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The Voluntary Acceptance of HIV-Antibody Screening by Intravenous Drug Users

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Synopsis

Intravenous drug abusers in a methadone program in Minnesota were offered HIV-antibody screening to determine the degree of interest in screening and extent of infection. Thirty-nine (85 percent) were willing to be tested. Only seven refused. All patients were aware of acquired immunodeficiency syndrome (AIDS) and their high risk of exposure to the AIDS virus through sharing of injection paraphernalia. None reported exposure to additional risk factors, such as homosexual or bisexual activity or having received a blood transfusion.

Of the patients tested, none was positive for HIV antibodies. The high degree of patient interest in screening was unanticipated as was the lack of positive laboratory findings for HIV antibodies. Factors associated with acceptance of testing included patient awareness of high seroprevalence rates, indifference to potential negative social consquences of positive HIV-antibody status, and the voluntary nature of the testing. These findings raise a cautious sense of optimism about HIV-antibody screening for similar risk groups.

CONSIDERABLE PUBLIC ALARM HAS BEEN created by the fear of widespread exposure to acquired immunodeficiency syndrome (AIDS). The number of cases meeting surveillance criteria of the Centers for Disease Control is predicted to double within the year (*1*). Data indicate extensive exposure to the AIDS virus human immunodeficiency virus (HIV) or HTLV-III/LAV in high-risk populations (*2*). In reaction, some local and national political figures have urged the passage of laws for the mandatory screening of individuals in the two primary high-risk groups—homosexual and bisexual males and intravenous (IV) drug users. In contrast to this stand, the Public Health Service has recommended voluntary testing for persons in high-risk groups (*3*).

Intravenous drug users are identified as the second highest risk group for the development of AIDS, constituting as many as 32 percent of reported cases in some areas (*4*). An estimated 270,000 IV drug users are infected in the United States alone (*5*). Spira and coworkers (*6*) found that among 86 New York City IV drug users in a drug detoxification program, 87 percent were seropositive for HIV antibodies in laboratory screening (ELISA) (*7*). In contrast, it has been reported that less than 10 percent of 35 methadone patients in New York City were seropositive (*8*).

Based on these reports, it was estimated that a number of patients currently active in an outpatient methadone maintenance program would test positive for HIV antibodies. In addition, clinic staff anticipated difficulty in securing voluntary patient cooperation with laboratory screening.

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Methods

Several patients requested HIV antibody testing who were active in the Outpatient Methadone Maintenance Program at the Veterans Administration Medical Center, Minneapolis, MN. In response, all patients in the program were offered HIV antibody screening (ELISA) as of October 15, 1985. In addition to being offered the test, all patients were asked about their

- knowledge of AIDS and specific risk factors associated with transmission of the virus,
- willingness to be tested for presence of HIV antibodies,
- exposure to additional risk factors, such as homosexual and bisexual activity or having received a blood transfusion,
- history of sharing needles and syringes,
- geographic mobility, and
- history of plasma-blood donation.

Patient records were also reviewed for age, race, length of addiction, urine drug screening record, employment and school status, months in methadone treatment, and hepatitis-B antigen status.

Information about the availability of screening was provided to all patients in clinical interviews administered by program staff. Risk-associated behavior was discussed, as was the fact that being HIV-seropositive does not absolutely result in development of AIDS. Patients were told that screening results (positive or negative) would be documented in their medical record and protected under Veterans Administration confidentiality provisions requiring signed consent prior to release. In addition, patients were instructed that nonparticipation would have no effect on their treatment; that is, screening was not a procedure required by the program.

Results

There were 46 patients enrolled in the Outpatient Methadone Maintenance Program when laboratory screening was made available. All patients were men with a mean age of 32.2 years (range, 27–53 years). Thirty-nine men (84.8 percent) were white, and 7 were black. The length of opiate addiction ranged from 2 to 34 years (mean, 16.4 years). Sixty-eight percent reported either full-time employment or being in school. None was positive for hepatitis-B antigen. The mean length of methadone maintenance was 2.3 years (range, 1 month to 7 years). Clinical urine analysis for drug screening indicated varying degrees of ongoing illicit drug abuse, including those drugs usually administered intravenously. Opiates were the major drug of abuse. Visual inspection of the antecubital area during the blood drawing procedure revealed both old and recent needle puncture marks, indicating continued "at risk" behavior.

In clinical interviews, all patients reported awareness of AIDS. They were also aware of being in a high-risk group. Thirty-nine of the 46 patients (85 percent) were willing to be tested for presence of the HIV antibody. The remaining seven patients (15 percent) refused testing, all stating they had not administered drugs intravenously over the past several years and did not consider themselves to be at risk. A review of urine-drug screen records for these patients confirmed the self-reported abstinence of five patients, with the remaining two showing a pattern of illicit drug use comparable to those accepting screening. None of the 46 patients admitted exposure to additional risk factors, such as homosexual or bisexual activity or having received a blood transfusion.

Thirty-two patients (69 percent) reported sharing of drug paraphernalia during the past 5 years, with a mean of 140 episodes. Only one clinic patient had resided out of state prior to entrance into our methadone program. Ten patients (22 percent) had taken at least one trip for 5 days or longer out of state when on methadone maintenance. Trips included travel to areas of high HIV seroprevalence (New York, Miami, San Francisco, New Orleans). However, only 3 of the 10 patients reported sharing of injection paraphernalia. Urine-drug screen analysis for this group did confirm some illicit drug use while out of state. Five of 46 patients (11 percent) had donated blood plasma for

cash an estimated 50 times or more over the previous 5 years.

Of the 39 patients requesting the ELISA test for HIV antibodies, results from 32 are available. None was serum positive. For the seven remaining patients, it was not possible to secure a blood sample beause of the deteriorated condition of their veins.

Discussion

It is noteworthy that all clinic patients were aware of AIDS and their high risk for exposure to the AIDS virus through IV drug use and the sharing of injection paraphernalia. This is contrary to the widely held belief that opiate addicts are, as a group, poorly informed about health risks associated with their drug abuse. It has been reported that drug abusers, unlike the homosexual and bisexual risk group, lack a social network that would facilitate dissemination of information about AIDS and its transmission (*9*). We did not find this to be true for our patients, although there was no indication that awareness of transmission factors directly influenced either entrance into treatment or avoidance of sharing syringes and needles.

Second, the clinic staff believed this group of patients would resist HIV-antibody laboratory testing, for many of them had actively resisted program requirements for routine laboratory testing and physical and psychological examinations. Surprisingly, the majority of the patients cooperated with the HIV-antibody testing and openly discussed their risk-associated behaviors. Factors associated with voluntary acceptance of HIV-antibody testing included patient awareness of high seroprevalence rates among IV drug users elsewhere in the United States, an indifference to possible discrimination or negative social consequences related to being identified as HIV-antibody positive, and the opportunity in an open-ended interview to correct erroneous assumptions and beliefs about AIDS and its transmission. When testing was offered, seroprevelence rates among local IV drug users were unknown; however, it was feared by the patients to be high. The fact that screening was made available on a completely voluntary basis seemed in and of itself to influence acceptance strongly. These findings raised a cautious sense of optimism with regard to the feasibility of offering voluntary screening to similar high-risk groups.

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The high number of patients (69 percent) reporting the sharing of injection paraphernalia over the past 5 years is of concern. This is consistent with reports elsewhere (*4,10*). Ongoing urine drug-screen analysis and visual inspection confirmed the continued at-risk behavior of some patients even during participation in a methadone maintenance program. Unlike Friedland and coworkers (*10*), who found the vast majority of New York City street addicts not to be geographically mobile, 22 percent of our midwestern patients had traveled out of state during methadone maintenance. High mobility may be of concern to programs with serum-positive patients. Although only five patients reported blood plasma donations as a source of income, the actual number of such donations was extremely high. This behavior supports the rationale for a recommendation by the Public Health Service that high-risk groups not donate (*11*).

Although reassuring, it was unanticipated to find no serum-positives in this midwestern group of IV drug abusers. This finding is surprising, considering the 16.4 mean years of addiction and the urine drug screening indicating ongoing use of illicit drugs commonly administered intravenously. Although we found no evidence of the spread of the AIDS virus among the group surveyed, recent estimates (*2*) of serum positivity for IV drug users as a whole provide little basis for a complacent attitude. An unexpected finding may be of concern to persons attempting widespread HIV screening for this particular risk group: seven more patients wanted to be tested, but blood samples could not be drawn because of the condition of their veins.

It is likely that upper midwest addicts enrolled in a Veterans Administration methadone maintenance program differ substantially from their peers elsewhere in such ways as preaddiction adjustment, level of educational achievement, employment, and criminality. Information about the availability of

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screening was given to each patient individually by an experienced drug counselor assigned to the program for many years. All testing was done on-site and at times convenient to the patients. It is not known unequivocally to what extent these factors positively influenced interest in screening. The other methadone program in the area did not offer on-site testing or take particular interest in HIV-antibody screening, and a substantially lower rate of testing acceptance was reported for its clients.

The results of this survey support the feasibility of voluntary testing among IV drug users. Such an approach would be a preferred alternative to proliferation of local and national laws requiring mandatory screening, with the resulting compliance issues complicating an already difficult public health problem. Furthermore, it may be that methadone maintenance treatment offers some protection against exposure to the AIDS virus while providing a practical setting for AIDS-related education and testing.

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