The rising prevalence of HIV-1 infection in patients attending an inner city accident and emergency department

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The recently published findings of the unlinked anonymous HIV prevalence study in England and Wales showed unchanging HIV prevalence in groups such as homo/bisexual men, and declining rates in non-injecting heterosexual men attending genitourinary medicine clinics. However, this multicentre study did detect a significant rise in seroprevalence rates in pregnant women in England and Wales and sentinel groups within hospitals in London, warning that changing patterns of HIV infection might account for these variable results. In 1992-1993 a seroprevalence study of adult patients attending the accident and emergency department at St. Mary’s Hospital in West Central London showed a rate of HIV-1 infection of 1 in 77. We have repeated the seroprevalence study over the same calendar months in 1994-1995 to gain further information about HIV positive patients attending the department and to see whether a change in the patterns of HIV infection in the population served by St. Mary’s Hospital had occurred.

Methods and results

Anonymised blood or urine samples were obtained from 1087 consecutive new patients attending the accident and emergency (A&E) department at St Mary’s Hospital between 14 December 1994 and the 31 January 1995. No repeat samples were obtained from reattendees. The collection and numbering of samples conformed to the requirements of the Health Authority ethics committee. Each patient’s sex, age, postal district of residence, general practitioner, and triage group were noted, in addition to whether the patients declared their HIV positivity while in A&E. Data were collected on whether procedures which might involve exposure to blood were performed on each patient and also the subsequent destination of patients (that is, discharged or admitted to medical, surgical, or HIV medicine wards).

In addition, these details were obtained for patients who did not agree to participate in the study (n = 8, 0.25%). No patients were included in the study who were directly referred to the medical, surgical, or the HIV medicine team. The adequacy of urine and blood samples and the rigorous conditions for testing samples for anti-HIV-1 and HIV-2 antibodies (that is, IgG quantitation, enzyme linked immunosorbent assays, and western blotting) were performed as before. The results of the study are shown in the table. The seroprevalence rate of HIV-1 infection has risen to 1 in 30 for male and female patients.
Rising prevalence of HIV-1 infection

aged between 16 and 45 in the A&E department, which sees up to 30,000 new patients in this age group per year. No samples were found to be positive for HIV-2 antibodies.

Discussion
The majority of HIV-positive patients detected in this study were men aged between 26 and 45 years, who presented to A&E with major illness potentially requiring immediate hospital admission and who did not report their HIV status to A&E staff. The proportion of HIV-positive patients who were categorised as foreign visitors had fallen significantly from 75% to 21% (P = 0.012) in 1992 and 1994, respectively. The fact that two of the 19 patients detected as HIV positive by this study were admitted to general medical wards with acute illnesses but without knowledge of their HIV status emphasises the importance of carrying a high index of suspicion of HIV infection and HIV-related disease from A&E into the general medical wards.4

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2 Heptonstall J, Gill ON, Porter K, Black MB, and Gilbart V. Health care workers and HIV: surveillance of occupationally acquired infection in the United Kingdom. CDR Review. 3 R 147.
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