GUM clinic as experienced in our department, especially as FP practitioners have been promoting the need for collaboration between the two specialities to provide a comprehensive sexual health service for women.[3]

At the request of the GUM consultant, nearly a decade ago, Wandsworth Family Planning Services established a FP clinic in the GUM department. This arrangement has not required any additional funding from GUM, simply the provision of, initially one, now two female consultation and examination rooms one morning a week and the cooperation of the clerical staff and nurses. The FP doctors and nurse, employed by Wandsworth Health Authority, have had training in GUM and can therefore provide screening for sexually transmitted diseases (STDs) using the GUM laboratory facilities. Wandsworth Family Planning Services also fund the contraceptives provided.

This setup has been mutually beneficial and a recent evaluation is awaiting publication. In general, referrals from GUM include: clients requiring contraception and opting for an on-site service, in particular HIV seropositive women; post coital contraception follow ups; fittings for an intrauterine contraceptive device (IUCD) if indicated for emergency contraception and follow up of women treated for a pelvic infection who have an IUCD. Conversely, the community based FP services use this clinic as a tertiary referral centre, particularly for patients who require an STD screen, such as women on the combined oral contraceptive pill who complain of breakthrough bleeding that may be due to infection or hormonal problems, patients with inflammatory cervical smears and/or smears identifying a genital infection, women who request or clinically require an STD screen before insertion of an IUCD and those with IUCD related problems, such as bleeding, pelvic pain and *Actinomyces israelii* infection.

This designated clinic has other advantages. It maintains the confidentiality sought by GUM patients, especially for HIV seropositive women for whom confidentiality is such an important issue; it attracts patients from the local FP services who require an STD screen and are too embarrassed to attend a routine GUM clinic and the FP team can avail of the resources of the health advisors for tracing contacts of patients identified with a sexual infection or counselling of patients requesting an HIV test. Furthermore, this clinic is ideal for teaching purposes. It provides on-site training of GUM doctors and nurses in family planning and training for FP doctors for the IUCD letter of competence. FP doctors and nurses in the community are also encouraged to sit in on routine GUM clinics. This increases awareness among staff of the importance of collaboration between the two specialities.

One measure of the clinic's success has been the need to expand the service as, initially only one FP doctor, now two, and still the appointments are fully booked six weeks in advance. Together with Wandsworth Community Health Trust there are plans to extend the service to three sessions a week, to include the one tertiary referral FP clinic and two other standard FP clinics, when the GUM department is relocated to a new purpose-built building at the end of this year and can therefore provide more clinic space.

In conclusion, the integration of FP services within GUM with staff trained in both specialities is an alternative, cost-effective, mutually beneficial, means of providing coordinated sexual health clinic for women combining contraceptive provision with STD/HIV/cervical cytology screening.

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1 Masters L, Nicholas H, Bunting P, Welch J. Family planning in genitourinary medicine: an opportunistic service? *Genitourin Med* 1995;71:103–5.
2 Carlin EM, Russell JM, Sibley K, Boag FC. Evaluating a designated family planning clinic within a genitourinary medicine clinic. *Genitourin Med* 1995;71:106–8.
3 Stedman Y, Elstein M. Rethinking sexual health clinics. *BMJ* 1995;310:342–3.

Rectal gonorrhoea as an independent risk factor for HIV infection in homosexual males

We read with interest the recent study by Craib and colleagues[1] which demonstrated an association between HIV seroconversion and rectal gonorrhoea in homosexual men. Because of the shared risks of sexual behaviour for both conditions[2] and methodological problems it has not been possible to show that the relationship between sexually transmitted diseases (STDs) and HIV transmission is causal although this is believed to be the case.[3] We studied the association between non-ulcerative STDs and HIV seroconversion retrospectively in homosexual men attending the Department of Genitourinary Medicine in Bristol and our findings are in agreement with Craib and colleagues and add further support to the belief that STDs facilitate the transmission of HIV. This has important implications for health intervention programmes in homosexual men.

All homosexual HIV antibody positive men, up to February 1994, who had had a previous negative test were identified; these were matched with controls who had had a negative test, for age and date of the case's positive test. Twenty cases and 40 controls were identified.

No information was available on frequency of anal intercourse or number of partners per year. To attempt to reduce the confounding factor of high risk sexual behaviour for both STDs and HIV we categorised sexual behaviour into higher and lower risk groups according to whether the relationship was open or closed respectively. Men who had more than one sexual partner at any given time were recorded as being in an open type relationship, and men who were documented to have a (serial) monogamous relationship(s) were considered to be in a closed type relationship.

The following was recorded from the notes: age; dates of the positive and last negative test for the cases and date of test for the controls; type and number of STDs. Condom usage which was recorded as always, sometimes or never.

The median age of cases was 26 years (range 17–37); this was not statistically different from the controls. The median test interval was 20 months (range 1–61), in the controls the mean difference from the matching test date was 5·45 months (SD 6·23).

There was shown to be no difference in incidence of hepatitis B or syphilis between the two groups. Two (10%) of 20 cases and three (7·5%) of 40 controls had had hepatitis B. One (5%) of 20 cases and no controls had had syphilis. None of the index patients acquired these infections during the study period.

To assess the role of STDs in facilitating HIV infection we considered only those which are present on the genital epithelium/mucosa that is, gonorrhoea, genital warts, genital herpes and non-specific urethritis. STDs were recorded during the study period for the index patients and for an equivalent time period for the controls. We considered all patients with no documented history of an STD infection as being "negative" and found that presence of STDs showed a significant relationship with risk of seroconversion ($p < 0·01$). Information on STDs was not available in eight of the index patients since their negative HIV test. Six (30%) of 20 cases and two (5%) of 40 controls had had at least one STD. Open relationship type also carried a significant increased risk of seroconversion ($p < 0·02$). Sixteen (80%) of 20 cases and 18 (45%) of 40 controls were in the high risk group.

In order to control for the confounding factor that males in open relationships are theoretically more likely to become infected with STDs and HIV we carried out a Mantel-Haensel multivariate analysis. STDs were independently associated (odds ratio = 5·91 CI 1·43–24·5) with HIV seroconversion as was open type relationship (odds ratio = 8·41 CI 1·32–53·4).

Use of condoms was not statistically significant between cases and controls. Information was not available in two index patients and four controls. Of the index patients two (11%) always used condoms, three (17%) sometimes and 13 (72%) never used them compared with three (8·3%), six (17%) and 27 (75%) respectively of the controls.

Whilst this is a retrospective study and the low use of condoms might not reflect current sexual behaviour there is evidence that risk behaviour among young homosexual men is still high despite on-going HIV prevention programmes.[4] New approaches are therefore urgently needed. Much interest is currently focused on the prevention, treatment and control of STDs as a means of reducing HIV transmission in heterosexual populations from the developing world. Our findings support the conclusion of Craib and colleagues that health intervention programmes are needed which are designed to control gonorrhoea. In addition they suggest that these programmes should also be directed at other STDs. This study provides support for the continued development and expansion of such programmes in all sexually active individuals.

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1 Craib KJP, Meddings DR, Strathdee SA, *et al.* Rectal gonorrhoea as an independent risk factor for HIV in a cohort of homosexual men. *Genitourin Med* 1995;71:150–4.
2 Mertens TE, Hayes RJ, Smith PG. Epidemiological methods to study the interaction between HIV infection and other sexually transmitted diseases. *AIDS* 1990; 4:57–65.
3 Laga M, Mamadou TE, Bure A. Interrelationship of sexually transmitted diseases and HIV: where are we now? *AIDS* 1994;8(suppl 1):s119–24.
4 van Griensven GJP, Koplin BA, Osmond D. Risk behaviour and HIV infection among younger homosexual men. *AIDS* 1994; 8(suppl 1):s125–30.

A case cluster of possible tissue invasive gonorrhoea

I read with great interest the report by Brook *et al* of a cluster of five cases of invasive gonococcal infection.[1] The authors apparently are unaware of a similar report published over twenty years ago.[2] We described a cluster in which a male patient with gonorrhoea infected seven of eight female contacts. Two other female partners could not be located. Among the seven infected women, two had disseminated gonococcal infection, four had pelvic inflammatory disease, and one had a Bartholin gland abscess. Three weeks after successful treatment of his urethritis, the male index case returned with disseminated gonococcal infection, having resumed intercourse with some of the same partners prior to their diagnosis and treatment.

In 1973 we lacked the ability to definitively prove that all of our patients were infected with the same strain of *Neisseria gonorrhoeae*. However, the epidemiologic circumstances made it clear that most or all of the patients in fact shared a common strain. We also cited several other reports from 1940 to 1972 that documented complications of gonococcal disease in couples or in mother-infant pairs.[3–7] Collectively, these reports provided the first hint of variations in pathogenicity among gonococci.

There is nothing new under the sun (to coin a phrase)!

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1 Brook MG, Clark S, Stirland A, *et al.* A case cluster of possible tissue invasive gonorrhoea. *Genitourin Med* 1995;71:126–8.
2 Handsfield HH, Holmes, KK. Microepidemic of virulent gonococcal infection. *J Am Vener Dis Assoc* 1974;1:20–2.
3 Abu-Nassar H, Hill N, Fred HL, *et al.* Cutaneous manifestations of gonococcemia. *Arch Intern Med* 1963;112:731–7.
4 Bjornberg A. Benign gonococcal sepsis: a report of 36 cases. *Acta Dermatovenereol* 1970;50:313–6.
5 Ackerman AB, Miller RC, Shapiro L. Gonococcemia and its cutaneous manifestations. *Arch Dermatol* 1965;91:227–32.
6 Parrish PP, Console WA, Battaglia J. Gonococcic arthritis of the newborn treated with sulfanilamide. *JAMA* 1940;114:241–2.
7 Gregory JE, Chisom JL, Meadows AT. Gonococcal arthritis in an infant. *Br J Vener Dis* 1974;1:306–7.

Pseudomonas aeruginosa infections and HIV

Ali, *et al*[1] provide an interesting overview of their experience over a five year period with pseudomonas infections in HIV seropositive patients. Their report of an increase in the frequency of both pneumonic and septicaemic illness due to this organism concurs with other recent studies. Two points arise however, which merit further discussion. A report from this centre is incorrectly referenced[2] as illustrating that pneumonias due to Staphylococcus aureus and nosocomially acquired gram-negative organisms occur with increased frequency in patients with indwelling central venous catheters (CVCs). In fact, what the quoted study demonstrated was an increased frequency of pseudomonas as an isolate in the blood cultures of HIV seropositive patients with septicaemia (found in 19 of 52), especially those with indwelling CVCs; in only two of these patients was there evidence of a pseudomonas pneumonia. In the same study an apparent association with concurrent CMV infection was cautiously suggested, but the results of Ali *et al* do not support this.

More importantly however, their conclusion that the use of systemic pneumo-cystis prophylaxis is an independent risk factor for the development of *Pseudomonas aeruginosa* pneumonia is erroneous and is not supported by the data provided. As the authors note, the affected patient group were all in the advanced stages of HIV disease with low CD4 counts. Not surprisingly therefore, the vast majority were also on *Pneumocystis carinii* (PCP) prophylaxis. However, without showing an increased risk for this group over a similarly severely immunosuppressed matched group *not* taking PCP prophylaxis (which for obvious reasons would be difficult to gather), this conclusion cannot be drawn. The low CD4 count, on the other hand, may be the relevant variable.

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1 Ali NJ, Kessel D, Miller RF. Bronchopulmonary infection with *Pseudomonas aeruginosa* in patients infected with human immunodeficiency virus. *Genitourin Med* 1995;71:73–7.
2 Nelson MR, Shanson DC, Barter GJ, Hawkins DA, Gazzard BG. Pseudomonas septicaemia associated with HIV. *AIDS* 1991;5:761–3.

Pneumococcal vaccine and HIV infection

Hellberg and colleagues[1] state "An association between cervical dyskaryosis, as well as the role of HPV in cervical cancer in situ and in invasive cancer, has been demonstrated." They quote Franceschi and colleagues[2] in support of this claim.

Sheppard and colleagues[3] report the psychological distress of patients diagnosed with genital warts, for whom "... there is the fear of the link between genital warts and cervical cancer".

The paper which is frequently quoted as establishing a link between genital warts and cervical cancer by Franceschi and colleagues[2] did no such thing. These authors studied women attending a genitourinary medicine clinic, who had smears taken. Among the women attending with genital warts there was a significant excess of smears showing "superficial dyskaryosis". None of these women had evidence of high grade CIN and certainly none of them had cervical cancer. All of the more severe cytological abnormalities occurred in women with trichomonas and gonorrhoea.

Having performed this very preliminary study, two of the authors returned to Italy where they conducted a more rigorous study[4], which demonstrated no evidence of an association between genital warts and subsequent carcinoma in situ or invasive cervical cancer. Ever since discovering the second negative paper it has always amazed me how widely quoted is the first paper by these authors, whilst the second is almost universally ignored. Is it because the first paper was in a British journal and the second one in an American journal? Did the first paper have a "snappier title" Or was it because the first paper confirmed people's prejudices and the second didn't? The original idea of an association was further refuted by our own work.[5]

Could it be that the myth of genital warts needs the same treatment as the other myth about cervical cancer—that "it has been known for 150 years not to occur in virgins"—finally debunked in 1991?[6]

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1 Hellberg D, Borendal N, Sikstrom B, Nilsson S, Mardh P-A. Comparison of women with cervical human papillomavirus infection and genital warts. I. Some behavioural factors and clinical findings. *Genitourin Med* 1995; 71:88–91.
2 Franceschi S, Doll R, Galleway J, *et al.* Genital warts and cervical neoplasia: An epidemiological study. *Br J Cancer* 1983;48: 621–8.
3 Sheppard S, White M, Walzman M. Genital warts: Just a nuisance? *Genitourin Med* 1995; 71:194–5.
4 la Vecchia C, Franceschi S, Decarli A. *et al.* Sexual factors, venereal disease and risk of intraepithelial and invasive cervical neoplasia. *Cancer* 1986;58:935–41.
5 Griffiths M, Sanderson D, Penna LK. Cervical epithelial abnormalities among women with warts—no more common than among controls. *Int J Gynecol Cancer* 1992;2: 49–51.
6 Griffiths M. "Nuns, spinsters and virgins"—Rigoni-Stern and cervical cancer revisited. *Br J Obstet Gynaecol* 1991;98:797–802.

Carcinoma of the penis: A cluster of cases in young men

The authors of the recent article *Carcinoma of the penis in a HIV positive patient*[1] emphasise that this malignancy is rare in the immuno-competent population, especially in young men. Indeed, in 1989 (the most recent year for which figures are available)[2] there were only 45 notified cases in men under the age of 50 years in England and Wales.

It may therefore be of interest to report that recently, in the space of seven months, no fewer than four apparently immunocompetent men presented to this department with ulcerating lesions, clinically suspicious of malignancy. The men's ages ranged from 34 to 48 years. Although none had a HIV test, they were all heterosexual with no high risk factors for HIV infection. Two of the four had clinical appearances suggestive of lichen sclerosus, a third had a history of genital warts and all were uncircumcised.