HIV-Infection Rate Reported Among Patients at Baltimore STD Clinics

Screening of patients at inner-city Baltimore sexually transmitted disease clinics has revealed that 5.2 percent had been exposed to the human immunodeficiency virus (HIV), the cause of AIDS, according to a study released today. This rate is 18 times the 0.29 percent rate reported in American military recruits in the mid-Atlantic region in 1986. The study was conducted by National Institute of Allergy and Infectious Diseases senior scientist Dr. Thomas C. Quinn and his colleagues at the Baltimore City Health Department, The Johns Hopkins Medical Institutions, and the Maryland State Department of Health and Mental Hygiene.

"We are quite concerned by the high rate of infection found in these inner-city clinics," said Dr. Quinn. "In particular, we are concerned by the equal rates of HIV infection in young heterosexual men and women, and the close association of HIV infection with sexually transmitted diseases such as syphilis, genital herpes, and genital warts."

Among the most significant of the study's findings was that one-third of the infected men and one-half of all the infected women were either unaware of or did not acknowledge behavior considered to be at high-risk for HIV exposure. "In fact, two-thirds of the younger HIV-infected women, those under 25 years of age, did not acknowledge traditional HIV high-risk behavior, that is, IV drug use or being a sexual partner of an IV drug user, or a bisexual man," said Dr. Quinn.

"The high rates of HIV-infected persons found at the sexually transmitted disease (STD) clinics suggest that screening for HIV, as well as education and counseling about AIDS, should be offered to all patients attending such clinics, a population at high risk for acquiring HIV infection," Dr. Quinn said.

"Data from this study confirm the importance of education in the prevention of AIDS, particularly for young heterosexuals in inner-city areas whose behavior may place them at high risk of infection," said Dr. Anthony S. Fauci, coordinator of AIDS research at the National Institutes of Health, and NIAID director.

In the study, 4,028 clinic patients were screened in early 1987 and 209 were found to have been exposed to HIV. Patients also completed an anonymous questionnaire, which was coded to correspond to the patient's HIV and syphilis serologic results. The questions ascertained demographic information, history of sexual practice, condom use, behavior at high-risk for HIV exposure, and history of sexually transmitted disease. Relative accuracy of the questionnaire results was verified by comparing them with information from 20-minute person-to-person interviews of these sexually transmitted disease patients by experienced interviewers at the same clinics.
Two-thirds of the study patients were men whose median age was slightly higher (24 years) than that of the women (21.5 years). Roughly 94 percent of the patients were black, 5 percent were white and 1 percent were other races. HIV rates were higher for the men (6.3 percent) than for the women (3.0 percent), and higher for blacks (5.0) than for whites (1.2 percent) of either sex, supporting concerns that HIV is spreading disproportionately in inner-city minority groups. Overall, HIV infection rates increased with age; 2.2 percent of 15 to 19-year-olds were infected, while 9.9 percent of those 30 years or older had been exposed to HIV. Increased HIV infection rate was not correlated with increased age in women, however.

In men, HIV seropositivity correlated with acknowledgment of homosexual or bisexual activity or intravenous drug use since 1978, and with a past history of syphilis, gonorrhea, hepatitis, genital herpes, or genital warts. In women, HIV infection correlated with intravenous drug use, bisexual or IV drug-using sexual partners, or with a history of genital warts. This suggests that sexually transmitted diseases that disrupt the skin surface may make individuals more susceptible to HIV infection during sexual intercourse with an HIV-infected person.

Dr. Quinn and his colleagues found a relatively high rate of HIV infection (equally distributed between the sexes) in men and women younger than 25 years old. "In a separate Baltimore study, 70 percent of women younger than 20 years old had previously been pregnant; in this study 3 percent of women in that age-group were infected with HIV. These infected women have the potential to further perinatal transmission of HIV infection in future pregnancies. Age- and sex-related factors for the infected patients are very similar to those observed in central Africa where HIV is heterosexually transmitted, and remarkably similar to patterns of syphilis and gonorrhea transmission in the United States among heterosexuals," Dr. Quinn said.

"If the high HIV infection rates found in this study indicate that certain sexually transmitted diseases serve as cofactors enhancing heterosexual transmission, then it is likely the rate of HIV infection will continue to increase in this population," said Dr. Quinn. Screening and counseling for HIV infection at sexually transmitted disease clinics may reach persons in high risk groups who do not acknowledge high-risk behavior, or do not perceive a need for education or testing. Such screening would also enable monitoring of HIV prevalence in selected populations potentially at greatest risk of HIV infection.

Dr. Quinn and his colleagues report these results in the January 28, 1988, New England Journal of Medicine article entitled "Human Immunodeficiency Virus Infection Among Patients Attending Clinics for Sexually Transmitted Diseases." In addition to Dr. Quinn (1), who also has an appointment at Johns Hopkins, the authors are David Glasser (2), Robert O. Cannon (3), Diane L. Matuszak (4), Richard W. Dunning (2), Richard L. Kline (1), Carl H. Campbell (5), Ebenzer Israel (4), Anthony S. Fauci (1), and Edward W. Hook III (3).
(1) Laboratory of Immunoregulation, NIAID, NIH, Bethesda, Md.
(2) Baltimore City Health Department, Baltimore, Md.
(3) The Johns Hopkins Medical Institutions, Baltimore, Md.
(4) Maryland State Department of Health and Mental Hygiene, Baltimore, Md.
(5) Centers for Disease Control, Atlanta, Ga.

# # #