PostScript

LETTERS

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Diagnosis and exclusion of gonorrhoea in women

The recent report[1] of the death of rectal and throat sampling in women was an exaggeration. I write lest anyone think there has been a conversion from long held,[2 3] and recently reiterated[4 5] views. Bradbeer and Mears questioned the utility of taking rectal and throat swabs in female gonorrhoea contacts by reference to a poster presentation, of which I was a co-author, at the IUSTI Asia-Pacific Conference 2002.[6]

In this poster the conclusion stated that: ''At this clinic rectal microscopy and culture, and throat culture in women did not aid diagnosis. There appears to be a general reduction in the usefulness of these tests since the last major assessment.'' The authors offered one possible explanation (of several) for this but did *not* conclude (as implied by Bradbeer and Mears' citation) that these investigations could be abandoned.

While it is vital that we have sensitive and specific methods for *diagnosing* STIs, including gonorrhoea, we have always, even during the post-war mode of gonococcal incidence, the mid-1970s, spent most of our time *excluding* gonorrhoea. We need to be able to tell, with confidence, those who ask us, that they have *not* got gonorrhoea. Further, we need to be able to reassure those treated that the infection has been eliminated. One conclusion from our study, which we hope to publish after peer review, may well be that the testing protocols adhered to in 2001 were inadequate to exclude gonorrhoea. Their adequacy would not improve were we to abandon samples from rectum and oropharynx.

For the record, the correct citation (their reference 11) and order of authors is as given here.[6] We did not suggest limiting swab sites to the urethra and cervix; the number of rectal investigations was not (as implied) 338, but 115 by culture and 94 by microscopy; throat swabs numbered 119. Finally, we did not see ''338 cases of female contacts of GC.'' The number of female contacts of gonorrhoea seen and reported in our series was 101.

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Barriers to HIV testing: a survey of GUM clinic attendees

HIV testing forms an important part of the national strategy for sexual health and HIV of the UK government. It proposes that all genitourinary medicine (GUM) clinic patients who are attending for ''their first screening for sexually transmitted infections''[1] should be offered an HIV test. Previous research has suggested that uptake of HIV testing in antenatal clinics is midwife dependent and possibly doctor dependent within the context of the GUM clinic.[2 3] The aim of this study was to identify factors associated with being offered an HIV test and having an HIV test in an inner city sexual health clinic with a universal HIV testing policy before publication of the government's national strategy for sexual health and HIV.[1]

We conducted a prospective questionnaire based survey of all patients of unknown HIV status presenting over a 2 month period. All patients who saw a doctor, except those attending for follow up, were invited to participate. The main outcome measure was the offer and uptake of HIV testing.

A total of 585 (49.4%) questionnaires were returned. There were no significant differences between responders and non-responders in terms of sex, age, STI, or HIV prevalence; 78.0% of eligible patients reported that they were offered an HIV test. The offering of an HIV test was associated with the patient's ethnicity, intention to test, use of class A/B drugs, and previous STI diagnosis (table 1). This difference remained after controlling for language. No significant difference was observed in patients' intention to have a test according to ethnicity (30.1% for white patients versus 21.0% for non-white patients, $p = 0.103$). The offering of an HIV test was not associated with whether the doctor was in training, routinely conducted an HIV outpatient clinic, or was male or female.

The uptake of HIV testing (42% overall) was associated with an HIV test being offered, partner numbers, having new partners while abroad and/or unprotected sex, and previous STI diagnosis. None of the patient's sociodemographic characteristics considered (including their ethnicity) were significantly associated with HIV testing uptake. Patients for whom English was not their first language were more likely to test than patients whose first language was English ($p = 0.014$). There was no significant difference in uptake according to doctor's training status, or whether they conducted an HIV clinic.

Despite relatively high rates of offering and uptake of HIV testing, there were disparities between different groups within the population. Some of the more vulnerable groups within the community appeared less likely to be offered HIV testing despite having the same uptake if a test was offered. Factors that may contribute to the disparity in offering of HIV tests include the clinician's perception of the patient's risk, prejudice (both on a personal and institutional level) and time constraints of staff. The British Co-operative Clinical Group identified ''lack of time'' as the most common reason that HIV testing was not offered.[4] With increasing numbers of healthcare practitioners becoming involved in sexual health care, appropriate standards of practice need to be maintained to ensure equity of access to HIV testing.

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Table 1 Variations in reporting of being offered an HIV test and HIV test uptake*

Patient characteristics	Reported being offered an HIV test			Offered a test and having an HIV test		
	n/N†	(%)	p Value	n/N†	(%)	p Value
All patients	327/419	(78.0)	–	160/319	(50.2)	–
Sociodemographics						
Sex			0.387			0.613
Male	138/170	(81.2)		66/133	(49.6)	
Female	187/245	(76.3)		94/184	(51.1)	
Ethnicity			0.005			0.372
White	186/223	(83.4)		93/181	(51.4)	
Not white	136/189	(72.0)		65/133	(48.9)	
Among non-white patients:			*0.073*			*0.283*
Black Caribbean	*63/82*	*(76.8)*		*28/61*	*(45.9)*	
Black African	*15/20*	*(75.0)*		*9/15*	*(60.0)*	
Black British	*29/40*	*(72.5)*		*11/28*	*(39.3)*	
Asian	*6/9*	*(66.7)*		*2/6*	*(33.3)*	
Other ethnicity	*23/38*	*(60.5)*		*15/23*	*(65.2)*	
English is first language			0.360			0.014
Yes	280/353	(79.3)		129/274	(47.1)	
No	43/59	(72.9)		29/41	(70.7)	
Sexuality			0.497			0.060
Heterosexual	293/378	(77.5)		148/286	(51.7)	
Homosexual/bisexual	29/34	(85.3)		9/28	(32.1)	
Sexual behaviour						
Number of heterosexual partners, past year			0.667			<0.001
0/1	114/147	(77.6)		43/113	(38.1)	
2+	184/227	(81.1)		108/181	(59.7)	
Number of homosexual partners, past year			0.586			0.151
0/1	93/117	(79.5)		46/91	(50.5)	
2+	19/25	(76.0)		6/19	(31.6)	
New partner(s) while abroad in past 5 years			0.152			0.097
No	156/205	(76.1)		70/154	(45.5)	
Yes	82/99	(82.8)		48/82	(58.5)	
Unprotected vaginal sex with 2+partners in past year			0.847			0.002
No	162/210	(77.1)		72/161	(44.7)	
Yes	122/156	(78.2)		74/120	(61.7)	
Unprotected anal sex with 2+partners in past year‡			0.729			0.103
No	172/228	(75.4)		83/170	(48.8)	
Yes	13/18	(72.2)		9/11	(81.8)	
GUM clinic history						
Previous STI diagnosis			0.029			0.007
No	180/218	(82.6)		100/177	(56.5)	
Yes	112/157	(71.3)		44/112	(39.3)	
Last HIV test			0.207			0.093
1–5 years ago	77/97	(79.4)		47/76	(61.8)	
More than 5 years ago	18/24	(75.0)		6/18	(33.3)	
Never	226/291	(77.7)		104/220	(47.3)	
Intention to have an HIV test			<0.001			<0.001
No, not intention/don't know	231/314	(73.6)		70/225	(31.1)	
Yes, intention	95/103	(92.2)		90/93	(96.8)	
Clinician seen for consultation						
Clinician's training status§¶			0.079			0.536
Completed training	103/143	(72.0)		50/99	(50.5)	
In training	96/115	(83.5)		56/96	(58.3)	
Clinician's sex§			0.392			0.082
Male	88/119	(73.9)		46/86	(53.5)	
Female	107/132	(81.1)		60/105	(57.1)	
Clinician also runs an HIV clinic§			0.684			0.770
No	121/158	(76.6)		64/118	(54.2)	
Yes	74/93	(79.6)		42/73	(57.5)	
Drug use						
Used cocaine/heroin/speed/ecstasy/LSD in past year			0.028			0.722
No	202/270	(74.8)		99/200	(49.5)	
Yes	105/121	(86.8)		53/103	(51.5)	

*Patients who reported an HIV risk in the past 3 months, an HIV test in the past year, or that their reason for not testing was that they had tested recently, were excluded from the analysis. This was to ensure that only individuals in whom HIV testing would be unequivocally appropriate in terms of risks and resources were included in our analysis.
†Base (N) excludes patients who did not report a valid response (''yes'', ''no,'' ''don't know'') to whether or not they had been offered an HIV test, as well as item non-response.
‡Heterosexual and/or homosexual anal sex.
§Base (N) excludes 151 patients for whom data on their clinician's characteristics could not be obtained, in addition to 25 patients who did not report whether or not they had been offered an HIV test and whether or not they were having an HIV test, as well as item non-response.
¶Consultants and clinical assistants are considered as those who had completed their training, while specialist registrars, senior house officers, and gynaecological staff are considered as being in training.

Factors that may increase HIV testing uptake in those who decline to test

The aim of improving uptake of HIV testing is threefold: to reduce the proportion of undiagnosed HIV infection within the community; to ensure early access to treatment for those found to be infected; and to limit further transmission.[1] Little research has occurred within the United Kingdom to understand reasons why patients decline an offer of HIV testing. An aim of this study was to identify factors that would persuade patients who declined to have an HIV test, to test in an inner city sexual health clinic with a universal HIV testing policy.

We conducted a prospective questionnaire based survey of all patients of unknown HIV status presenting over a 2 month period. All patients who saw a doctor, except those attending for follow up, were invited to participate.

In all, 585 (49.4%) questionnaires were returned. There were no significant differences between responders and non-responders in terms of sex, age, STI, or HIV prevalence. Forty two per cent of all eligible patients reported that they were having an HIV test. Half (51.6%) of the patients who did not test for HIV reported that they felt at low risk of HIV as a reason for not testing. The second and third most common reasons were "being too scared of the result" (19.1%) and "not wanting to know" (14.2%). Reported sexual behaviours, previous STI diagnosis, and STI prevalence for patients who reported not testing because they considered themselves at low risk of HIV, were compared with patients who gave other reason(s) for not testing (table 1). In general, those who felt themselves to be at low risk of HIV tended to report fewer sexual risk behaviours.

In all, 198/225 who were not testing reported at least one situation that would make them consider testing. The main situations for which they would "very likely" consider testing were if a partner or ex-partner was HIV positive (97.1%, 95% CI: 93.2 to 99.1). Two thirds (63.6%, 95% CI: 52.7 to 73.6) of woman were "likely" or "very likely" to test if they became pregnant. The availability of medicines to treat HIV would make half (49.2%, 95% CI: 35.7 to 61.3) "likely" or "very likely" to test, while a cure for HIV would make two thirds (69.1%, 95% CI: 56.4 to 79.1) "likely" or "very likely" to test.

Overall, the analysis of reasons not to test and patient's appreciation of risk suggests people test as a response to behaviour and are aware of the risks. However, a substantial proportion of patients perceiving themselves at low risk, the principal reason for not testing, did have significant risk factors (for example, 36.1% reported unprotected sex with two or more partners in the past year, 46.3% had a previous STI diagnosis, and 9.6% a current STI diagnosis). Although participants appeared to be largely aware of the risks associated with their behaviours they did not appear to be aware of many of the benefits of testing. A substantial proportion of patients appeared unaware of the benefits of testing in terms of pregnancy or the availability of medicines to treat HIV. In the age of effective antiretroviral therapies, approximately half of patients not testing were "likely" or "very likely" to test if medicines were available to treat HIV. Promoting the benefits of combination antiretroviral therapies may significantly increase uptake of HIV testing.

Table 1 HIV risk perception by reported sexual behaviours and STI diagnosis among patients reporting that they were not having an HIV test (n = 218)

	Reported "felt at low HIV risk" as a reason for not testing for HIV				
	No		Yes		
	n/N	(%)	n/N	(%)	p Value*
Sexual behaviour					
2+ heterosexual partners, past year	52/86	(60.5)	42/104	(40.4)	0.006
2+ homosexual partners, past year	10/28	(35.7)	9/49	(18.4)	0.089
New partner(s) while abroad in past 5 years	26/75	(34.7)	22/87	(25.3)	0.192
Ever paid/been paid money for sex	4/96	(4.2)	9/113	(8.0)	0.257
Unprotected anal and/or vaginal sex with 2+ partners in past year	40/65	(61.5)	30/83	(36.1)	0.002
Unprotected vaginal sex with 2+ partners in past year	33/83	(40.2)	29/107	(27.1)	0.003
Unprotected anal sex with 2+ partners in past year	5/59	(8.5)	2/73	(2.7)	0.144
STI diagnosis					
Previous STI diagnosis	53/93	(57.0)	50/108	(46.3)	0.130
Current diagnosis†‡§	12/59	(20.3)	7/73	(9.6)	0.080
Chlamydia trachomatis	9/51†	(17.6)	7/60†	(11.7)	0.371
Genital herpes	1/5†	(20.0)	0/1†	(0.0)	0.624
Gonorrhoea	0/31†	(0.0)	0/39†	(0.0)	–
Trichonomas	5/50†	(10.0)	1/61†	(1.6)	0.053
Syphilis	0/50†	(0.0)	0/61†	(0.0)	–

*According to χ^2 statistic.
†Positive diagnosis within 1 week of completing questionnaire.
‡Not all patients tested for all STIs.
§Diagnosed with at least one of HIV, *Chlamydia trachomatis*, genital herpes, gonorrhoea, trichomonas, syphilis.

Contributors

FB and STS conceived and designed the study, helped to analyse and interpret the data, drafted and revised the article; CHM analysed the data and helped draft and revise the article; DM helped in study conception and design, and revision of the article; BC and PK helped in design of the study and final revision of the article.

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HPV in cervix and vagina

Cervical cancer screening by Papanicolaou (Pap) smear has shown its use in reducing both incidence and mortality. Nowadays, cervical tumours are mostly diagnosed in women who were not, or not properly, screened. The invasive sampling method of screening is one of the reasons why women do not participate. The efficiency of cervical cancer screening could be increased if a less invasive test were available. Today, there is extensive scientific evidence that infection with high risk human papillomavirus (HPV) is associated with the development of cervical cancer. An international survey of more than 1000 cervical cancers showed that HPV DNA was present in 93% of all tumours.[1] Further investigation of the HPV negative carcinomas showed that, with improved methodology, 99.7% of all cervical tumours contained HPV DNA.[2] Recently, it has been suggested that self sampled vaginal material can be used for HPV detection. Several investigations—on a limited number of women—have shown a good correlation between self sampled vaginal material and a cervical sample taken by a professional.[3 4]

This study aimed to investigate the HPV prevalence in cervix and vagina on samples taken by a professional. Between October 2001 and March 2003, 159 women were enrolled in this study. Of these women, 96 visited their GP for a routine Pap smear, whereas 63 women, working as prostitutes, visited an STI clinic. The study protocol was approved by the medical ethics board of Antwerp University. The GP or STI doctor first took a vaginal sample using a polyurethane tipped swab (Culturette EZ, Becton Dickinson) and then, after inserting a speculum, a cervical sample using a Cervex-Brush (Rovers, Oss, Netherlands). Samples were treated as described previously.[5] HPV DNA amplification was performed using the GP5+/6+ HPV polymerase chain reaction (PCR).[6] Detection of PCR products was performed in an enzyme immunoassay format.[7] After detection of HPV with a HPV probe

Table 1 HPV prevalence in vaginal and cervical samples

		Cervix		
		HPV+	HPV−	Total
Vagina	HPV+	25	2	27
	HPV−	6	112	118
Total		31	114	145

cocktail, typing analysis was performed for HPV types 16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66, and 68. The correlation of HPV in the vagina and the cervix was determined with an unweighted kappa statistic to determine the percentage of correlation beyond that expected by chance.

In 145 of the 159 women HPV detection was complete. The overall HPV prevalence in this study was 22.8%; 14.1% in the general population, and 35.0% in sex workers. There was excellent agreement between HPV prevalence in vaginal samples and in cervical samples (table 1). The overall agreement was 94.5% (kappa 0.83, 95% CI 0.77 to 0.89). The HPV prevalence was slightly higher in the cervix than in the vagina (21.4% versus 18.6%, respectively). In all but one positive case at least one HPV type was present in both sites.

In conclusion, we have shown that there is a very high concordance between vaginal and cervical HPV prevalence when a polyurethane tipped swab is used by a professional. We are currently performing a field study to investigate the impact of self sampling by the women as well as that of transport and storage.

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Chaperoning in GUM clinics

In the report by the MSSVD on chaperoning in genitourinary medicine (GUM) clinics, it was suggested that patient acceptability with regard to chaperoning needed to be assessed.[1]

We have recently completed a survey on patients attending our GUM clinic looking at our practice for offering chaperones for intimate examinations.

A proforma was completed by senior full time doctors before clinical examination of patients requiring such procedures. The survey took place over consecutive clinical sessions in June 2003. The sheet documented the patient's details, member of staff examining, and whether a chaperone was offered. Reasons for either not offering a chaperone or the patient declining were recorded. The chaperone's details were also noted.

Patients were excluded from the survey if attending only for treatment or for an asymptomatic screen by a nurse, as GMC guidelines on performing intimate examinations have related to doctors but not other professionals.

Reasons given by patients for not accepting a chaperone included that they trusted the doctor, felt it unnecessary, wished privacy, felt embarrassed, or were simply not bothered.

Overall, significantly fewer male patients accepted the offer of a chaperone compared to female patients: 5% (95% CI 1 to 16) and 51% (95% CI 36 to 66) respectively. A significantly greater proportion of female patients accepted a chaperone with a male doctor (100%) compared to a female doctor (20%) (table 1), $p = 0.001$ using a χ^2 test statistics with Yates's correction.

These findings should be seen in conjunction with the findings of Miller *et al*'s postal survey on chaperoning practice,[2] where chaperones were more likely to be provided for examination of female patients by a female doctor than by a female nurse. In our survey, the majority of patients declined the offer of a chaperone, except where the patient was female and the doctor male. This may mean that an increase in costs for the provision of chaperones may not be as high as previously anticipated. However, in light of the GMC guidelines, our clinic sheets now include specific boxes to allow doctors and nurses space for recording information relating to chaperones and notices have been displayed in consulting rooms informing clients about their right to request a chaperone. But despite our findings regarding patient preferences for examination without a chaperone, the issue for clinicians who perform an intimate examination without one remains unresolved. They could be placed in a vulnerable position if any allegations of misconduct were made, and it is for this reason that we advocate proper documentation in the notes. Furthermore, we believe that clinicians performing intimate examinations need to be able to reserve the right to insist on a chaperone to be in attendance in certain circumstances.

This project included only three men having sex with men (MSM), and more information is required addressing the acceptability of offering chaperones to this group who may require proctoscopic review, in addition to a genital examination. We hope to collect more data on MSM in a future survey.

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Table 1 Results of chaperoning survey

Type of consultation	Total numbers of patients seen by doctor	Chaperone offered		Chaperone accepted
		No	Yes	Number (%)
Female patient				
Female doctor	39	9*	30	6 (20)
Male doctor	23	4†	19	19 (100)
Male patient				
Female doctor	19	2‡	17	1 (6)
Male doctor	27§	0	27	1 (4)

*6 no reason given, 1 doctor forgot, 1 language difficulties so chaperoned, 1 mother present.
†4 considered necessary as male doctor.
‡1 doctor forgot, 1 examined by male doctor instead.
§24 heterosexual, 3 men having sex with men (MSM).

PostScript

LETTERS

Circumcision practice in the Philippines: community based study

Male circumcision is a well studied phenomenon. However, much of the published knowledge on circumcision is derived from highly industrialised Western countries, particularly the United States.[1] The non-Western context of circumcision is not well known despite being a universal practice in various countries. For example, in the Philippines, circumcision was common in the past as it is at present, being an integral aspect of the social organisation of the society.[2 3] This report offers a Philippine perspective of male circumcision, particularly its adoption and complications. The study employed semi-structured face to face interviews with 114 circumcised males conveniently recruited using a snowball technique from two communities. One fourth (22) of the clients were aged 13–18, while the rest were older, working in varied and low income occupations, and were single, married, or separated.

The majority of respondents (51.7%) were circumcised between ages 10 and 14. Others had the same experience before age 10 (42.1%) or between 15 and 18 (5.3%). Respondents gave several reasons for their circumcision: not wanting to be called ''*supot*'' or uncircumcised (66.7%); being at the right age (41.2%); and wanting to grow tall and physically fit (29.8%). Other reasons included the need to get rid of smegma in the penis (22.8%); to cause pregnancy (20.2%); and to obey parents (18.4%) (table 1). Seven of every 10 clients (68.4%) were circumcised by non-medical providers; the remaining three by medical providers. Respondents paid for their circumcision in cash (51.8%) or in kind (6.1%); more than a third (36%) said that they used the services at no cost but by courtesy of the community and extension services offered by some groups and individuals from or outside their neighbourhood.

Six of every 10 respondents (59.6% or 68 of 114) reported having post-circumcision penile complications (inflammation and swelling), while four (40.4%) had none. Almost all (60 of 68) did not consult their circumcisers about their penile complications. The rest (n = 60) self medicated. The healing period was from less than 1 week to 2 months.

Circumcision among the low income respondents occurred at prepubescent ages. Ever since, the procedure has been regarded, along with corollary health reasons, as a rite of passage towards manhood.[4] Circumcision was pursued with broad community participation: parents, peers, women, and circumcisers assumed various roles in its adoption. Respondents' circumcisers included medical doctors and lay people in the community. The central role of lay individuals in undertaking circumcision is part of the traditional character of this community based practice.

Post-circumcision complications were limited to inflammation and swelling, consistent with Western data wherein risks are regarded as minor and complications were at a rate 0.2 to 0.6%.[5 6] Respondents did not take these complications nor the risks from circumcision seriously when they opted not to see their circumcisers and when they adopted self medication. The seeming lack of serious concern for these problems was inappropriate given that the healing period of the circumcised penis of many respondents was highly protracted. Much of the foregoing evidence on reasons for adopting circumcision highlights the fact that respondents' circumcision was predominantly traditional.

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Table 1 Clients' reasons why they underwent circumcision*

Responses	No	%
1 To avoid being called ''*supot*'' or uncircumcised	76	66.7
2 Already a grown up, of the right age—part of the tradition to undergo circumcision	47	41.2
3 To grow tall and physically fit	34	29.8
4 Wanted his penis to be free of smegma	26	22.8
5 To be able to cause pregnancy; wanted to have a child of his own	23	20.2
6 Parents told him to undergo the procedure	21	18.4
7 To court a girl, have a girlfriend and get married	14	12.3
8 Women like to have sexual intercourse with a man whose penis is circumcised	12	10.5
9 To facilitate entry of his penis during sexual intercourse	7	6.1
10 To enhance the form of his penis and to make his glans larger	7	6.1
11 It is in the Bible that a Christian must be circumcised	4	3.5
12 To become intelligent	3	2.6
13 Circumcision was free	2	1.8

*Multiple response (n = 114).

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Repeated detection of lymphogranuloma venereum caused by *Chlamydia trachomatis* L2 in homosexual men in Hamburg

Bacteria of the species *Chlamydia trachomatis* are divided into serovars that are associated with different disease manifestations. Serovars A-C cause trachoma, which occurs mainly in undeveloped countries. Serovars D-K are responsible for oculogenital infections, and serovars L1, L2, and L3 cause lymphogranuloma venereum (LGV). Infections of serovars A-K are usually confined to the mucosal epithelia of the eyes and the anogenital tract. In contrast, the L-serovars are more invasive and may induce genital ulcer or inguinal lymphadenopathy after passing the epithelial surface.[1]

While serovars D-K are distributed worldwide and represent the most frequent bacterial sexually transmitted disease in Europe and North America, LGV caused by the L-serovars is a very rare disease in industrialised countries, but is restricted to parts of southeast Asia, Africa, South America, and the Caribbean.[2]

During the second part of 2003 three patients presented to our clinic with inguinal swellings. In addition, genital ulcer developed in two of them. All patients had homosexual contacts with more than one partner. Two patients were HIV positive, one of them refused HIV testing. The patients assured us they had not travelled outside Germany during the past year.

In all cases genital *C trachomatis* infection was diagnosed by DNA amplification in lesional swabs or lymph node aspirates using the SDA technology (ProbeTec ET, Becton-Dickinson, MD). Other infections inducing genital lesions were not detected. None of the patients had a positive serology indicating active infection with *Treponema pallidum*. Genital infections due to *Neisseria gonorrhoeae*, *Haemophilus ducreyi*, and herpes simplex virus were excluded by polymerase chain reaction (PCR) testing. In addition, no genital bacterial and fungal pathogens were detectable by direct microscopy or culture.

After treatment with doxycycline (200 mg per day), genital lesions completely regressed in all patients. Patients 2 and 3 were treated

Figure 1 DNA sequence alignment of MOMP-PCR fragments. Nucleotide numbers are according to *C trachomatis* L2 strain 434/Bu (Genbank Acc No M14738). IP, WH, and LL are the initials of the patients who were *C trachomatis* positive. Homology to 434/Bu is 100% (IP), 98.9% (WH), and 99.5% (LL), respectively.

for 3 weeks, while patient 1 received doxycycline for 1 week only.

The underlying *C trachomatis* serovars were identified by sequence analysis of ompA derived DNA fragments amplified using primers MF21 and MB22 as described by Dean *et al*.[3] In all cases the sequences obtained had highest homology to *C trachomatis* serovar L2 but were not identical. While the sequence from patient 1 was shown to be 100% identical to the L2 isolate 434/Bu[4] over the analysed region of 366 nucleotides, the sequences of patients 2 and 3 were only 89.9% and 99.5% homologous, indicating different sources of infection (fig 1).

Recently, a cluster of 15 LGV cases among homosexual men was reported in Rotterdam.[5] Thirteen of these patients were HIV positive. As with our patients, *C trachomatis* serovar L2 was identified in all patients. Although anonymous sexual contacts in Germany were reported, there is yet no epidemiological evidence for a connection of the LGV cases of our study and those reported in Rotterdam.

In conclusion, infections with *C trachomatis* serovar L may be more frequent than assumed previously, as indicated by the identification of three different strains in our study. Consequently, LGV should be included in the differential diagnosis of genital ulcer or lymphadenopathy in homosexual HIV infected patients in Europe.

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Determinants of hospital mortality of HIV infected patients from north India

A majority of the HIV infected population lives in developing nations. Most patients require hospitalisation for management of opportunistic infections (OIs) sometime during the course of their illness. Locally endemic infections and underlying malnutrition tend to influence the manifestations and course of the disease.[1] However, there is paucity of data on pattern of disease and determinants of immediate outcome of such patients from Indian subcontinent.[2]

We report the determinants of hospital mortality in a cohort of 135 consecutive cases of HIV/AIDS, aged 13 years and above, admitted to the All India Institute of Medical Sciences (AIIMS), New Delhi, during the period of January 2000 through July 2003. These patients had been hospitalised for suspected OIs, and all patients underwent examination for diagnosis with subsequent management as per standard guidelines. For patients with *Pneumocystis jiroveci* pneumonia (PCP) whenever hypoxaemia was severe (PaO_2<70 mm Hg; n = 5), corticosteroids were given in addition to oral co-trimoxazole. None of these patients received assisted ventilation. Secondary prophylaxis for the OIs was initiated as recommended.[3]

Mean age of the patients was 34 (SD 10) years and 23 patients (17%) were women. CD4+ cell counts were done in 109 patients. Most of these patients (82.6%) had CD4+ counts less than 200 cells $\times 10^6$/l. Fifty patients (46%) had CD4+ counts less than 50 cells $\times 10^6$/l. The mean number of OI was 1.4 per patient. The commonest OI was tuberculosis (TB) (71.1%), followed by oral candidiasis (39.3%). Other OIs (full data presented elsewhere) included PCP (n = 10), cryptococcal meningitis (n = 8), cerebral toxoplasmosis (n = 5), cytomegalovirus retinitis (n = 3), visceral leishmaniasis (n = 2), and progressive multifocal leucoencephalopathy (n = 1).

Twenty one patients (15.6%) died in hospital, most of them as a result of TB (n = 16; 76.2%) and PCP (n = 4; 19%). Factors associated with hospital mortality, on bivariate analysis, are shown in table 1. After adjusting for other factors (by multivariate logistic regression analysis), PCP was the only independent determinant and was associated with a more than fourfold increased risk of hospital mortality (adjusted odds ratio (95% CI): 4.7 (1.1 to 20.9); p = 0.041).

Overall hospital mortality of 15.6% in this cohort is considerable and reflects the advanced nature of the disease at presentation. As our institute is a tertiary care facility

Table 1 Predictors of in-hospital mortality in 135 HIV infected patients

Variable	Survived (n = 114)	Died (n = 21)	p Value
MMSE score*	30 (23–30)	5 (0–30)	0.001
Blood urea (mg/dl)†	29 (16)	41 (35)	0.051
CD4+ count ($\times 10^6$/l)*	62 (9–152)	38 (7–111)	0.029
Pericardial effusion‡	0.8%	9.5%	0.051
ATT‡	63%	80%	0.033
PCP‡	5.3%	19%	0.004

MMSE, Mini Mental Status Examination; ATT, antituberculosis treatment; PCP, *Pneumocystis jiroveci* pneumonia.
*Data are presented as median (interquartile range); p values determined by Mann-Whitney U test.
†Data are presented as mean (SD); p value determined by independent *t* test.
‡Data are expressed as proportion; p values determined by χ^2 test.

and a national referral centre, this is expected. None the less, it may be possible that some OIs remained undiagnosed and indirectly influenced the outcome. This does occur as was shown in a necropsy study where it was found that a large number of potentially fatal OIs were not diagnosed antemortem.[4]

Unexpectedly, CD4+ counts had no independent effect on mortality. A similar observation has been reported in some previous studies.[5 6] It appears that the virulence of the pathogen causing the OI, rather than the stage of the underlying disease, tends to influence the short term outcome. This finding has important therapeutic implications, especially because almost all these patients die of an OI.

It is suggested that any HIV infected patients with an OI, irrespective of the stage of the disease, should be managed with an aggressive approach. Once they recover from the OI, they can be offered antiretroviral therapy, which, over the years, has become extremely potent and effective. Such an approach is likely to improve the long term outcome of these patients.

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STI services in the United Kingdom, how shall we cope?

The recent proposals/debate addressing the increasing genitourinary medicine (GUM) workload[1] are imaginative. I wish to contribute the following observations.

(1) The listed ''guiding principles'' for the GUM services role are missing the most important function that is expected by patients: to exclude sexually transmitted infections. Casual sex, contact tracing, and sexual assault are examples of conditions that require full assessment.

(2) The revelation that some 9% of the sexually active population are harbouring asymptomatic chlamydial[2] infection presents GUM physicians with a professional responsibility. Chlamydia screening will require extensive resources from primary care.[3]

(3) The debate ignores the issue of funding. To assume that GPs are going to provide ''additional services'' for a lower cost than GUM clinics, with their existing infrastructure, contradicts the basis of health care economics.[4]

(4) The relation between quantity and quality of health care is inverse; with both healthcare workers and clients appreciative of this relation. The pressures for quantity will eventually force the quality of care downhill.[5]

(5) Clinical governance implicates clinicians (as providers and stakeholders) in the quality of their provisions of services. It would be professionally unwise to compromise on quality as a result of the static, or a relative decrease in, funding. It is professionally unacceptable and could prove medicolegally indefensible.[6]

(6) The open access of the GUM clinics will always attract patients, and the free prescriptions will continue to influence demand (particularly with recurrent infections).

(7) There is a potential of primary care's initial enthusiasm to fade away, with patients re-diverted to GUM clinics, while resources are tracking in the other direction.

(8) The provisions of service should be based primarily on clinical needs, with a clearer understanding of the difference between screening and testing. The task of providing screening (for example, for chlamydia) in primary care (leading to the cascade of recall of positive cases, the treatment of patients' conditions, and the referral for contact tracing) should be implemented fully in primary care, before any other directives.

(9) Primary care units, providing full testing for STIs, should follow the same clinical governance and quality assurance standards expected and provided in GUM clinics. The issues of access, confidentiality, free prescriptions and reporting conditions (coding: KC60) have not been addressed yet in primary care settings.

I propose the following alternative models of service.

(1) ''Three tiered'' GUM services are provided, within existing GUM departments, where care is streamlined with defined ''clinical care pathways:''

(a) The first tier/setting of service could be provided by nurses and/or junior doctors (under the supervision and support of senior GUM physicians). It will triage patients and deal with primary care conditions.

(b) The secondary tier/setting would deal with clinical conditions of intermediate complexity (that prove to be outside the expertise of the first setting). It will be provided by medical staff, of intermediate seniority, supported by senior/specialised nurses.

(c) The tertiary tier/setting is already existing within most GUM services (for example, HIV, sexual dysfunction, genital dermatosis, forensic genitourinary medicine). It will be provided by specialised medical staff, assisted by specialised nurses, where junior grades attend for training.

(2) A ''three sessions'' day could be provided, to maximise the use of accommodation and infrastructure resources. Evening and/or weekend clinics to be considered—with appropriate funding.

(3) The provision of satellite GUM clinics where local services are unable to cope with demands. They could be provided (and supported) by existing larger primary care, GPs and/or family planning units, under the auspices of the main GUM clinic. This will maintain and ensure quality, KC60 reporting, confidentiality, and/or free prescribing.

These modules are already taking shape in some GUM departments.

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Refrigeration does not compromise recovery of *Neisseria gonorrhoeae* from charcoal transport swabs

Despite emergent molecular diagnostics, culture recovery of *Neisseria gonorrhoeae* (NG) remains important for the diagnosis of gonorrhoea, as well as for susceptibility and epidemiological study. Although inoculation of bacteriological media in clinic is optimal, it can prove impractical, or impossible, in some healthcare settings. Further, any healthcare strategy that distances patient testing from diagnostic laboratories reinforces the need for transport media.

Many users assume that commercial transport systems offer comparable performance characteristics, so cost alone may influence choice. However, a proposed NCCLS standard for transport media (M40)[1] is likely to confirm significant variations in performance, both between and within different manufacturers' products. Similarly, little attention has been given to the storage temperature for swabs after use; textbooks offer conflicting recommendations. Overgrowth and killing of NG in transport media by contaminating bacteria may be inhibited by refrigeration, but it is unclear whether refrigeration is detrimental to recovery of NG.

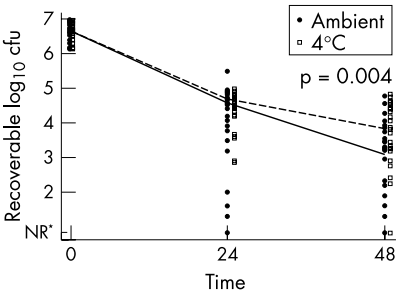

Figure 1 Recovery of 30 distinguishable strains of *Neisseria gonorrhoeae* from charcoal transport medium stored at ambient temperature or 4°C. *NR, none recovered (⩽0.82).

To address this we compared the survival of 30 distinguishable clinical strains of NG in charcoal transport swabs held at ambient temperature (AT: 20–22°C) and at 4°C.

Swabs (Transwab; Medical Wire & Equipment Co) were inoculated with a suspension of NG in phosphate buffered saline (PBS). For each strain, four swabs were inoculated, to allow comparison of storage at AT or 4°C, for 24 or 48 hours. At times 24 hours and 48 hours, NG organisms were recovered from swabs by vortexing the tips in 1 ml PBS. Triplicate counts were performed on the 0 hour inocula and the washings on chocolate agar (Oxoid, Basingstoke, UK) using a spiral plater (Don Whitley, Shipley, UK). The median value for each triplicate was taken, and counts compared using the Wilcoxon rank sum test.

At 24 hours there was no significant difference between AT and 4°C counts, with median (interquartile range, IQR) recoverable $\log_{10}$cfu of 4.57 (3.78–4.84) and 4.72 (4.32–4.87), respectively (fig 1). At 24 hours one strain held at AT was not recovered (see fig 1). At 48 hours, six strains held at AT and three at 4°C were not recovered; median counts (IQR) were 3.09 (1.3–3.55) and 3.855 (3.19–4.53) for AT and 4°C, respectively ($p = 0.004$).

Sng *et al* in a semiquantitative study tested five strains in Amies medium at four temperatures (4, 18, 26, and 32°C) and found better survival at lower temperatures.[2] Arbique *et al* studied six isolates and found refrigeration improved recovery, though optimum temperature varied with system.[3] Perry *et al*[4] using 11 isolates considered that 4°C prolonged survival. Studies using laboratory control strains of NG have usually shown better recovery at 4°C.[5 6]

It is impossible to reproduce in vitro the NG inoculum and other conditions in clinical swabs. To demonstrate a difference in survival at two temperatures we used a standardised inoculum higher than that likely to be present in clinical samples. Nevertheless, our results add to a growing body of evidence that, compared to AT, refrigeration does not compromise the recovery of NG. Storage at 4°C offers the potential benefit of reducing overgrowth and elimination of NG by contaminating normal flora.

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Table 1 Chlamydia prevalence by age in men attending GUM clinic and undergoing community based testing

Age groups	Postal testing	GUM 2002	GUM 2003
<15	6.7% (1/15)	16.7% (1/6)	0.0% (0/7)
15–19	13.7% (57/416)	14.2% (50/351)	19.4% (74/382)
20–24	12.6% (42/334)	17.4% (208/1194)	16.7% (217/1299)
25–29	12.0% (14/117)	13.0% (128/981)	11.3% (108/953)
>29	1.4% (1/70)	6.7% (116/1725)	6.3% (101/1598)
Total	12.0% (115/952)	11.8% (504/4258)	11.8% (500/4239)

Chlamydia in heterosexual men: could peak prevalence be in teenagers?

The CMO's expert advisory group on *Chlamydia trachomatis*[1] and the Health Protection Agency (HPA)[2] both state that rates of chlamydial infection are highest among 16–19 year old females and 20–24 year old males. Staff based in the genitourinary medicine (GUM) department in Edinburgh have set up a number of community based initiatives, including a postal testing service, to improve access to chlamydia diagnosis for young people aged less than 25. Many of these initiatives have been targeted specifically at young men, with testing having been made available in a variety of novel settings such as young people's sexual health and drop-in clinics, further education (FE) colleges, community pharmacies, sports centres, and a high street shop selling CDs. The work forms part of a demonstration project called Healthy Respect that is funded by the Scottish Executive with the aim of helping young people in Lothian develop a positive attitude to their own sexuality and that of others. The long term goal of the project is to reduce teenage pregnancies and sexually transmitted infections.

Between February 2002 and December 2003, as part of the Healthy Respect project, we carried out 4838 chlamydia tests including 2321 from postal testing kits. The overall prevalence of chlamydial infection was 9.5% (10.4% in men, 9.0% in women). Somewhat to our surprise, the 15–19 year old age group showed peak prevalence in men as well as in women.

We compared this with the prevalence by age in men attending Edinburgh GUM (see table 1), anticipating this would be highest in the 20–24 year old age group. Although this was the case for 2002, in 2003 the peak prevalence was in 15–19 year olds, with the proportion of all positive tests in men as a result of the under 20s increasing significantly from 10.1% (51/504) in 2002 to 14.8% (74/500) in 2003 (χ^2 5.05; $p = 0.025$).

There is no doubt that in men, the age group 20–24 accounts for the highest number of cases diagnosed, but our data raise the possibility that either there has been underdiagnosis of cases in younger men or that there is a trend towards younger transmission. Although we only report on 2 years' data, it will be essential to monitor ensuing trends by concentrating efforts to include teenage men in chlamydia testing programmes.

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CORRECTIONS

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In two letters published in the June 2004 issue of STI the author list was printed in the incorrect order (F Burns, C H Mercer, D Mercey, S T Sadiq, B Curran, P Kell. Barriers to HIV testing: a survey of GUM clinic attendees. *Sex Transm Infect* 2004;**80**:247–248. F Burns, C H Mercer, D Mercey, S T Sadiq, B Curran, P Kell. Factors that may increase HIV testing uptake in those who decline to test. *Sex Transm Infect* 2004;**80**:249). S T Sadiq should be the last author for both letters.