

AIDS: Chinese study raises flag over drugs-as-prevention hope

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A Chinese study published on World AIDS Day on Saturday says drugs used to curb HIV in infected people also help protect their uninfected partner, but far less effectively than other research has found.

The idea of using [antiretrovirals](#) to prevent HIV as well as treat it leapt into the headlines last year when researchers reported stellar results from trials in Africa, Asia and the United States.

In a careful experiment, they recruited 1,763 so-called "serodiscordant" couples, meaning one partner had HIV and the other was uninfected.

If the [HIV patient](#) was given antiretroviral drugs, this reduced the risk—by a massive 96 percent, equal to the effectiveness of a condom—of transmitting the virus to the partner, the investigators found.

Acting on this breakthrough, the [World Health Organisation](#) (WHO) recommended that the infected partner in a "serodiscordant" couple be given antiretrovirals regardless of their count of CD4 [immune cells](#), a benchmark for initiating treatment.

The new study, published in The Lancet, looked back at how Chinese "serodiscordant" couples have fared.

The importance here is that the conditions are real life, and different from medical trials where for ethical reasons, couples are regularly

advised about safe sex and their health and wellbeing are more closely monitored.

Researchers led by Yiming Shao, a professor at the Chinese [Center for Disease Control and Prevention](#) in Beijing, trawled through China's national HIV database.

They examined the state of more than 38,000 "serodiscordant" couples, who were followed for up to nine years, from 2003 to 2011.

Of this total, 24,000 of the couples were under treatment while 14,000 were not under treatment during the period they were studied.

Biannual [HIV tests](#) were given, and these were recorded along with other data such as how any [HIV infection](#) had occurred.

The team found that in the treatment group, protection against HIV for the non-infected partner was 26 percent—a figure much lower than found in the big trial unveiled last year.

They also discovered that the protection only seemed to last for a year, after which transmission rates were comparable for both the treated and untreated groups of couples.

And treatment-as-prevention was not so effective when the HIV-positive partners were injected drugs or had very high CD4 cell counts.

Shao's team says that even with 26-percent effectiveness, the policy is still good.

But, they say, it also has limitations that depend on the type of patient, although further work is needed to get a fix on this problem.

"These results substantiate the previous evidence... that the treatment-as-prevention approach is a feasible public health prevention strategy on a national scale and in a developing country context," they write.

"It's possible that increasing rates of resistance to treatment in patients with high CD4 level, or decreasing adherence to treatment in patients injecting drugs, are contributing to the reduction in the protective benefit of treatment over time, but this, and other possibilities, will need further investigation."

The study coincided with World AIDS Day, which marks a pandemic that in 2011 claimed 1.7 million lives and led to 2.5 million new HIV infections, according to the latest UN figures.

The number of people living with HIV rose slightly last year to 34 million, up from 33.5 million in 2010, according to UNAIDS.

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