

## Study confirms effectiveness of antiretroviral drugs for HIV patients

An international team of researchers looking at more than 7700 HIV patients undergoing combination therapy with antiretroviral (ARV) drugs has reported an increase in survival rates and a significantly reduced risk of progression to full-blown AIDS.

“Predicted survival for people with HIV-1 has continued to increase, since the introduction of HAART [highly active antiretroviral therapy],” say the authors — a collaborative team funded largely through a grant from the European Union. The study found that compared with pre-1997 data — when ARVs were first introduced to curb viral replication — the hazard ratio for death fell sharply to 0.47 (95% confidence interval (CI) = 0.39–0.56) in 1997, dropping further to 0.16 (CI = 0.12–0.22) in 2001. The authors also said that, compared with pre-1997 data, the hazard ratio of disease progression was 0.46 (CI = 0.38–0.55) in 1997, falling to 0.13 (CI = 0.09–0.21) by 2001.

“The study shows that ARVs are among the most effective health care interventions. When you compare them, for instance, to anticancer drugs or to anti-hypertensives, ARVs are orders of magnitude better,” said Dr Jos Perriens of the World Health Organization’s HIV/AIDS department. The study, published in the *Lancet*, (2003;362:1267-74), compared disease progression and death rates in the period prior to 1997 to the period between 1999 and 2001, when ARVs were widely available to most, if not all, HIV patients in high-income countries.

The study’s results, based solely on HIV-positive cohorts in Europe, Australia and Canada, show that ARVs prolong the lives of HIV patients in industrialized countries where hospitals are well equipped with state-of-the-art laboratory facilities. However, numerous small-scale pilot projects run by UNAIDS, a French initiative called the International Therapeutic Solidarity Fund (FSTI) and nongovernmental organizations such as Médecins Sans Frontières — as well as the Brazilian national AIDS programme — have since demonstrated the feasibility of ARV treatment even in resource-poor settings.

“In terms of patient compliance and survival rates, ARVs do indeed work extremely well in developing countries – even when compared to best practise in the industrialized world,” said Peter Graaff of WHO’s Essential Drugs and Medicines Policy (EDM) who also added that their therapeutic effectiveness was the reason for EDM’s move to include ARVs on WHO’s model list of essential drugs last April.

“You don’t need sophisticated lab infrastructure to initiate successful first-line treatment,” confirmed Perriens who added that in Malawi and South Africa, for example, AIDS-related mortality rates have dropped from more than 50 per cent to around 10 per cent per year.

“Treatment adherence in programmes in Malawi, Uganda and South Africa was at least as good – if not better – than in the US and other industrialized countries.”

According to WHO, successful application of ARV therapy in developing countries depends on keeping the drug regimen as simple as possible by limiting the choice of drugs for first-line treatment. “Therefore, health workers delivering the ARVs need to know the side effects of only three instead of fifteen drugs. This makes it a lot easier to screen many more people,” said Perriens.

Of the estimated 42 million people infected with HIV, only about 1.5 million live in high-income countries and most of these are already receiving ARV treatment. In developing countries, however, only 300 000 patients — most of them in Brazil — currently benefit from ARVs. At the current rate of delivery, less than one million people will have access to ARVs by the end of 2005. The failure to deliver ARVs to developing countries was declared a global health emergency in the September by WHO and prompted the launch of WHO’s 3-by-5 strategy which aims to have 3 million people in the developing world on ARV treatment by 2005.

In developing countries, the price of ARV treatment has now fallen from US\$ 10 000 per patient per year to less than US\$ 300. In late October, the William J. Clinton Foundation struck a deal with four generic manufacturers to supply several African and Caribbean countries with first-line ARVs for US\$ 132 per patient per year. “Whilst this is a welcome development,” said Perriens, “in many countries people live on only US\$ 1 a day; so even US\$ 100 per year would still be out of their reach.

This signals the need for strong commitment from the international community to the HIV treatment agenda.” ■

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