

## IMPLEMENTATION OF THE SIGN GUIDELINE ON GENITAL CHLAMYDIAL INFECTION IN PRIMARY CARE: INSIGHTS FROM AN EXPLORATORY WORKSHOP

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### INTRODUCTION

In March 2000, the Scottish Intercollegiate Guidelines Network (SIGN) published explicit guidance for the management of genital *Chlamydia trachomatis* infection in Scotland.<sup>1</sup> The key recommendations included: testing for chlamydia in defined groups (patients presenting with defined symptoms, opportunistic testing in asymptomatic sexually active women under the age of 25, and in women 25 years and older who had had two or more sexual partners in the past year or a change of partner in the last year); the adoption of nucleic acid amplification tests as the preferred laboratory detection method; and the referral of patients diagnosed with chlamydial infection to trained health advisers, enabling support with partner notification (see Appendix 1).

Primary care services carry the main burden for widespread implementation of the activities envisaged in this guideline. However, despite its key role, relatively little is known about the guideline's direct impact on the routine clinical activities of general practitioners (GPs). In this report of a series of focus group discussions with a sample of GPs, the participants' attitudes to the guideline are presented and their experiences of attempting to implement the guideline's recommendations, including partner notification, are discussed.

### METHODS

A one-day course was held in March 2001, aimed at developing GPs' understanding of sexual health. Within this context, 33 GPs participated in a session exploring their attitudes to adoption of the SIGN guideline on genital chlamydial infection. All were engaged in general practice in either rural or urban settings, 31 in Scotland and two in England. Two focus group exercises were held. The first explored the contents of the SIGN guideline, initially by completion of a short questionnaire, followed by a facilitated, semi-structured discussion allowing participants to share their attitudes to and experiences of specific issues, including access to nucleic acid amplification tests for diagnosis of chlamydial infection, selection of patients for testing and management of patients found to be positive for chlamydia. Recurrent themes were identified and analysed from notes and materials prepared by workshop participants and facilitators.

The second exercise was conducted in three smaller groups: two groups of 11 participants and one group of 12. Each group participated in a facilitated, semi-

structured discussion, which was organised in three parts: firstly, a review of the principles, aims and methods of partner notification; secondly, a short discussion about participants' experiences of partner notification work; and finally, discussion about difficulties that could arise in attempting partner notification in a general practice setting. A plenary session was then conducted by one of the three facilitators, to summarise the small group discussions and to generate ideas about forms of support that could facilitate implementation of the guideline in a general practice setting.

### RESULTS

#### Focus group discussion on implementation of the SIGN guideline (quantitative data from 22 completed questionnaires)

Eight participants stated that nucleic acid amplification detection tests were available in their local area, three stated that they were unavailable and the remaining 11 (50%) did not know what chlamydia detection method was used by their local laboratory. Twenty (87%) participants stated that a cervical swab was their preferred specimen when testing for chlamydial infection in women undergoing speculum examination.

Table 1 shows the frequency with which patients test for chlamydial infection in several defined clinical situations specified in the SIGN guideline.

The majority of participants prescribed antibiotics specified by the SIGN guideline when treating uncomplicated chlamydial infection in non-pregnant women; nine stated that they usually prescribed azithromycin in this situation, eight usually prescribed doxycycline, two oxytetracycline and two ofloxacin. One respondent did not answer this question.

Participants were asked to indicate how they usually deal with the issue of notifying the sexual partners of chlamydia – positive index patients (Figure 1).

Participants were asked to indicate how often they were able to provide appropriate health education, including appropriate reading materials, to patients recently diagnosed with chlamydial infection. Five participants were able to do so more than 90% of the time; three 70–90% of the time; three 50–70% of the time; three 10–50% of the time; and seven <10% of the time.

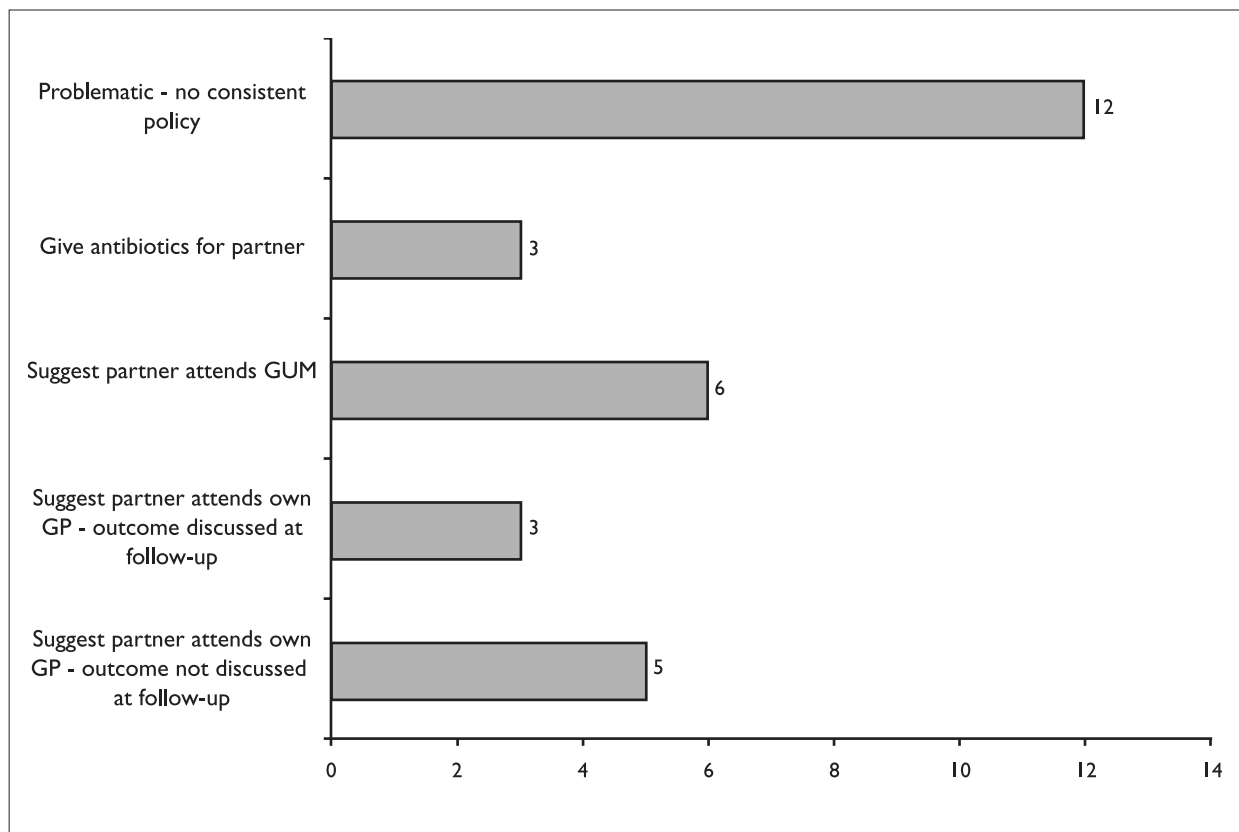
Only two participants had ever taken part in any clinical

**TABLE 1**  
Frequency of chlamydia testing in symptomatic and asymptomatic patients (22 responses).

<b>SYMPTOMATIC PATIENTS</b>					
Frequency of testing in defined clinical situation	>90%	70–90%	50–69%	10–49%	<10%
PID in women <sup>1</sup>	19	–	1	–	2
Men with urethral discharge <sup>2</sup>	16	1	2	1	–
Breakthrough bleeding on COCP <sup>3</sup>	1	–	1	8	12
Vaginal discharge	9	3	7	3	–
Lower abdominal pain in a sexually active woman	4	2	6	4	6
<b>ASYMPTOMATIC PATIENTS</b>					
Frequency of testing in defined clinical situation	>90%	70–90%	50–69%	10–49%	<10%
Women <25 if sexually active <sup>4</sup>	–	1	1	5	13
Prior to IUCD insertion <sup>5</sup>	10	1	–	1	5
Partners of those with chlamydial infection	14	3	2	–	2
Mothers of babies with conjunctivitis <sup>6</sup>	15	2	–	–	–
Women >25 if two or more partners in past year <sup>7</sup>	2	2	2	4	9

**Additional notes and comments by participants**

<sup>1</sup> Pelvic inflammatory disease  
<sup>2</sup> One respondent stated 'always refer to GUM [genitourinary medicine]' and one stated 'never see'  
<sup>3</sup> Combined oral contraceptive pill  
<sup>4</sup> 'Always offer' (one respondent)  
<sup>5</sup> 'Do not insert IUCDs [intrauterine contraceptive devices], so not applicable' (five respondents)  
<sup>6</sup> 'Not applicable' (two respondents)  
<sup>7</sup> 'Don't ask' (two respondents) and 'always offer' (one respondent)



**FIGURE 1**  
Usual partner notification practice (23 responses).

audit activity on the topic of chlamydial infection; the other 20 participants had not.

### Focus group on SIGN guideline

There was a perceived lack of resources, including education, time and appropriately trained staff, which threatened GPs' perceived ability to embark on screening and to deal appropriately with a positive chlamydia test result.

#### Comments included:

'Increased expectations of GP activity coincide with decreased resources: some of the demands made on GPs' time are unrealistic and management of partner notification is one of these.'

'Know zero about it.'

'Primary care needs more training and resources for screening and contact tracing.'

Expectations that GPs and primary care professionals adopt the SIGN guideline were considered premature, in the sense that chlamydia testing forces GPs to enter an arena in which they often feel disempowered, given the lack of necessary resources and sexual health management skills in many general practices.

#### Comments included:

'There is a real risk that implementation of the guideline will consist of "box ticking" only, rather than a true improvement in care.'

'GPs are aware of making compromises all the time; management of chlamydia is a prime example of this.'

Doubts were expressed about the appropriateness and practical confidentiality restraints of exploring sexual behaviour issues in general practice consultations, most of which are not primarily about sexual lifestyle. There was some discussion about whether or not sexual health issues should be recorded in patients' case notes. Some participants did not record discussions about tests for sexually transmissible infections, on the basis that such a record may prejudice a patient's life insurance prospects, and adopted the view that GPs have an obligation to disclose all information to an insurance company if the patient has agreed to the GP giving a report. Others felt that the GP could be selective, and could choose, for example, to state in an insurance report that 'it is not our practice policy to disclose sexual health information'.

#### Comments included:

'I am uncertain that family practices should be delving into our patients' sex lives.'

'I am doubtful about whether GPs are any good at discussing sex.'

The recommendations were perceived as having been developed by an external body, with inadequate consideration of the prevailing circumstances in general practice, and subsequently being imposed on GPs.

#### Comments included:

'This is another imposition without thinking about our ability to implement the guideline in general practice.'

Unanimous disagreement was expressed with several of the clinical indications for testing defined in the SIGN guideline. Specifically, chlamydia testing was felt to be inappropriate in general practice for the majority of presentations of women with breakthrough bleeding on oral contraception and of lower abdominal pain in sexually active women (Table 1).

### Focus group on partner notification

Two major themes arose independently in each of the three small groups: first, lack of resources, time and training; and second, the difficulties and anxieties (for GPs and patients) associated with negotiating the complex confidentiality issues raised by partner notification. A third theme, which was raised explicitly by one group and which generated further discussion in the plenary session, was a perception that initiatives such as the SIGN guideline on management of chlamydial infection generate increased general practice workload, without realistically taking account of the resources available to GPs.

In common with the discussion on implementation of the SIGN guideline in general, time constraints and lack of skills were identified as the main factors mitigating against effective partner notification in general practice. Partner notification is time-consuming and adds to the already excessive workload faced by many GPs. However, it was also commented that GPs may be able to confirm partner notification outcomes more easily than is the case in genitourinary medicine (GUM) departments, if contacts are registered with the same practice.

Several common themes emerged from discussions about confidentiality and the ethical aspects of partner notification for chlamydial infection. Patients' familiarity with the GP may facilitate or prevent participation in partner notification, depending on the circumstances of the specific case. In small, rural practices, the existence of personal and professional relationships with contacts was perceived as an inhibiting factor, making GPs reluctant to approach people whom they know may have been at risk of infection. Confidentiality is difficult to maintain in some practices, particularly in rural areas. Patients' perceptions of confidentiality will affect their willingness, or unwillingness, to participate in partner notification. However, urban practices have more transient populations, making partner notification practically difficult.

If an index patient does not agree to patient or provider referral, but their partner is registered with the practice, this can create a dilemma for the GP: should the partner be informed without the index patient's consent? Should treatment be given on a pretext that allows the GP to avoid mentioning the index patient?

With these themes in mind, a plenary session was conducted, in which participants were asked to discuss the types of support that would facilitate management of partner notification in general practice. These included better access to support from health advisers in GUM and more and better information on GUM services in general. Training for GPs and primary care professionals on sexual health education and the negotiation of partner notification contracts was felt to be imperative. Availability of a standard letter for partner notification, which could be given to the index patient for presentation to their partner(s), was regarded as a potentially useful tool. This could operate on the same principle as contact slips (currently used in GUM settings), but would also contain information about the infection and its management. There was general agreement that this could facilitate the negotiation of partner notification between GPs and their index patients in situations where time was severely constrained. Ideally, it should be possible to download such letters from a GUM website, with secure access to prevent malicious use by the public.

#### CONCLUSION

This opportunistic sample of GPs, self-selected on the basis of their interest in sexual health, revealed a number of insights into the potential limitations of implementing the SIGN guideline on *Management of Genital Chlamydia trachomatis Infection* in general practice. These include not only lack of knowledge, skills and time but also a sense of strategic disengagement with the guidelines, which were seen as having been imposed on primary care without due regard to the practical or ethical issues raised.

The relatively low level of awareness of which laboratory tests were being used in each participant's locality would clearly influence testing policy, if this workshop's observations were to be replicated more widely. Several of the clinical indications for testing specified in the SIGN guideline are viewed as inappropriate in general practice.

The entire issue of partner notification is currently viewed by GPs as highly problematic, raising sensitive issues that cannot be dealt with at present, given the lack of necessary resources and sexual health management skills in many general practices. This is a matter of urgent concern, given the crucial importance of partner notification to health outcomes following treatment of women for genital chlamydial infection. There is a direct linear relationship between an individual woman's risk of tubal infertility and the number of separate episodes of repeated chlamydial infection she experiences;<sup>2</sup> by default, one of

the main determinants of reinfection is timely and effective co-treatment of current sexual partners. Clearly, an efficient and well coordinated partner notification system is an essential component of the overall community strategy for management of genital chlamydial infection; without it, the health gain achieved by antimicrobial treatment of identified cases is negligible.

The challenge of effective management of genital chlamydial infection provides an exciting opportunity for imaginative new partnerships to be formed between primary care and specialist sexual health services, along the lines proposed by the recent consultation document, *A National Strategy for Sexual Health and HIV*.<sup>3</sup> However, it is essential that the concerns of the GPs that were expressed in this exploratory workshop are further investigated and that their unmet needs in respect of the resources they require to effectively implement the SIGN guideline should receive an appropriate response.

#### NOTE

The Quick Reference Guide to accompany *SIGN 42 Management of Genital Chlamydia trachomatis Infection* has been reproduced with the permission of the Scottish Intercollegiate Guidelines Network as Appendix I to this paper.

#### REFERENCES

- 1 Scottish Intercollegiate Guidelines Network. Guideline 42: Management of Genital *Chlamydia trachomatis* Infection. Edinburgh: SIGN; 2000. <http://www.sign.ac.uk/> [accessed August 2001].
- 2 Weström L, Joesoef R, Reynolds G et al. Pelvic inflammatory disease and fertility. A cohort study of 1844 women with laparoscopically verified disease and 657 control women with normal laparoscopic results. *Sex Transm Dis* 1992; **19**:185–92.
- 3 Department of Health. *The National Strategy for Sexual Health and HIV*. London: Department of Health; 2001.





## Quick Reference Guide

### TESTING FOR CHLAMYDIA TRACHOMATIS (CT) SHOULD BE PERFORMED:

In women with symptoms and signs which may be attributable to Ct:

- B – vaginal discharge
- postcoital/intermenstrual/breakthrough bleeding
- inflamed/irritable cervix (which may bleed on contact)
- urethritis
- pelvic inflammatory disease (PID)
- lower abdominal pain in the sexually active
- reactive arthritis in the sexually active.

In men with symptoms and signs which may be attributable to Ct:

- B – urethral discharge
- dysuria
- urethritis
- epididymo-orchitis in the sexually active
- reactive arthritis in the sexually active.

In other specific circumstances:

- A – all women undergoing termination of pregnancy
- B – all patients attending genitourinary medicine clinics
- B – all patients with another sexually transmitted infection (STI), including genital warts
- B – sexual partners of those with Ct
- B – mothers of infants with chlamydial conjunctivitis or pneumonitis
- B – all women undergoing uterine instrumentation who have risk factors for Ct
- B – semen and egg donors
- C – sexual partners of those with suspected Ct (e.g. PID, epididymo-orchitis).

### Opportunistically:

- B – in women younger than 25 years and sexually active
- in women aged 25 years or older with two or more partners in the last year or a change of sexual partner in the last year.
- All clinicians treating sexually active women should maintain a high level of awareness of the need to offer a screening test for genital *Chlamydia trachomatis* infection to women who have an increased risk of infection.

- It is important that the reason for, implications of, and results of any test carried out are explained to the individual being tested.

### LABORATORY TEST

- B The recommended laboratory test is a nucleic acid amplification test (LCR or PCR).

### SAMPLING

- In women who are undergoing a vaginal examination, the specimen should be an endocervical swab.
- In women not undergoing a vaginal examination, a first void urine (i.e. the first part of the stream) should be obtained.
- A self-taken vaginal swab is an alternative specimen for women who cannot void urine at the time of the visit.
- B In men a first void urine is the sample of choice.

KEY  A  B  C   indicates grade of recommendation  good practice point

### TREATMENT

Uncomplicated infection in women and men:

- A – azithromycin 1g stat *or*
- doxycycline 100mg twice daily for 7 days *or*
- ofloxacin 200mg twice daily for 7 days *or*
- minocycline 100mg once a day for 9 days *or*
- lymecycline 300mg once a day for 10 days.

B Taking into account the issue of compliance with therapy, it is recommended that uncomplicated genital Ct infection is treated with azithromycin 1g stat.

Upper genital tract infection in men:

- C – doxycycline 100mg twice daily for 7 to 14 days *or*
- oxytetracycline 250mg four times a day for 7 to 14 days.

Uncomplicated Ct infection in pregnancy:

- A – erythromycin 500mg four times a day for 7 days *or*
- amoxicillin 500mg three times a day for 7 days
- A All women undergoing termination of pregnancy should receive antimicrobial therapy effective against Ct at the time of the procedure.

Upper genital tract infection in women:

- C – doxycycline 100mg twice daily for a minimum of 10 days plus metronidazole 200mg three times a day *or* 400 mg twice daily for the first 7 days
- ofloxacin 400mg twice daily may be used as an alternative to doxycycline
- clindamycin 450mg four times a day may be used as an alternative to metronidazole.

### INITIATION OF TREATMENT

B Initiate treatment without waiting for laboratory confirmation of infection in patients with symptoms and signs attributable to chlamydial infection and their sexual partners.

### PARTNER NOTIFICATION

- B Patients should be referred to trained health advisers for support with partner notification.
- B Patients should be offered the choice of patient, provider or conditional referral.
- C In men with symptomatic Ct infection, contact all partners over the four weeks prior to onset of symptoms.
- C In women and asymptomatic men, contact all partners over the last six months or the most recent sexual partner (if outwith that time period).

*Patient referral:* index patients themselves inform their sexual contacts to seek treatment.  
*Provider referral:* the health care provider informs a patient's contacts anonymously that they should seek treatment.  
*Conditional referral:* the health care provider notifies contacts if the patient has not done so after a given number of days.

### FOLLOW-UP

- B Patients should be interviewed at follow-up with regard to compliance with therapy and risk of re-infection.
- B In those patients who have been compliant with therapy and in whom there is no risk of re-infection, a test of cure need not be performed.
- B Test of cure/re-infection established by molecular amplification assay should be performed a minimum of three weeks after the initiation of therapy, to avoid false positive results.

### HEALTH EDUCATION

- B All patients with Ct infection should receive appropriate health education, including relevant reading materials.
- B Opportunities should be taken to deliver education in a wide variety of non-health care settings (e.g. youth clubs, community centres, schools). Education about chlamydial infection should be integrated with other sexual health education and condom promotion initiatives.

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Royal College of Physicians, 9 Queen Street, Edinburgh EH2 1JQ  
Available on the SIGN website: [www.sign.ac.uk](http://www.sign.ac.uk)

This guideline was issued in March 2000 and will be reviewed in 2002

## **RESPONSE FROM THE CHAIRMAN OF THE SIGN 42 GUIDELINE DEVELOPMENT GROUP**

I think it is important to clarify the role of SIGN guidelines. The SIGN guidelines examine treatable conditions where there is evidence to suggest that current management in Scotland is suboptimal. The guideline group then develops evidence-based recommendations which, if implemented, would bring management of that condition up to acceptable standards.

However, I quote from SIGN's website, which states that 'SIGN is responsible for the development of national guidelines, but not for their implementation into practice. This is a responsibility of each individual NHS Trust.'

It is, therefore, up to local clinicians to decide among themselves how they wish to progress with implementation, in which case they might choose to use the guideline as an important part of the evidence base justifying any additional resources that might be needed.

I also think it is somewhat unfair to describe the guideline as an 'imposition' upon GPs by an 'external body'. There were two GPs on the guideline development group, five GPs acted as specialist reviewers, and the national meeting to present the draft guideline was open to all healthcare professionals in Scotland, with many GPs in attendance.

### **Where are we with regard to the management of chlamydial infection in Scotland?**

On the basis of available evidence, the guideline group recommended improved diagnostic methods as standard,

routine testing for chlamydia in specific situations where there was greater likelihood of infection, and that trained staff should undertake contact tracing of positive cases. We (the SIGN guideline development group) were aware that there was no resource available to trace contacts in primary care, and therefore recommended referral to GUM. It is a perfectly reasonable alternative to set up an arrangement that bolsters contact tracing in the community, and once some evidence of efficacy has accrued, this can be incorporated into future guidelines.

However, it is clear from this article that some GPs are uncomfortable dealing with issues relating to sexual health. For those who wish to undertake training to allow them to raise the issue comfortably, I would encourage them to enrol in one of the Sexually Transmitted Infection Foundation (STIF) courses, which are provided several times per year throughout the UK. Sessions during this course will also examine the evidence of why it is important to undertake chlamydia testing in young women with breakthrough bleeding and lower abdominal pain.

If lack of resources is the overwhelming issue preventing implementation, then the guideline provides the evidence base to justify that requirement. I would alter the slightly negative message in this article, and rather, look upon the workshop in a more positive light; it is part of the process by which local clinicians have looked at how they might implement the guideline, identified possible links to GUM, and then introduced plans for improved management of this important infection in primary care.

**Dr G.R. Scott FRCP Edin., Chairman of the SIGN 42 guideline development group**