

11.54 HIV transmission in hospitals: African study shows 'reassuring' results 26/11 84

MORE than 8 per cent of a group of more than 2000 hospital workers in Kinshasa, Zaire, were infected with the human immunodeficiency virus at the end of 1986. Researchers who carried out the survey say that the figure appears to reflect the level of infection in the community, rather than occupational exposure.

The prevalence of infection in the hospital workers rose from 6.4 per cent in 1984 to 8.7 per cent in 1986. If the same rates of infection applied to the approximately one million people in Kinshasa aged between 20 and 40 years of age, the researchers estimate, "an additional 32 000 persons probably became infected with HIV in Kinshasa between 1984 and 1986".

The researchers, from the US, Belgium, Zaire and the World Health Organization, studied employees at Mama Yemo Hospital in Kinshasa (*New England Journal of Medicine*, 27 October, p 1123). They found the highest rates of infection among employees under 30 years old. In particular, nearly 17 per cent of the women under 30 were infected with HIV in 1986.

Significantly, in both 1984 and 1986, the type of work did not seem to correlate with the prevalence of infection. Doctors and

laboratory workers frequently exposed to HIV-positive patients and blood had similar rates to clerical and administrative workers who had little contact with patients. Almost 6 per cent of physicians were infected, compared with almost 3 per cent of laboratory workers and almost 8 per cent of clerical workers.

More than 11 per cent of female nurses were infected, but, says the report, this was "entirely attributable to the large number of young women in this professional category". The prevalence of infection among nurses did not vary greatly according to where they worked.

The researchers say they found little evidence that certain groups of employees—such as those working in obstetrics or delivery rooms—were at higher risk of infection despite the fact that there are frequent shortages of materials such as gloves, masks, disposable needles, soap, water and clean linen. This lack of association is reassuring, says the report.

But it adds: "The high prevalence rates observed among doctors, nurses and other trained professionals working at the hospital underscore the impact that HIV infection will have on certain essential

professional groups in Zaire."

An American study of health care workers exposed to the blood of people infected with HIV, published in the same issue of the journal (p 1118), has concluded that the risk of infection is low. Out of 860 health care workers exposed to infected blood as a result of a needlestick injury or a cut with a sharp instrument, three became infected with HIV as a result.

All three initially tested negative for antibodies to HIV, had a brief illness, and subsequently had a positive test. (A fourth person was also positive for HIV antibodies following a needlestick injury, but this person was not tested until 10 months after the event, so it is difficult to say whether the accident was the cause of the infection.)

The report concludes that the risk of becoming infected is 4 out of 860 or 0.47 per cent; if the fourth seropositive health care worker is discounted, however, the risk is 3 out of 860 or 0.35 per cent. Other studies have shown similarly low risks following needlestick injuries. In this study, all health care workers who had a negative test for antibodies to HIV six months after the injury remained negative during the rest of the follow-up period. □