To the Editor: I congratulate Professor Erken and Mr B. Rabinowitz (in numerous lectures and public appearances) on their bold stands in trying to protect their colleagues against HIV infection. With notable exceptions the criticism they have received seems to stem largely from non-operating doctors. It’s great for geneticists, physicians or psychiatrists to comment from the safety of their studies when surgeons should or should not be doing in the blood and guts of theatre or casualty!

Anyone who glibly talks of safe surgery is either rather naive or he has never been in theatre for a long time. Even the Americans have abandoned the term ‘safe’ sex for that of ‘safer’ sex. Has anyone seen (or assisted) a new intern doing his first caesarean section? In fact, all doctors in training can for a while not be regarded as safe surgeons. If, as has been suggested, HIV-positive patients are only operated on by more experienced senior staff, how do we tell who is HIV-positive unless everybody is tested?

This brings me to the point of counselling and informed consent. No patient is counselled before a sample is taken for a full blood count. What happens if he or she turns out to have acute septicemia or leukaemia? Should we be counselling all patients on all possible outcomes of the blood tests we do? Why should a surgeon be singled out if he wants to know the HIV status of his patient? Notices stating that HIV testing may be performed if clinically indicated should be prominently displayed in the appropriate areas in hospitals. If a patient wants more information, this should be supplied. If he refuses to be tested he should be regarded as refusing hospital treatment, and dealt with accordingly.

A private practitioner is entitled to choose his patients to a certain extent, i.e. can legally refuse to operate on ‘cold’ HIV cases. But the state-employed doctor has no such right. Does the idea of informed consent not apply to medical personnel? Or are they obliged to undertake any risk merely because they are ‘state owned’?

To the Editor: Possible occupational infection with the AIDS virus is well recognised and the terrible consequences are known to all of us. Much attention is rightly focused on safe working practices, but what are the real risks to health care workers? I have attempted to calculate the actual risk to myself of catching AIDS in the course of my work.

I work in a fairly busy rural hospital and am involved in the usual range of acute and chronic medical care. I practise a lot of practical obstetrics and perform quite a bit of surgery. I am quite experienced in my work now and try to take as much care as I can.

Veeken et al. have presented a formula for calculating the cumulative risk of seroconversion in the workplace. Cumulative risk is \( (1-\left[1-f\right]^n) \), where \( f \) is population seroprevalence, \( p \) is chance of transmission per incident, and \( n \) is number of incidents.

In my own case I assumed the following:

1. Population seroprevalence (\( f \)): in 1991 the KwaZulu/Natal Malaria Survey showed an overall HIV seroprevalence of 2.5%. For ‘sexually active’ ages only the seroprevalence was 3.3%. I am not at risk from the general population but from a selected sub-group of obstetric and trauma cases, in the main. Seroprevalence is higher in females and I estimate that up to 4% is a reasonable value for the population from which I am most at risk.

2. Chance of transmission per incident (\( p \)): a widely quoted figure for the risk of seroconversion following a single needlestick injury is 0.5%. The risk depends on the amount of blood transmitted.

3. Number of incidents (\( n \)): the number of needlesticks suffered varies widely among health workers. Injuries may occur in up to 5.6% of operations. Similarly, less experienced surgeons are at higher risk: up to 12% for assistants as opposed to 4% for consultants. For a group of Dutch doctors working in Africa an annual average of 5 needlesticks was reported. This figure accords with my own experience and I have used it to calculate my own risk. No consideration is made of possible transmission via mucous membranes and broken skin, a well-recognised risk.

The annual risk to me of contracting HIV infection in the course of my work on these assumptions is 0.1% (1/1 000). On the face of it this is not too high. However, working under the same circumstances for 5 years would increase the risk to 1/200. But seroprevalence is increasing all the time. Assuming a doubling every year and stabilisation at Zimbabwe’s current general population seroprevalence of 10 - 20%, the cumulative risk is clearly much higher, 1/90 over 5 years and 1/35 over 10 years. (These assumptions are conservative; in Malawi it is reported that 25% of antenatal patients are HIV-positive.)

Although I have, of necessity, made a number of assumptions in making these calculations, they are all based on published work. I have found it to be a very useful exercise and it certainly has made me much more circumspect in my work. For this reason alone others may wish to calculate their own risk.

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For those who are by now thoroughly outraged, I would suggest ‘putting your money where your mouth is’. Go to your nearest surgical facility and offer your services as an assistant on all HIV-positive patients. If you are a more qualified surgeon, offer to operate on these patients. Perhaps we could have lists of doctors in each area who volunteer for such surgery, just as we have voluntary lists available for patients in detention.

The patient expects to be protected from HIV infection when undergoing surgery. No one would willingly have an HIV-positive physician operate on them.

Finally, HIV infection is largely a behaviour-related disease, i.e. preventable by altering behaviour patterns of consenting adults. In spite of being repeatedly informed, many of these people persist in consenting. Is it not reasonable for doctors to try to minimise their own risk of infection? I would like to endorse Professor Erken’s guidelines on HIV infection and AIDS, with two changes: that the word ‘orthopaedic’ be removed so as to include all surgical procedures, and that the words ‘cold elective’ be removed so as to include emergency procedures as well.

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