# Chlamydia trachomatis in primary care: knowledge and practice in Glasgow

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A recent Department of Health report recommended the establishment of a selective screening programme for Chlamydia trachomatis infection.5 We report a survey which suggests that primary care clinicians may not yet be prepared for this task.

Keywords: Chlamydia trachomatis; primary care; screening programmes.

### Introduction

TENITAL Chlamydia trachomatis infection is a major public Chealth issue owing to its high prevalence and substantial (preventable) morbidity. Detection and treatment of the infection has been shown to reduce long term morbidity.1 Reported prevalence rates in primary care have ranged from 2% to 12%,<sup>2</sup> with higher rates in inner-city practices.

The subject of screening for genital Chlamydia trachomatis infection is actively being debated in the United Kingdom<sup>3,4</sup> and an expert advisory group has recently reported to the Chief Medical Officer on the matter. It concluded that the case for Chlamydia screening is strong and suggested a selective approach.5

Implementation of a selective screening programme would necessitate substantial input from general practitioners (GPs) and practice nurses (PNs). However, are they sufficiently well prepared for this role? A few studies have described treatment and follow-up of genital chlamydial infection in general practice, 6,7 but little is known of current levels of knowledge on crucial aspects of practice, such as criteria for testing, sampling techniques, and management of infected patients.

This paper reports the results of a survey carried out to establish self-reported levels of knowledge and practice of genital Chlamydia trachomatis infection in primary care in Glasgow.

# Method

In April 1997 a confidential postal questionnaire was sent to all GPs and PNs in the Greater Glasgow Health Board (GGHB) area. The questionnaire asked specific questions about the practitioners' criteria for testing women for Chlamydia trachomatis infection and their sampling technique. Questions were also

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asked about follow-up for positive tests, including initiation of partner notification (contact tracing) and the involvement of genitourinary medicine (GUM) clinics. A second questionnaire was sent to non-responders. The data were entered onto an MS Access database. Simple frequency distributions of responses to each question were then calculated.

### **Results**

A final response rate of 64% (578/909) was obtained following a single reminder; 12 questionnaires were blank and excluded from the final analysis. There was a 60% response rate from GPs (373/625) and a 68% response rate from PNs (193/284). In total, 77% (169 of 219) of practices in the GGHB area responded.

The majority of responders (82%) stated that they took swabs from the endocervix, although other sites were also sampled. When asked what material they were sampling, the majority (61%) were aiming to collect secretions or discharge and 42% were aiming to collect cells. Most responders (68%) rotated the swab gently. Only one-quarter wiped away secretions before sampling and only one-fifth rotated the swab vigorously.

Almost all of the responders (92%) said that they took specimens from women, whereas less than one-quarter took specimens from men. Figure 1 shows the criteria for testing women.

Only half of the responders indicated that they would involve GUM in the management of chlamydial infections. Many GPs and PNs would involve this service only if there were any complications with clinical management. Half of all respondents who made comments said that what they most needed from GUM was a protocol for the treatment of Chlamydia trachomatis.

Only 21% of responders said that they had tried to initiate partner notification after a positive result. All of these identified problems with partner notification and over half said that there were problems because partners were not patients of the practice.

# **Discussion**

Clearly, this postal questionnaire study cannot describe actual practice and is also limited by the fact that diagnostic techniques (and, consequently, sampling techniques) for Chlamydia trachomatis infection subsequently changed. The survey was conducted six months before the ligase chain reaction testing for chlamydial infection was introduced in the city. At the time of the survey, the diagnostic tests used were antigen detection (using enzyme-linked immunoassay and/or direct immunofluoresence) from direct genital tract samples. The Department of Health report stated that 'the existing educational system for GPs confers adequate competency for Chlamydia screening in primary care'. This survey has identified important gaps in professionals' knowledge and reported practice in the effective diagnosis and management of genital Chlamydia infection. These relate to sampling techniques, indications for testing in asymptomatic patients, the importance of partner notification, and appropriate involvement of GUM services.

First, the results show that GPs and PNs are uncertain about the pathophysiology of genital chlamydial infection and, in particular, how this impacts upon sampling methods. The majority of clinicians said they were sampling cervical secretions despite the fact that Chlamydia trachomatis is an intracellular organism.

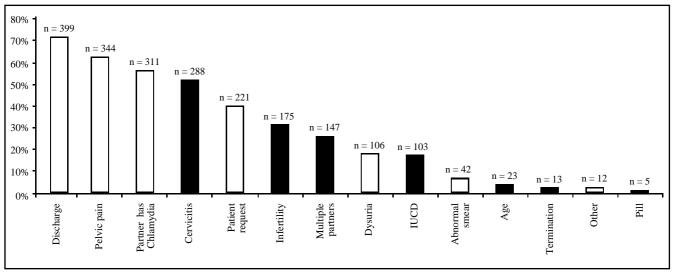


Figure 1. Stated indications for testing in women. (More than one option accepted; highlighted bars indicate likely screening criteria.)

Inappropriate sampling technique may lead to the perception that chlamydial infection was not common — reflected in this frequent comment from responders: "there is no problem with Chlamydia because the swabs come back negative, they are very rarely positive".

Secondly, responders were only testing symptomatic women for genital Chlamydia and were unclear on indications for testing asymptomatic patients.

Thirdly, this survey shows that there is a need to raise awareness of the importance of partner notification in eliminating the disease. Male to female transmission of the infection is over 70%8 and repeated episodes of infection exponentially increase the risk of tubal infertility. Almost half of the responders did not initiate partner notification in their practices. This is not surprising as GPs and PNs do not have time to do this adequately and partners of infected patients may not belong to the same practice.

Partner notification is a key example of an activity which could be more effective if stronger working links were forged between primary care and GUM. The fourth main finding of this survey was that GPs only considered it necessary to involve GUM in the event of a complication. This may reflect an attitudinal problem with the professionals as well as patients — a reluctance to make use of GUM.10

The findings of this study highlight some of the educational and organisational challenges which must be overcome if a selective screening programme is to be introduced on a wide scale. Primary care professionals are those likely to be doing the bulk of the screening, so it is obviously essential that they are clear about selection criteria for screening, how to take specimens for testing, and how to manage infected patients. Our survey also indicates the importance of developing a system of shared care with the GUM service in order that partner notification will be successful and the aims of screening — eliminating pelvic inflammatory disease and tubal damage caused by *Chlamydia trachomatis* — might be fulfilled.

# References

- Scholes D, Stergachis A, Heidrich FE, et al. Prevention of pelvic inflammatory disease by screening for cervical *Chlamydia trachomatis*. N Engl J Med 1996; **334:** 1362-1366.
- Stokes T. Screening for Chlamydia in general practice: a literature review and summary of the evidence. *J Public Health Med* 1997; **19:** 222-232.

- Johnson AM, Grun L, Haines A. Controlling genital Chlamydia infection. [Editorial.] *BMJ* 1996; **313**: 1160-1161.
- Boag F, Kelly F. Screening for *Chlamydia trachomatis*: the case for screening is made, but much detail remains to be worked out. [Editorial.] BMJ 1998; 306: 1474.
- Department of Health. Summary and conclusions of the Chief
- Medical Officer's expert advisory group on Chlamydia trachomatis. London: Department of Health, 1998.

  Mason D, Kerry S, Oakeshott P. Postal survey of management of cervical Chlamydia trachomatis infection in English and Welsh practices. BMJ 1996; 313: 1193-1194.
- Ross JDC, Sutherland S, Coia J. Genital Chlamydia trachomatis infections in primary care. BMJ 1996; 313: 1192-1193
- Lycke E, Lowhagen GB, Halligen G et al. The risk of transmission of genital Chlamydia trachomatis infection is less than that of genital
- Neisseria gonorrhoeae infection. Sex Transm Dis 1980; 7: 6-10. Westrom L, Joesoef R, Reynolds G et al. Pelvic inflammatory disease and infertility: A cohort study of 1844 women with laparoscopically verified disease and 657 control women with normal laparoscopic results. Sex Transm Dis 1992; 19: 185-192.
- McLean HL, Reid M, Scoular A. Health alliances? other sexual health services and their views of genitourinary medicine. Genitourin Med 1995; 71: 396-399.

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