

In summary, no significant differences were seen between IDV/r and LPV/r with respect to changes in serum lipids in this small cohort of HIV-positive patients. Our results are obviously limited by the small sample size of our cohort as well as the retrospective nature of the study. However, by selecting patients who were not receiving concomitant nonnucleoside reverse transcriptase inhibitor or additional PI therapy, the influence of either boosted PI on serum lipids may be more readily discernible. Results of a previously published retrospective study comparing IDV/r and LPV/r noted higher serum total cholesterol levels in the IDV/r group at month 3 and month 12 of the analysis.⁴ This cohort differed from ours, however, in that the patients studied were all antiretroviral naive. As well, it was unclear from the data if the 2 groups were well balanced with respect to baseline characteristics that may be predispose to elevations in serum lipids. Comparative randomized trials of IDV/r and LPV/r are necessary to fully elucidate the virologic, immunologic, and metabolic profiles of each approach.

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Highly Active Antiretroviral Therapy in Turkey: Should We Follow the International Guideline or Is a Modified Plan Warranted? The Jury Is Still Out

To the Editor:

Since 1985 when the first AIDS case was reported in Turkey, the number of persons with HIV infection has increased. By the end of December 2003, there were 1712 HIV-infected patients.¹ The striking increase in the number of HIV patients in recent years suggests that HIV/AIDS will become a priority public health concern in Turkey in coming years.

Antiretroviral therapy is a key element in the overall management of HIV infection. Antiretroviral treatment guidelines are changing at an enormous pace. AIDS has yet to be taken seriously in our country, mainly due to the low number of known cases, but as physicians working with limited resources, we would like to treat our patients in the most effective way. However, our country's economic realities are keeping us in constant conflict between our current knowledge and the treatment options at hand.

In March of 2004 the Department of Health and Human Services (DHSS) updated the Antiretroviral Treatment Guidelines, including recommendations regarding “preferred” and “alternative” treatment modalities.² Among the nonnucleoside reverse transcriptase inhibitors (NNRTIs), efavirenz is referred to as a “preferred” drug, but the drug has yet to be marketed in Turkey. Conversely, the preferred protease inhibitor (PI) lopinavir/ritonavir is available in Turkey. However, with the unavailability of efavirenz, we have doubts about starting with such a PI combination; firstly, such a combination would require the consumption of 8–10 tablets a day, but in developing countries like ours, patient compliance is an important problem. Among all the patients followed up until December 2002 in the Infectious Diseases Unit at Hacettepe University's Faculty of Medicine, 50% failed to return

for their follow-up visits. Moreover, the PI scheme would prove more costly than the NNRTI scheme. The third problem is that we would be left without a treatment option in patients who develop virologic unresponsiveness. Resistance tests are currently unavailable in Turkey, and any changes would need to be empiric.

Recently, as part of a project spearheaded by the Ministry of Health, a task force consisting of specialist physicians has been assigned to deal with such pending problems, and efforts to develop Turkish HIV/AIDS treatment guidelines are underway. Some believe that regardless of the economic conditions in our country, we should stay true to the DHSS guidelines, and that the government should undertake the task of providing the necessary drugs. Others support the idea of developing national guidelines that would better suit our patient profile. A final decision has yet to be made. The jury is still out!

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Persistent HIV Incidence Among Injection Drug Users in San Francisco During the 1990s: Results of Five Studies

To the Editor:

HIV incidence estimates are needed to track the epidemic, target resources for populations at risk, assess the impact of

This work was supported by the National Institute on Drug Abuse (R01-DA09532, R01-DA12109, R01-DA12129 and R01-DA-12803), the Universitywide AIDS Research Program of the University of California, the San Francisco Department of Public Health, the Centers for Disease Control and Prevention (U54/CCU-902948, U64/CCU902948 and U62/CCU913184), and the Kaiser Family Foundation.

TABLE 1. HIV Incidence Among Injection Drug Users: San Francisco, 1990–1999

| | STD | DTC | ATS | UHS | UFO |
|---|-------------------|-------------------|-------------------|-------------------|-------------------|
| Total | 1688 | 5555 | 2072 | 11,547 | 1270 |
| Recent seroconversions, n | 17 | 3 | 13 | 33 | 2 |
| HIV incidence, % per year (95% CI) | 2.85 (1.28, 5.77) | 0.15 (0.02, 0.59) | 1.78 (0.72, 3.86) | 0.81 (0.44, 1.42) | 0.45 (0.03, 2.16) |
| Incidence by year | | | | | |
| 1990 | 3.18 | 0 | — | 1.52 | — |
| 1991 | 2.79 | 0.21 | — | 0.42 | — |
| 1992 | 0 | 0 | — | 1.25 | — |
| 1993 | 0 | 0 | — | 0.41 | — |
| 1994 | 6.74 | 1.32 | — | 0.75 | — |
| 1995 | 0 | 0 | — | 1.11 | — |
| 1996 | 1.65 | 0 | 1.61 | 0.73 | — |
| 1997 | 6.43 | 0 | 0 | 1.01 | 0 |
| 1998 | 1.95 | 0 | 2.46 | 0 | 0 |
| 1999 | 4.56 | — | 0.94 | 0 | 1.04 |
| χ^2 test for trend (<i>p</i> value) | 0.46 | 0.56 | 0.84 | 0.15 | 0.35 |

HIV incidence and 95% CIs calculated following the methods of Janssen et al.¹

ATS, all anonymous testing sites in San Francisco; DTC, a large, public drug treatment center in San Francisco; STD, San Francisco's single, municipal sexually transmitted disease clinic; UFO, "You Find Out," a University of California, San Francisco, research study of young IDUs; UHS, the Urban Health Study, a community-based study of street-recruited IDUs.

prevention efforts, and plan for health care needs. The development of a less sensitive enzyme immunoassay (EIA)¹ capable of distinguishing recent infections from longstanding ones has made it possible to examine temporal trends in HIV incidence using repositories of specimens from serial cross-sectional surveys. The present report extends annual HIV incidence estimates for injection drug users (IDUs) using specimens from 5 studies in San Francisco to assess trends during the 1990s.²⁻⁷

The 5 studies included diverse IDU populations recruited by different methods. The first was an unlinked, anonymous HIV prevalence survey that followed standard sentinel surveillance protocols of the Centers for Disease Control and Prevention (CDC).² Subjects were patients who reported injection drug use when they were screened for sexually transmitted diseases (STDs) at the city's only municipal STD clinic from 1990 through 1999.² HIV testing was done on leftover sera originally collected for syphilis screening after stripping the specimens and accompanying data of personally identifying information. The second study followed similar CDC sentinel surveillance protocols for IDU clients of a drug treatment center who were routinely screened for syphilis from 1990 through 1998.³ The third study comprised all IDU clients who sought voluntary, anonymous HIV counseling and testing at all public sites in San Francisco from 1996 through 1999.⁴ The fourth

study included IDUs who participated in the Urban Health Study,⁵ a University of California San Francisco-based research program, from 1990 through 1999. The Urban Health Study recruits IDUs in serial cross-sectional surveys by targeted sampling, a method that uses street outreach and knowledge of the locations where different segments of the IDU population concentrate. The fifth was the UFO ("You Find Out") study, which included street-recruited IDUs under 31 years old sampled by convenience methods in various areas of San Francisco known to be frequented by young IDUs.^{6,7}

HIV incidence was estimated using the Abbott version of the less sensitive EIA,¹ which becomes positive a mean of 129 days (95% CI, 109, 149) after seroconversion with a standard (sensitive) EIA test. The less sensitive EIA was applied to stored specimens from the 5 studies that were previously confirmed to be HIV positive by a sensitive EIA and Western blot or immunofluorescent antibody testing. The proportion of study participants seroconverting in the previous 129 days was then converted to an annual incidence rate using methods previously described.¹

HIV incidence in all studies combined was 0.87% per year (95% CI 0.54, 1.36) (Table 1). The incidence among men who have sex with men and inject drugs (MSM-IDUs) was 4.36% per year (95% CI 2.37, 7.63) compared with 0.51% per year (95% CI 0.26, 0.92) among heterosexual male and female IDUs. The

incidence rate was highest among IDUs who were patients of the STD clinic (2.85% per year) and lowest among clients of the drug treatment center (0.15% per year). None of the studies exhibited a statistically significant temporal trend in HIV incidence, either for MSM-IDUs or non-MSM-IDUs or all subjects combined.

Aggressive HIV prevention interventions targeted at needleborne transmission among IDUs were implemented in San Francisco in the late 1980s and sustained consistently during the 1990s, including street-based outreach education, free HIV counseling and testing, and needle exchange. The HIV incidence among IDUs in San Francisco during that decade was lower than in Baltimore and New York, although the incidence in those cities declined during that decade as those interventions were implemented there.⁸⁻¹⁰ The high incidence among MSM-IDUs and among STD clinic patients who use injection drugs suggests that further reductions in HIV incidence among IDUs in San Francisco may require targeting high-risk sexual behavior. Of note, the sexual networks of MSM-IDUs are connected to other segments of the MSM community in San Francisco where the prevalence and incidence of HIV is higher than among non-MSM-IDUs.^{2,4,11}

The studies presented here have limitations. Clients in 3 of the studies were specifically accessing services, ie, STD screening, drug treatment, or HIV

counseling and testing.²⁻⁴ The incidence among STD clinic patients, however, was the highest, consistent with the contribution of sexual HIV transmission among IDUs,¹⁰ and the incidence among drug treatment centers was the lowest, suggesting that those entering substance abuse treatment may be at lower risk. Nonetheless, the convergence of the estimates from diverse study populations and recruitment methods may compensate somewhat for the selection bias in the individual studies separately.

While it is encouraging that HIV incidence did not increase, the seroconversion rates observed in these studies appear to be sufficient to sustain HIV infection among IDUs in San Francisco indefinitely. Moreover, the rate of HIV infection among MSM-IDUs remains very high. The estimated HIV prevalence among IDUs in San Francisco has remained stable, between 10–15%, for 15 years,¹⁰ despite the decline in incidence in the late 1980s that coincided with the introduction of needle exchange programs, access to free HIV testing and harm reduction counseling, and IDU community education.¹⁰ Prevention efforts need to be intensified, particularly among sexual high-risk groups such as MSM-IDUs, while strong needleborne prevention measures are kept in place, if the HIV epidemic in IDU is to be reversed.

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ERRATUM

In the September 1, 2004 issue of the Journal, in the article entitled “Phase I/II Study of a Candidate Vaccine Designed Against the B and E Subtypes of HIV-1”, the degrees for Punnee Pitisuttithum were incorrect. The correct notation is as follows: Punnee Pitisuttithum, MBBS, DTM&H, FRCPT.