patients. In inner London most women with warts refer themselves to the genitourinary clinic. Attendance is easy as little travelling is necessary; a high rate of attendance is therefore likely. It might be that in the Cambridge clinic with a larger catchment area women would be less likely to attend a department of genitourinary medicine unless other factors (such as recent change of partner) made them more concerned that they might harbour other diseases. Local policies for referral, screening, and treatment of patients with genital warts need to be tailored to local conditions; such policies need to be based on audit such as that carried out by Dr Carne and Mr Dockerty and ourselves.

In their introduction Dr Carne and Mr Dockerty mention "the link between the aetiological agent of warts, human papillomavirus, and the development of cervical cancer." The causative agent in genital warts is human papillomavirus type 6 or 11.⁶ Types 16 and 18 have been implicated in the aetiology of cervical cancer⁷ but types 6 and 11 have not. There is therefore no reason to anticipate an association between genital warts and cervical cancer. Despite this it seems to be a widespread policy to advise women with genital warts that they have an increased risk of this malignancy and to carry out more frequent cytological screening in them.

No study has shown any increased risk of cervical cancer in women with vulval warts. On the contrary, there have been three reports of case-control studies⁸⁻¹⁰ that have shown that warts do not represent a risk factor for cervical cancer.

It is time to stop telling women with warts that they have an increased risk of cervical cancer and to stop the wasteful overscreening of these women.

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- 1 Carne CA, Dockerty G. Genital warts: need to screen for coinfection. *Br Med J* 1990;300:459. (17 February.)
- 2 Griffiths M, Overington LJ, Chard SC. Genital warts and the need for screening. *Genitourin Med* 1989;65:399.
- 3 Kinghorn GR. Genital warts: incidence of associated genital infections. *Br J Dermatol* 1978;99:405-9.
- 4 Longhurst LJ, Flower N, Thomas BJ, et al. A simple method for detection of Chlamydia trachomatis infection in general practice. *J R Coll Gen Pract* 1987;37:1255-6.
- 5 Fish ANJ, Fairweather DVI, Oriel JD, Ridgway GL. Chlamydia trachomatis infection in a gynaecology clinic population. *Eur J Obstet Gynecol Reprod Biol* 1989;31:67-74.
- 6 Gissmann L, Villiers E-M, zur Hausen H. Analysis of human genital warts and other genital tumours for HPV type 6 DNA. *Int J Cancer* 1982;29:143-6.
- 7 Muñoz N, Bosch X, Kaldor JM. Does HPV cause cervical cancer? The state of the epidemiological evidence. *Br J Cancer* 1988;57:1-5.
- 8 La Vecchia C. The epidemiology of cervical neoplasia. *Biomed Pharmacother* 1985;39:426-33.
- 9 La Vecchia C, Franceschi S, Decarli A, et al. Sexual factors, venereal diseases and the risk of intraepithelial and invasive cervical neoplasia. *Cancer* 1986;58:935-41.
- 10 Slattery ML, Overall JC, Abbott TM, et al. Sexual activity, contraception, genital infection and cervical cancer: support for an STD hypothesis. *Am J Epidemiol* 1989;130:248-58.

SIR,—We agree with the principle of screening patients with genital warts attending genitourinary clinics for other sexually transmissible infections¹ but would also screen those with anal and perianal warts, conditions that may constitute the only clinical manifestation of human papillomavirus infection.² Further, it was not clear whether the patients screened for sexually transmitted disease presented with symptoms associated with their warts (a relatively rare event³) or whether they presented for other reasons and were found on clinical examination to have warts, in which case the proportion of those with conditions in addition to their warts would be increased. Even less clear is the position regarding contact tracing. We have no doubt that attempts should be made to trace the contacts of patients who have, in addition to their warts, a treatable sexually transmitted disease. The rationale of tracing the contacts of those who have

only clinically apparent human papillomavirus infection is, however, dubious. The purpose of contact tracing is to identify those who have acquired the infection from the index case and to treat them. Making the association may be difficult because the use of modern technologies has highlighted the widespread carriage of human papillomavirus in clinically normal subjects,⁴ in women with cervical cytological abnormalities,⁵ in unexpected sites,⁶ and in those who would not normally be regarded as at particular risk of having sexually transmitted diseases, such as neonates.⁷

The problem is not just one of dealing with overt warts but of determining the existence of non-apparent human papillomavirus infection and then of what to offer the contact. There is currently no established treatment for asymptomatic human papillomavirus infection and no evidence that conventional methods of treatment can reliably eradicate it even in patients with visible warts. The frequent recurrence of clinical disease regardless of the mode of treatment¹ illustrates the difficulty of managing this condition. It is not inconceivable that, like some other viral conditions, human papillomavirus infections may be lifelong and that treatment may be purely cosmetic. Whether or not to advise the use of condoms and if so, for how long, is unanswered. Only when the natural course of human papillomavirus infection and its interrelation with clinically apparent and non-apparent lesions have been clearly defined by adequate longitudinal and epidemiological studies can we develop rational treatment and offer soundly based advice on this poorly understood condition.

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- 1 Carne CA, Dockerty G. Genital warts: need to screen for coinfection. *Br Med J* 1990;300:459. (17 February.)
- 2 Oriel JD. Anal warts and anal coitus. *Br J Vener Dis* 1971;47:373-6.
- 3 Tyring SK, Cauda R, Baron S, Whitely RJ. Condyloma acuminatum: epidemiological, clinical and therapeutic aspects. *Eur J Epidemiol* 1987;3:209-15.
- 4 Young LS, Bevan IS, Johnson MA, et al. The polymerase chain reaction: a new epidemiological tool for investigating cervical human papillomavirus infection. *Br Med J* 1989;298:14-8.
- 5 Campion MJ, McCane DJ, Cuzick J, Singer A. Progressive potential of mild cervical atypia: prospective cytological and virological study. *Lancet* 1986;ii:237-40.
- 6 McDonnell JM, Mayr AJ, Martin WJ. DNA of human papillomavirus type 16 in dysplastic and malignant lesions of the conjunctiva and cornea. *N Engl J Med* 1989;320:1442-5.
- 7 Roman A, Fife K. Human papillomavirus DNA associated with foreskins of normal newborns. *J Infect Dis* 1986;153:855-61.

Implications of inflammatory changes on cervical cytology

SIR,—We were surprised to note that Dr J D Wilson and colleagues detected *Chlamydia trachomatis* in the cervical specimens of 18% of their patients with inflammatory changes on cervical cytology.¹ (The women had been referred by general practitioners and community family planning clinics.)

We studied retrospectively a similar series of women with inflammatory changes on cervical cytology. They had been referred by family planning clinics in Wandsworth Health Authority to the department of genitourinary medicine at St George's Hospital between 1 May 1987 and 30 April 1988. We detected *C trachomatis*, which was identified by using direct immunofluorescent monoclonal antibody (Microtrak, Syva, California, United States), in the cervical specimens of only three out of 98 women, which is a similar figure to that found by others.² The detection rate of *C trachomatis* in the cervical specimens of women attending the department because they were a sexual contact of a man with non-specific urethritis

during the same period was 25%. Only one patient had *Trichomonas vaginalis* infection and one had genital warts, which is in agreement with the findings of Dr Wilson and colleagues.

We think that a larger study would be necessary to ascertain the prevalence of chlamydial infection in women with cervical smears that show inflammatory changes before recommendations as to the management of such women can be made.

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- 1 Wilson JD, Robinson AJ, Kinghorn SA, Hicks DA. Implications of inflammatory changes on cervical cytology. *Br Med J* 1990;300:638-40. (10 March.)
- 2 Toon PG, Arrand JR, Wilson LP, Sharp DS. Human papillomavirus infection of the uterine cervix of women without cytological signs of neoplasia. *Br Med J* 1986;293:1261-4.

Alcoholic doctors can recover

SIR,—Dr Gareth Lloyd and his colleagues in the North West Doctors and Dentists Group are to be congratulated on their courage and wisdom in attempting to evaluate the outcome of their experiences as doctors with a severe alcohol problem and in publishing their findings.¹

In the past we have been faced with uncertainty as to how these groups work and as to their effectiveness. This difficulty has arisen because of the importance the profession attaches to confidentiality. Until this curtain of secrecy is lifted and the profession learns that there is hope for these doctors and their families then treatment, support, and rehabilitation will always be too little and too late.

Dr Lloyd's study has confirmed that alcoholic doctors can recover. This, too, has been the General Medical Council's experience: over one third of severely disabled doctors referred to its health machinery return to professional practice. To achieve an even better result the disease has to be identified earlier and treated before it has destroyed the doctor and his or her family and reputation. This requires a determination by the profession to provide a more effective local machinery than is currently available. The responsibility lies with the profession, not the General Medical Council. The motivation would be humanity, necessity, and conviction.

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- 1 Lloyd G. Alcoholic doctors can recover. *Br Med J* 1990;300:728-30. (17 March.)

Intratesticular radionuclide and spermatogenic damage

SIR,—The recent statistical analysis of data on the incidence and distribution of cases of acute lymphoblastic leukaemia around Sellafield¹ has stimulated several controversial hypotheses concerning causative factors.² Paternal exposure in high risk areas of the reprocessing plant is one suggestion, either by external irradiation or from internally incorporated isotopes, which could cause internal continuous low dose irradiation of the gonads with a potential for damage for which there are currently no relevant published experimental data.

During the past three years we investigated cell targeted indium-114m to the lymphoid system as a radiotherapeutic regimen for treating leukaemia.^{3,4} This entailed extensive tissue distribution studies and whole body clearance of the radioisotope over prolonged periods in a rat model of T cell