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AIDS Study Marks Prevention Breakthrough

Antiretroviral Drugs Are Shown to Make Patients Far Less Infections

By MARK SCHOOFS

Treating AIDS patients with antiretroviral drugs makes them strikingly less infectious, researchers said Thursday, in a landmark finding that is likely to reinvigorate efforts to slow the pandemic.

The results were so overwhelming that an independent panel monitoring the research recommended the results be released four years before the large, multi-country study had been scheduled to end.

"This new finding convincingly demonstrates that treating the infected individual—and doing so sooner rather than later—can have a major impact on reducing HIV transmission," said Anthony Fauci, director of the National Institute of Allergy and Infectious Diseases, which provided most of the funding for the study.

Agence France-Presse/Getty Images

A nurse makes takes care of a terminally ill patient at an HIV/AIDS clinic in Kiev in 2010.

The randomized trial of 1,763 couples—in which one partner had HIV and the other didn't—confirms a growing body of less rigorous research and is likely to inject new urgency into treatment campaigns, which could have the added benefit of slowing the spread of HIV. AIDS workers have dubbed this "treatment as prevention."

The study, conducted in nine countries, was funded by the National Institutes of Health and led by Myron Cohen, director of the Institute for Global Health and Infectious Diseases at the University of North Carolina at Chapel Hill.

The trial involved couples, 97% of whom were heterosexual. The HIV-infected partners started off with a moderately healthy immune system.

About half of the couples were randomly assigned so that the infected partner

went on antiretroviral drugs right away. In the other couples, the infected partner waited to start treatment until later in the course of the disease, a common practice in many countries. All participants were counseled on how to protect against HIV transmission and were given condoms and other prevention services.

In the group that waited to start treatment, 27 infections occurred in which the virus was genetically linked to the infected partner. All of those infections occurred when the patient was not yet taking antiretroviral drugs.

In the group that started treatment right away, only one genetically linked infection occurred.

Comparing the two rates of infection, patients taking antiretroviral drugs were 96.3% less likely to pass on the virus. That result was highly statistically significant.

"Most authorities would still recommend use of other preventive methods such as condoms," even if the HIV-positive sexual partner is on antiretroviral treatment, Kevin De Cock, director of the Center for Global Health at the U.S. Centers for Disease Control and Prevention, wrote in an email.

Noting that the study is new, he added that the CDC has not issued guidance on the prevention benefit of antiretroviral therapy.

The researchers learned the results on April 28 and cautioned they are still analyzing the data, which typically takes months to vet. Study subjects who are not yet on treatment are being offered antiretroviral drugs.

Patients on antiretroviral medication are less infectious because the drugs sharply suppress the amount of HIV in the body, meaning people on treatment simply have less virus to transmit.

Beyond reducing transmission, starting treatment right away appeared better for the health of patients. For example, compared to those who delayed therapy, those who went on drugs immediately were less likely to contract a type of tuberculosis that occurs outside the lungs. HIV weakens the immune system, leaving patients susceptible to infections such as TB.

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