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Some authors found that the longest delay was the time at the laboratory<sup>5</sup> as in case 1. (The mother was negative in the first trimester of pregnancy, became positive in the late third trimester, but the results came too late—after delivery.) Improved laboratory services will solve this problem.

Patients have often been treated by nonvenereologists without contact tracing, like the father of case 1, and his diagnosis and therapy were not adequate. With regard to confidentiality patients often receive non-professional treatment or undergo self treatment.

Unfortunately, the difficulty in dealing with patients having a poor educational background and insufficient sexual knowledge results in the impossibility to find all the sources of infection. The parents of patient 2 did not seek medical help, although the father had penis lesion. The mother did not visit a doctor after she was pregnant. Even her labour was at home, as it was in the mother of case 4.

Another big problem is prostitution, which is not legal and cannot be controlled in our country. The mothers of patients 3 and 4 were prostitutes, who did not seek medical assistance at all.

More than half of our patients are unable to indicate the name or address of the contacts (the father of case 1 and the mothers of cases 2, 3, 4), thus demonstrating the high frequency of occasional sexual contacts and the lack of protective measures.

The government health system has existed in Bulgaria for more than 50 years but social and economic changes require a new insurance system and new approaches concerning STDs. The system for notification of STD patients should be improved in order to ensure a higher confidentiality. The reported cases also emphasise the necessity of cooperation between dermatologists, obstetricians, neonatologists, and paediatricians.

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# Condom access does not ensure condom use: you've got to be putting me on

Approximately 15 million incident cases of sexually transmitted infections (STIs) occur in the United States each year.¹ These figures are troubling given the availability of primary prevention measures that sexually active people can use to avoid unprotected intercourse, including latex condoms.² Although considerable attention has focused on making condoms widely available, surprisingly little research¹ has examined whether condom availability is sufficient to ensure condom use.

We recruited a convenience sample of 98 male students through advertisements posted on two Georgia university campuses to evaluate sexual risk taking behaviour. Men were required to be aged 18−29 years, full time students, and to have used condoms for ≥5 episodes of vaginal intercourse. After providing written informed consent, eligible men participated in a standardised interview about their experiences with condoms. The study was approved by the institutional review board of Emory University.

The 98 respondents averaged 22 years of age (SD 3). Sixty four (65%) were white, 27 (28%) were African-American, five (5%) were Asian American, and two (2%) were of mixed race. Men reported a mean of 18 lifetime sex partners (median 8 partners, range 1–150); most (96%) reported having vaginal intercourse during the previous year. Eighty five men (87%) used condoms because of concern about acquiring STIs; of these, most men were also concerned about pregnancy.

However, 73 men (74%) reported having vaginal sex without a condom when they "felt one should have been used" to protect against pregnancy and/or infection (median lifetime number of times without condom 8; range 1-450). Among men acknowledging unsafe sex, 42 (58%) admitted ever having unprotected intercourse despite ready access to condoms "within the same room" (median 5 times; range 1-300). Overall, condoms, although readily accessible, were not used in more than one third (37%) of lifetime acts of intercourse where risk of pregnancy or infection was perceived (832 of 2254 acts). Reasons for men's most recent failure to use condoms, despite accessibility, included unwillingness to interrupt foreplay (48%), fear of loss of sensation or erection (17%), and inebriation

Among all 98 participants, 58 men (59%) also reported occasions in which they intended to use a condom, only to find that they did not have a condom with them. At the most recent occasion when condoms were not available, 34 men (58%) chose to have unprotected intercourse. The remaining 24 men (42%) elected to abstain from intercourse and instead participated in non-penetrative sexual activities posing less risk for STI acquisition, or waited until a condom could be obtained.

Despite the small size and self selected nature of our population, these findings point to formidable barriers to "safer sex," at least in this heterosexual setting. Condom availability did not ensure condom use, even when condoms were needed. Similarly, the lack of availability of condoms did not deter most men from having intercourse. Avoiding sexual intercourse with an infected partner is the most effective way to prevent STIs.<sup>2</sup> However, for sexually active people, condoms can only reduce the risk of infection when they are both readily available and actually put on.<sup>5</sup> 6

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#### **Contributors**

Both authors have made substantial contributions to the intellectual content of the paper. LW was responsible for the conception and design of the study, locating funding for the study, acquisition of study data, data analysis and interpretation, and drafting and revision of the research letter; MS was involved with the conception and design of the analysis and interpretation and drafting and revision of the research letter.

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# Resolution of the recent performance problem of Abbott LCx Chlamydia trachomatis assay. Issues of repeat testing for confirmation of chlamydial infection

In February 2001, Abbott Laboratories issued a device correction notice to users of their LCx *Chlamydia trachomatis* assay suggesting that initially reactive ligase chain reaction (LCR) tests should be repeated on the same sample to validate the test result. A recent alert (December 2001) from the Medical Devices Agency (MDA, DA2001(09)) indicates that the device correction is still in force and points out the resource implications where retesting is required. We offer some data on LCR performance characteristics during this period and before.

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**Table 1** Repeat LCR testing and PCR testing of initially positive LCR urines during the Wirral Chlamydia Pilot (Sept 1999 to Oct 2000, baseline) and for 3 month periods since the issue of the device correction (February 2001)

	No of urines	PCR+	PCR+/-	PCR-	PCR (a)	PCR (b)
Initial LCR positive (Sep 99–Oct 00) Repeat LCR:	960					
Positive	883 (92%)	****	Not done		****	
Equivocal (0.5-0.99)	12 (1.3%)	6		6		
Negative	65 (6.8%)	13		50		2
Initial LCR positive (Mar–May 01) Repeat LCR:	134					
Positive	74 (55%)	70	1	3		
Equivocal (0.5-0.99)	18	5		15		
Negative	42 (31%)	6		36		
Initial LCR positive (Jun-Aug 01) Repeat LCR:	121					
Positive	95 (79%)	90	3	2		
Equivocal (0.5-0.99)	2 (1.7%)			2		
Negative	24 (19.8%)	5		19		
Initial LCR positive (Sep–Nov 01) Repeat LCR:	90					
Positive	87 (96.6%)	82	3	1	1	
Equivocal (0.5-0.99)	1 (1.1%)	1				
Negative	2 (2.2%)			2		

The Department of Health pilot study on "Opportunistic screening for genital chlamydial infection in Portsmouth and Wirral" ran for a year up to October 2000. During that study, the standard adopted for reporting chlamydial infection included a repeat LCR test on all first catch urine samples that were initially LCR positive. Samples giving discrepant LCR results were further tested by Roche Cobas (PCR) polymerase chain reaction. Chlamydia LCR urine screening, with repeat LCR/PCR testing of positives, has continued in the Wirral pilot area and is also being used in other research projects locally.

Following the original device correction, we continued to carry out a repeat LCR but additionally included a PCR test on all initially positive LCR urine samples. Analysis of our data (table 1) suggests that compared to the baseline (satisfactory) performance during the Wirral pilot there was indeed a noticeable LCR reproducibility problem when the device correction notice was issued. Since then, however, the LCR performance has improved gradually to be at least as good as in the pilot period.

The MDA alert properly deals with kit performance in generating *a valid test result*. However, this incident also prompted us to consider the wider issues of repeat testing for confirmation of *chlamydial diagnosis*.

We have recently also examined the reproducibility of our Roche Cobas chlamydia PCR results and are concerned to have found that of 282 initially PCR positive urine samples only 237 gave repeat PCR positive results.

We sense that there may be a mistaken view adopted by some clinicians that all nucleic acid amplification tests (NAAT) are infallible for sensitivity and specificity. It is important that patients should be made aware (as we did

during the screening pilot) that no test is 100% accurate. Problems of reproducibility have been reported for both LCR1 and PCR. We recognise the dilemma in repeat testing of samples that give positive reactions in chlamydia NAATs; on the one hand, a low organism load in the specimen makes repeat positivity a matter of statistical chance of retesting a portion with detectable numbers—so cases will be missed. On the other hand, repeat confirmation ensures a more robust diagnosis is made which is so important in the light of the major implications of a chlamydia diagnosis for those who consider themselves well but decide to take a screening test. We would welcome debate on the need for retesting or independent confirmation of positive chlamydia NAATs and support the need for continuous monitoring of all tests to ensure their consistent optimal performance.

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## **NOTICES**

# International Herpes Alliance and International Herpes Management Forum

The International Herpes Alliance has introduced a website (www.herpesalliance.org) from which can be downloaded patient information leaflets. Its sister organisation the International Herpes Management Forum (website: www.IHMF.org) has launched new guidelines on the management of herpesvirus infections in pregnancy at the 9th International Congress on Infectious Disease (ICID) in Buenos Aires.

# Pan-American Health Organization, regional office of the World Health Organization

A catalogue of publications is available online (www.paho.org). The monthly journal of PAHO, the Pan American Journal of Public Health, is also available (subscriptions: pubsvc@tsp.sheridan.com).

# 10th International Symposium on Human Chlamydial Infection

16-21 June 2002, in Antalya, Turkey

The scientific programme will encompass the breadth of chlamydial research from clinical and epidemiological studies to molecular and cell biology of all species of *Chlamydia*. Further details: Professor A Demir Serter, Department of Clinical Microbiology and Infectious Diseases, Ege University, Faculty of Medicine, 35100 Bornova, Izmir, Turkey (fax: 90 232 343 71 30; email: ISHCIX@itsa.ucsf.edu).

# 10th International Congress on Behçet's Disease

27-29 June 2002, Berlin

Further details: Professor Ch Zouboulis (email: zoubbere@zedat.fu-berlin.de).

# 20th World Congress of Dermatology

1-5 July 2002, Paris

Further details: P Fournier, Colloquium, 12 rue de la Croix St Faubin, 75011 Paris, france (tel: +33 1 44 64 15 15; fax: +33 1 44 64 15 16; email: p.fournier@colloquium.fr; website: www.derm-wcd-2002.com).

# 18th Congress on Sexually Transmitted Infections IUSTI-Europe 2002

12–14 September 2002, Vienna, Hofburg Conaress Center.

Chair of the Congress, Director of the European Branch of IUSTI: Angelika Stary, MD (Austria)

Further details: Angelika Stary, c/o Administrative and Scientific Secretariat, Vienna Academy of Postgraduate Medical Education and Research, Alser Strasse 4, A-1090 Vienna, Austria (tel: (+43 1) 405 13 83 13; fax: (+43 1) 407 82 74; email: iusti 2002@medacad.org; website: www.iusti-europe-2002.org).