

Five-Year Outcomes of the China National Free Antiretroviral Treatment Program

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The full report is titled “Five-Year Outcomes of the China National Free Antiretroviral Treatment Program.” It is in the 18 August 2009 issue of *Annals of Internal Medicine* (volume 151, pages 241-251). The authors are F. Zhang, Z. Dou, Y. Ma, Y. Zhao, Z. Liu, M. Bulterys, and R.Y. Chen.

What is the problem and what is known about it so far?

HIV is the cause of AIDS. AIDS is a potentially deadly illness that interferes with the body’s ability to fight infection and certain types of cancer. Treatments that contain several drugs (called *highly active antiretroviral therapy* [HAART]) have greatly improved outcomes for HIV-infected patients. This therapy is expensive and can be difficult to provide to the patients who need it, particularly in developing countries. In 2002, China began a program to provide free HAART to patients who met the national criteria for treatment. Most studies of the outcomes of programs that provide HAART in developing countries have been of short duration (1 year), and whether the benefits seen early in the programs continue over time is less clear.

Why did the researchers do this particular study?

To see how patients were doing in China’s National Free Antiretroviral Treatment Program after 5 years.

Who was studied?

48,785 patients who were enrolled in the program.

How was the study done?

The researchers collected information on patient deaths and CD4 cell counts over 5 years. Doctors use blood tests called CD4 cell counts to monitor patients with HIV infection. The CD4 cell count decreases as the disease gets worse, so low CD4 cell counts are bad. One measure of HAART failure is that CD4 cell counts drop even though the patient is receiving treatment. This can happen because the virus becomes resistant to certain drugs over time. Resistance means that the drug is no longer effective against the virus.

What did the researchers find?

After about 6 months of treatment, death rates decreased to levels similar to those seen in HIV-infected patients who receive HAART in other developing countries. The death rates stayed at this low level through year 5. Unfortunately, about one half of patients had CD4 cell counts that suggested treatment failure after 5 years.

What were the limitations of the study?

The study was only 5 years long, and CD4 cell count is not the best way to measure treatment failure.

What are the implications of the study?

China’s National Free Antiretroviral Therapy Program reduced death rates among HIV-infected patients to levels similar to those of other developing countries. However, treatment failure was common in the program and may be due to the limited number of drug choices. This means that once resistance developed, patients had few options for other drugs they could take.

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