

Updated HIV therapy guidelines would reduce risk of transmission, save lives, billions in costs

June 7 2010

Researchers from the BC Centre for Excellence in HIV/AIDS (BC-CfE) and the University of British Columbia today released a comprehensive study revealing that the 2008 IAS-USA therapy guidelines for commencing HIV treatment would create significant benefits for individuals infected with HIV and society as a whole.

The peer-reviewed mathematical modeling study, published in the research journal [PLoS ONE](#), shows that full implementation of HIV treatment guidelines updated in 2008 by the International AIDS Society (IAS) would lead to more people entering treatment in British Columbia (B.C.). In addition, the study shows an increase in lives saved, billions of dollars in costs averted, and a significant decrease in HIV infections.

"The study results are critically important because they reinforce the significant individual and societal benefits of starting earlier HIV treatment and provide further momentum for treatment as prevention, which - in the absence of a vaccine or cure - remains the best way to contain and halt the spread of HIV," said Dr. Julio Montaner, Director, BC Centre for Excellence in HIV/AIDS; President, IAS; and the Chair in AIDS Research and Head of Division of AIDS in the Faculty of Medicine at the University of British Columbia.

When the study was conducted, 4,379 people were on highly [active antiretroviral therapy](#) (HAART) in B.C. under 2006 guidelines, and an

additional 6,781 individuals qualified for treatment based on the 2008 guidelines. Approximately 12,300 people were infected with HIV in B.C. at the end of 2005, with 25 per cent to 30 per cent of HIV-infected individuals unaware of their HIV status. The BC-CfE estimated the impact of HAART expansion in B.C. based on 2008 guidelines for different expansion scenarios, and focused on the 50 per cent and 75 per cent coverage of those medically eligible to receive HAART treatment. All scenarios were compared to the treatment coverage in B.C. under the 2006 IAS guidelines.

Results demonstrated that HAART expansion would result in a prompt decrease in HIV/AIDS morbidity and mortality and a decrease in new HIV infections. In five years, if the 50 per cent coverage scenario was adopted, B.C. was expected to avert 1,360 HIV infections, prevent the loss of 4,155 person years of disability and mortality, and avoid approximately \$21 million in health care costs. Under this scenario, in 40 years 11,387 new HIV infections would be averted and the equivalent of \$4.2 billion in HIV lifetime treatment costs could be avoided.

If coverage were increased to 75 per cent of medically eligible people, BC-CfE estimated that 14,911 new HIV infections would be averted in 40 years, representing \$5.6 billion in avoided lifetime HIV treatment costs.

HAART, the landmark drug cocktail that was partially developed at the BC-CfE, has been adopted in Canada and around the world as the gold standard treatment for HIV. At an individual level, HAART stops HIV from progressing to AIDS, extends life expectancy, and significantly reduces HIV-related morbidity and mortality. At a community level, there is strong and growing evidence that people with HIV who are appropriately treated become dramatically less likely to transmit the virus.

The 2008 IAS-USA guidelines substantially expanded eligibility to HAART by, among other factors, raising the CD4 cell count at which treatment starts and recommending immediate treatment for those with underlying health conditions such as cardiovascular disease, HIV-associated nephropathy, and chronic hepatitis B or C.

Implementing the revised IAS-USA guidelines for the use of HAART in adults is associated with many challenges, including significant up-front costs. However, the BC-CfE analysis demonstrates that ramping up HAART would be highly cost-effective and cost-averting to the health care system within a decade.

This model was based on the epidemic in B.C., which is concentrated among men who have sex with men and injection drug users. Most other parts of the world have generalized epidemics. Such differences should be taken into account when reviewing B.C.'s results in the context of the epidemic in other areas.

"HAART expansion based on the 2008 IAS-USA guidelines has tremendous potential to further improve health outcomes among HIV-infected individuals in B.C. and throughout the world," said Montaner. "Furthermore, under the BC-CfE's treatment as prevention program, expanding HAART coverage could substantially change the course of the HIV epidemic by decreasing rates of HIV transmission, tuberculosis, malaria and other infectious diseases and therefore curbing the growth of the HIV epidemic."

The HIV epidemic remains challenging. In 2008, an estimated 33 million individuals were living with HIV/AIDS in the world, approximately 2.7 million became HIV infected and two million died from AIDS-related causes.

The B.C. provincial government has invested \$48 million over four years

in a pilot project to expand HAART treatment called Seek and Treat. It will expand access to HIV/AIDS medications among hard-to-reach populations, including sex trade workers, injection drug users and men who have sex with men. By engaging more British Columbians living with HIV/AIDS in HAART, better care will be provided and the treatment will significantly reduce or eliminate the virus' ability to spread. B.C.'s Seek and Treat program is being evaluated as part of the BC-CfE's innovative research program, Seek and Treat for the Optimal Prevention of HIV/AIDS (STOP HIV/AIDS). STOP [HIV/AIDS](#) has received a US\$2.5 million Avant Garde Award from the US National Institute of Drug Abuse (NIDA) of the National Institutes of Health.

More information: [dx.plos.org/10.1371/journal.pone.0010991](https://doi.org/10.1371/journal.pone.0010991)

Provided by University of British Columbia

Citation: Updated HIV therapy guidelines would reduce risk of transmission, save lives, billions in costs (2010, June 7) retrieved 19 April 2024 from <https://medicalxpress.com/news/2010-06-hiv-therapy-guidelines-transmission-billions.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.
