized risk factors. This type of consultation is likely to comprise a large part of the HIV-related workload of general practitioners in the future.

The main activities performed by practitioners during HIV-related consultations were health education, counselling about the HIV blood test, providing advice on safer sex or injecting drug use, and physical examination. These findings contrast with those of King<sup>6</sup> who invited over 600 practitioners to recall the activities performed during previous consultations with HIV positive patients. The main actions taken by these London practitioners were treatment of a physical problem, counselling or support, and referral to a sexually transmitted disease clinic. The difference in these two work records, apart from comparing a prospective record with a retrospective report, can probably be attributed to a difference in population and HIV-related problems. In this survey general practitioners were managing patients who were, in the main, uninfected with HIV and whose main needs were for information and advice. The patients in King's survey were predominantly homosexual HIV positive men who were more likely to have physical problems, require referral to a sexually transmitted disease clinic, or require counselling and support.

In conclusion, general practitioners already have substantial contact with patients with HIV-related problems. This contact is likely to increase, alongside the anticipated spread of HIV infection, with consequent implications for general practice resources. It is important that general practitioners are willing and able to cope with the inevitable increase in the number of people with HIV infection and AIDS who are cared for in the community. We recommend an increased level of general practitioner training in the management of HIV-related conditions.

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## Address for correspondence

Dr Morris Gallagher, Health Care Research Unit, 21 Claremont Place, Newcastle upon Tyne NE2 4AA.

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