

## Earlier HIV antiviral treatment can be cost effective in areas of limited resources

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Early initiation of lifesaving antiretroviral therapies should be the standard of care for all HIV-infected patients, even those in countries with limited medical and financial resources, according to a study led by researchers at Massachusetts General Hospital (MGH) and the Desmond Tutu HIV Centre, University of Cape Town, South Africa.

The team reports in the August 4 *Annals of Internal Medicine* that starting antiretroviral therapy (ART) when the level of [CD4 T cells](#) drops below a threshold of 350 per microliter of blood, compared with below 250, would prevent nearly 76,000 deaths and avert 66,000 opportunistic infections over the next five years at an estimated cost of \$1,200 per year of life saved. The study's publication coincides with the International [AIDS](#) Society Conference meeting which started yesterday in Cape Town.

The study provides strong support for broadening the eligibility standards for ART in settings with sufficient access to drugs, the authors note. In the U.S. and other developed countries, ART is usually initiated when the CD4 count - a measure of [immune system](#) function - drops below 350. Recognizing that ART is both costly and can have significant side effects, the 2006 World Health Organization (WHO) treatment guidelines suggest waiting until CD4 counts drop below 200 or until patients develop AIDS-related complications.

"While those standards accommodate the limited resources and short supply of medications in many settings, the greater prevalence of

tuberculosis and other opportunistic infections in places like South Africa argue for earlier treatment initiation, even before the results of ongoing clinical trials are known." says Rochelle Walensky, MD, MPH, of the MGH Division of Infectious Disease, associate professor of Medicine at Harvard Medical School, who led the study.

Definitive clinical trial findings will not be available for several years. Yet in countries like South Africa, which currently has the world's highest burden of [HIV](#) infection, information is needed today to guide treatment policies and practices. To address this need, Walensky and colleagues developed a mathematical model to simulate HIV treatment and its associated health and economic outcomes. The model calculated the additional costs of earlier treatment, its potential toxicities and its benefits, including TB prevention. It also calculated how much delaying ART would shorten patients lives and then estimated the cost per extra year of life gained - a standard measure of cost-effectiveness - of earlier ART initiation.

"The time has come to act on the information we now have, nearly all of which supports starting treatment earlier. We can re-evaluate the situation after the trials, but until those results are available, the evidence points to saving lives with earlier treatment," says co-author, Robin Wood, FCP, MMed, DTM&H, director of the Desmond Tutu HIV Centre at the Institute of Infectious Diseases and Molecular Medicine, University of Cape Town, a leading HIV clinical research group in South Africa

Source: Massachusetts General Hospital ([news](#) : [web](#))

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