The size of the differences we observed was surprising and, along with the inverse relation we have described between quality of service provision and practice catchment area, suggests that the time may have come to re-examine the geographical distribution of general medical practices. Optimal practice list size has not yet been defined, although larger practice lists have been suggested to be disadvantageous to patients.¹⁷ Larger practice catchment areas may also be associated with disadvantages to patient care, and further research is needed into this neglected but important area of health care planning.

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Appendix—Services and quality indicators for practices in each band³

Band A: practices providing a basic service

Patient registration
Appropriate personal general medical services to all registered patients
Prescribing and system for repeat prescribing
Arrangements for out of hours cover
Over 75 health check
Fulfil availability requirements
Approved premises
Suitably qualified staff, job descriptions, and contracts
Agreed practice area
Adequate medical record keeping
Appropriate certification
Practice leaflet
Participation in training

Band B: practices providing a normal service

All services provided in band A
Ensure patients have access to child health surveillance services
Maternity medical services
Contraceptive services
Health promotion band 1
Practice nurse
Partnership agreement

Band C: practices providing a full range of services

All services provided in bands A and B
Child health surveillance services
Minor surgery
Health promotion band 2
Achieve 50% target for cervical screening
Achieve 70% target for vaccinations and immunisations
Partial computerisation
Meet health and safety requirements
Participation in audit
Regular team meetings

Band D: practices providing an extended range of services

All services provided in bands A, B, and C
Health promotion band 3
Practice based complaints procedure
Staff development plans
Achieve 80% target for cervical screening
Achieve 90% target for vaccinations and immunisations
Service development plan
Needs assessment and service audit
Written prescribing policy
Teaching and training
Service innovation and development

Genital *Chlamydia trachomatis* infections in primary care

Jonathan D C Ross, Sheena Sutherland, John Coia

Chlamydia trachomatis remains one of the commonest causes of pelvic pain, infertility, and ectopic pregnancy in young women^{1,2} and is often asymptomatic. Genitourinary medicine clinics in Britain provide information on the prevalence of sexually transmitted disease which is used for monitoring and to set targets for disease control. Increasing recognition of *C trachomatis* as a genital pathogen is likely to result in patients presenting in other health care settings, including general practice. The resources to ensure resolution

of infection or to trace sexual contacts who, if untreated, may reinfect the patient may not be available in the community.

We conducted a study to determine the number of genital *C trachomatis* infections diagnosed by general practitioners in the Lothian region of Scotland and what proportion of patients were subsequently referred to the genitourinary medicine clinic. Lothian, which includes Edinburgh, has a population of 750 000 and has only one genitourinary medicine clinic. We also assessed variation between practices in the number of patients tested for *C trachomatis*.

Subjects, methods, and results

We included all patients who had a genital swab taken by their general practitioner to test for chlamydia in 1995, excluding repeat tests. Specimens were analysed by the three microbiology laboratories in Lothian by

Correspondence to:
Dr Ross.

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**Department of
Genitourinary Medicine,
Edinburgh Royal
Infirmary, Edinburgh
EH3 9YW**
Jonathan D C Ross, *senior
registrar*

**Department of Medical
Microbiology, University
of Edinburgh, Edinburgh**
Sheena Sutherland, *senior
lecturer*

**Department of Medical
Microbiology, Western
General Hospital,
Edinburgh**
John Coia, *consultant
microbiologist*

enzyme linked immunosorbent assay (ELISA) or culture tests. We calculated the average specimen rate per general practitioner for the practices and divided them into high and low specimen rates (above and below the median).

The names and dates of births of patients with a positive test result were cross referenced with the records of the genitourinary medicine to assess the proportion who attended within three months. Those referred and not referred were compared with respect to age, sex, and whether the practice was within the city boundaries.

The 619 general practitioners in Lothian were grouped into 98 practice groups (82 contained a single practice and 16 contained two to six practices). The practice of origin was not known for 13 specimens.

After we excluded repeat negative specimens ($n = 201$), repeat positive specimens ($n = 6$), and patients with negative and positive results within the study period ($n = 40$) the study population consisted of 3943 patients. Eighty one practices sent a genital swab for testing and 57 had at least one positive result. The median number of specimens per general practitioner was 4.5 (range 0-63.6). The specimen rate was similar for practices in Edinburgh (4.4) and those outside (5, $P = 0.77$).

In all, 141 (3.5%, 95% confidence interval 3.4% to 3.7%) patients had positive results, and 19 subsequently attended the genitourinary medicine clinic. The referral pattern was not affected by the patients' age (median age 22 for those referred *v* 23 for those not referred, $P = 0.96$) or sex (odds ratio 2.1, 95% confidence interval 0.3 to 14.9) or by the location of the practice (0.7, 0.3 to 1.7; table).

Comment

General practitioners in the Lothian region of Scotland screened almost 4000 people in 1995 for genital chlamydial infection. The positivity rate (3.5%) was similar to that reported by genitourinary medicine or family planning clinics, and the absolute number of cases represents an important clinical problem.

Rates of testing varied widely between practices. Although practice demographics vary, it is unlikely that

Table 1—Rate of referral to genitourinary medicine clinic with chlamydial infection among Lothian patients diagnosed in general practice

	No (%) referred (n = 19)	No (%) not referred (n = 122)
Location of practice:		
Within Edinburgh	12 (63)	87 (71)
Outside Edinburgh	7 (37)	35 (29)
Sex of patient:		
Female	18 (95)	108 (89)
Male	1 (5)	14 (11)
Age:		
<16	1 (5)	1 (1)
16-20	5 (26)	36 (30)
21-25	8 (42)	52 (43)
26-30	4 (21)	26 (21)
>30	1 (5)	6 (5)
Unknown	0	1 (1)

this alone accounts for the difference, and the proximity of the local genitourinary medicine clinic did not influence community testing rates.

Only 13% of patients diagnosed in general practice were referred to the genitourinary medicine clinic. Since general practitioners do not generally have the resources to test for cure, trace sexual contacts, or screen for other sexually transmitted diseases this low referral rate is concerning.³ In addition the medicolegal implications of inadequate management of women with chlamydial infection subsequently presenting with secondary infertility or ectopic pregnancy may be serious.

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Postal survey of management of cervical *Chlamydia trachomatis* infection in English and Welsh general practices

Diana Mason, Sally Kerry, Pippa Oakeshott

*See editorial
by Johnson et al
and pp 1186, 1192*

Chlamydia trachomatis infection in women is common, often asymptomatic, and may cause pelvic inflammatory disease, tubal infertility, or ectopic pregnancy. Screening for chlamydia in Britain is haphazard, and the management of infected people is sometimes inadequate.¹ However, despite recommendations for expansion of chlamydia testing in primary care,² little is known about the diagnosis and management of cervical chlamydia infection in general practice. We did a cross sectional survey of general practices to find out how many offer chlamydia testing and how they would manage a woman found to have chlamydia infection.

Subjects, methods, and results

In June 1994 we sent a confidential postal questionnaire to a random stratified sample of 500 gen-

eral practices drawn from all 98 family health services authorities in England and Wales. The introductory letter was addressed to the practice managers, who were asked to give the questionnaire to the general practitioner most involved in smear testing. The questionnaire included an open question on the management of chlamydia infection. Non-responders were sent a second questionnaire.

We received 374 completed questionnaires, a response rate of 75%. Of the practices which provided details, 63 were in rural areas, 180 in towns, and 51 in inner cities; 315 said that their local laboratory provided a chlamydia service and 264 had tested a woman for chlamydia in the previous year. However, eight practices had experienced difficulty in obtaining appropriate swabs or slides. Half the general practitioners usually offered advice on avoiding sexually transmitted infections to young women having gynaecological examinations.

Table 1 shows the characteristics of respondents and their management of women with chlamydia infection. We compared the antibiotics used by general practitioners, where specified, with Centers for Disease Control guidelines.³ These recommend a seven day course of doxycycline 100 mg twice daily, tetracycline 500 mg four times a day, or erythromycin 500 mg four times a

Correspondence to:
Dr Oakeshott.

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