Risk factors	No
Injecting drug misuse	24
Blood transfusions in Africa	2
Sexual partner an intravenous drug misuser	5
Sexual partner bisexual	2
Sexual partner or partners abroad	40
Under investigation	2

arrived in the United Kingdom; three (one Australian and two British) had been sexually assaulted abroad; and the remaining three (two British and one Dutch) had had partners abroad—one from central Africa, one from the United States, and one from Holland.

Thirty nine of the 40 women first attended these hospitals after the beginning of 1989, and 35 had acquired the infection during heterosexual contact in Africa. This study supports the contention that most female patients infected with HIV during heterosexual contact who attend departments of genitourinary medicine were infected in Africa and imported the infection into the United Kingdom. Further efforts to identify and help such patients must use this knowledge.

J G AINSWORTH
S M MURPHY
J R W HARRIS

Department of Genitourinary Medicine,
St Mary's Hospital,
London W2 1NY

Vaccines for HIV infected pregnant women?

SIR,—It is premature to consider a programme of vaccination for pregnant women infected with HIV¹ when the nature of transmission of the virus from mother to infant is still poorly understood. Presumably the trial's designers hope that viral components would induce a neutralising antibody response to reduce the viral load; this assumes that the HIV load is directly related to the risk of transmission and that neutralising antibodies control HIV infection in vivo.

The main control of HIV in vivo is probably mediated by HIV specific cytotoxic T lymphocytes, which are highly active in HIV infection,² and, to a lesser extent, by neutralising antibodies or antibody dependent cellular cytotoxicity mechanisms.³ In HIV positive pregnant women active immunisation with proteins based on a single or limited number of strains of virus may accelerate both cytotoxic T lymphocytes and antibody driven HIV escape mutants⁴; passive immunisation may include transfusion of enhancing antibodies and could drive antibody mediated viral mutation to produce highly virulent strains. No "protective" immune response has been identified in those mothers who do not transmit HIV to their infants: the report of protective antibodies has not been borne out by larger studies (J-P Allain *et al*, seventh international conference on AIDS, Florence, 1991).

Before such a vaccine trial is initiated the factors that influence the transmission rate need to be established. Reported rates diverge widely—from 13% in the European collaborative centre study⁴ to 30% in one African study (P LePage *et al*, seventh international conference on AIDS, Florence, 1991). The use of zidovudine during pregnancy and the reduction of postnatal transmission in breast milk could help spare the many hundreds of thousands of unborn children at risk of HIV infection. It is estimated that by the end of 1992 nearly one million infants born to HIV infected mothers will be infected worldwide.⁵ The urgent need for reducing transmission from mothers to infants is not disputed, and potential vaccine manufacturers are probably reluctant to collaborate

with such a trial until a valid rationale for it has been established.

DOUGLAS NIXON

Virology Department,
John Radcliffe Hospital,
Oxford OX3 9DU

1 McBride G. Vaccines for HIV infected pregnant women? *BMJ* 1991;303:665. (21 September.)
2 Nixon DF, McMichael AJ. Cytotoxic T-cell recognition of HIV proteins and peptides. *AIDS* 1991;5:1049-59.
3 Broliden K, Broliden PA, Wahren B. HIV-specific antibody-dependent cellular cytotoxicity and neutralization. In: Janossy G, ed. *The immunology of HIV in section*. Basle: Karger (in press).
4 Aides AE, Newell ML, Peckham CS. European collaborative study. Children born to women with HIV infection: natural history and risk of transmission. *Lancet* 1991;337:253-60.
5 Chin J. Current and future dimensions of the HIV/AIDS pandemic in women and children. *Lancet* 1990;336:221-4.

Side effects of adjuvant tamoxifen

SIR,—Various gynaecologists in the British Gynaecological Cancer Society have brought to our notice the increasing concern over some side effects experienced by women receiving adjuvant tamoxifen for breast cancer. The society has set up a study group to examine all available information.

Adjuvant tamoxifen is associated with a decreased incidence of cancer in the contralateral breast. It is also associated with decreased plasma cholesterol concentration; a decreased incidence of myocardial infarctions, as reported by C C McDonald and H J Stewart for the Scottish Breast Cancer Committee¹; and stabilised bone mineral contents.² Some patients, however, experience abnormal vaginal bleeding, and there are examples of hyperplasia, polyps, and endometriosis.³ Cases of endometrial cancer (usually well differentiated and easily treated) have been reported in women receiving tamoxifen, resulting in suggestions of a small increase in incidence.⁴ A case-control study should be set up to determine the true extent of this problem.

Overall, the side effects of adjuvant tamoxifen are beneficial. The drug should not be stopped because of gynaecological symptoms in patients receiving it for breast cancer. If patients receiving tamoxifen experience abnormal vaginal bleeding they should be referred to a gynaecology clinic in exactly the same way as they would be had they not been receiving tamoxifen.

R E LEAKE

Director, British Gynaecological
Cancer Society Tamoxifen Study Group,
Department of Biochemistry,
University of Glasgow,
Glasgow G12 8QQ

1 McDonald C, Stewart HJ. Fatal myocardial infarction in the Scottish adjuvant tamoxifen trial. *BMJ* 1991;303:435-7. (24 August.)
2 Powles TJ, Tillyer CR, Jones AL, Ashley SE, Treleaven J, Davey JB, *et al*. Prevention of breast cancer with tamoxifen - an update on the Royal Marsden Hospital pilot programme. *Eur J Cancer* 1990;26:680-4.
3 Buckley CH. Tamoxifen and endometriosis: a case report. *Br J Obstet Gynaecol* 1990;97:645-6.
4 Gusberg S. Tamoxifen for breast cancer: associated endometrial cancer. *Cancer* 1990;65:1463-4.

Checking visual acuity

SIR,—Minerva¹ rightly draws attention to a recent article in the annual report of the Medical Protection Society²; the article says that not measuring visual acuity is one of the four commonest causes of litigation. Minerva asks how many doctors include this as part of their medical examination.

We can answer this question. We recently studied 500 consecutive referrals to an eye hospital from general practitioners.³ Of these, 245 were initiated by a general practitioner and 255 by an

ophthalmic optician. The ophthalmic opticians recorded visual acuity in 183 (72%) referrals. General practitioners recorded visual acuity in only nine (4%) referrals, and for patients with a complaint of visual loss the figure rose to only 15 (6%).

We agree that the measurement of visual acuity is an essential part of any eye examination. Measurement is rapid when a Snellen chart is used, and this should be available in every general practice. The chart gives a simple and repeatable measurement of vision that may distinguish severe from trivial disease and urgent from non-urgent referrals. To omit measurement of visual acuity from the eye examination or a record of it from the referral letter is to do a disservice to the patient. We have suggested that a standard format referral letter should be introduced for patients with eye problems; this would improve communication between general practitioners and ophthalmologists and permit rapid and accurate assessment of the patients' needs.

J KWARTZ
N P JONES

Department of Ophthalmology,
University of Manchester, Royal Eye Hospital,
Manchester M13 9HW

1 Minerva. *BMJ* 1991;303:866. (5 October.)
2 Styles WMcN. First impressions—and the lessons from them. In: *Annual report*. London: Medical Protection Society, 1991:22.
3 Jones NP, Lloyd IC, Kwartz J. General practitioner referrals to an eye hospital: a standard referral form. *J R Soc Med* 1990;83:770-2.

High potency factor VIII concentrates

SIR,—Dr John D Cash argues against the widespread use of high potency factor VIII concentrates.¹ We agree with his reasoning: clinically the high potency preparations do not offer any substantial advantage over the intermediate purity concentrates.

The development of high purity concentrates is associated with the need to inactivate possible viruses in the preparation. The solvent-detergent method requires purification steps to remove the inactivating ingredients, and heat treatment effective on hepatitis viruses proved difficult with intermediate potency concentrates. High purity is thus more a consequence of other developments than a value itself, but terms such as "ultrahigh purity" have been skilfully used by commercial companies in their marketing campaigns ("why to use anything less than pure").

The high potency concentrates, besides being free of virus, are more convenient to users. The mere convenience does not justify the substantially higher price. There has, however, been a remarkable development as far as the yield of factor VIII is concerned, which is important from the point of view of national self sufficiency. In fact, some purification technologies in skilful hands now offer a clearly higher yield than was possible with intermediate potency concentrates.

Our fractionation laboratory developed a high purity concentrate free of virus, but the losses in the biological activity of factor VIII were unacceptably high. We therefore elected to buy a licence to manufacture immunopurified factor VIII. We are currently obtaining about a 30% higher yield with this method compared with our old method. With this yield we have been able to maintain national self sufficiency in Finland. Furthermore, with a careful on demand treatment policy for haemophilia the national consumption of factor VIII is only about 2 units per inhabitant, and this demand we can satisfy exclusively with plasma separated from whole blood donations. We are now dismantling our plasmapheresis programme, which is resulting in substantial savings in the overall economy of the blood transfusion service.