

**Feature** 

## Non-adherence: The Achilles heel of multiple-drug therapies



Doctors and PLWHAs must work together to find a window of opportunity during which complicated drug regimens can be best adhered to. Jean-Patrick Di Silvestro

## High costs, logistics hamper adherence in South

M illions of PLWHAs around runs out and there may not be another follow-up shipment. no access to antiretroviral therapy. Even drugs to treat opportunistic infections are scarce. If the global AIDS community succeeds in changing this situation, adherence to medication regimens will become a growing focus of attention for the South.

The high cost of drugs and unsteady supply are two major hurdles to adherence in Africa, says Godfrey Sikipa, a Nairobi-based regional director of the NGO, Family Health International. Since public health agencies in Africa rarely have a large stock of drugs, especially antiretrovirals, the small number of PLWHAs using them "are getting them through private importation." Often, friends or relatives ship drugs home from industrialised countries. But after a few months, the supply

For PLWHAs buying antiretrovirals privately, "the majority can't afford to take the prescribed regimen for any length of time, largely because of the cost," says Sikipa.

Tougher living conditions also makes adherence a bigger burden for PLWHAs in Africa than for those in the North. "It's just the general atmosphere. People are struggling with the day-to-day necessities of life. They may find taking drugs a bit more difficult. There may not even be fresh water for them to take their pills, as when the water supply is turned off. Or, late at night you have to take a tablet but the lights have gone off." Lack of home refrigeration is also a key problem.

He adds that the strength of African extended families, and the support they provide, could make a difference.

Praphan Phanuphak, a Thai physician and director of the Thai Red Cross Research Centre, echoes Sikipa's comments about the high cost of drugs and consistent supply. In Thailand, the majority of PLWHAs do not have access to antiretrovirals. Government employees are, in theory, eligible for treatment with AZT, ddI, and ddC. Yet, in practice, says Phanuphak, hospitals do not stock such drugs, mainly because of the high cost but also because they would end up having to refuse so many requests.

Lacking the necessary funds, some people end up cutting down the prescribed doses to stretch out their supply. Phanuphak says this adherence problem has gotten worse in recent months with the deterioration in Thailand's economy.

The therapeutic potency of new The therapeutic potential triple-drug combinations captured much of the spotlight at the Vancouver AIDS conference in 1996. Since then, though, the enormous difficulty that PLWHAs have had in adhering to complex drug regimens has emerged as a major threat. Some are calling it the "Achilles heel" of otherwise encouraging advances in therapy.

One person trying to bring greater global attention to the adherence issue is Margaret Chesney, professor of medicine at the University of California at San Francisco and co-director of the Center for AIDS Prevention Studies. "This problem needs to be put on the international agenda, side by side with actual drug development and distribution."

Two major factors need to be emphasised with medication adherence, says Chesney. "One is the welfare of the patient. Drugs can't work if people don't take them as prescribed. Second - and this is often overlooked – is the public health issue. Non-adherence can result in the emergence of drug-resistant strains. Once this happens, a person can transmit that version of the virus to an uninfected person."

Chesney was co-investigator on a recent study that reported a man had become infected with a strain of HIV resistant to six of the 11 approved antiretroviral drugs, including four protease inhibitors. "This study shows that we can do more harm than good if we don't help patients take their medications correctly," says Chesney.

Julio S.G. Montaner, national codirector of the Canadian HIV Trials Network and professor of medicine at the University of British Columbia in Canada, has a similar message. Apart from the inherent ability of drug cocktails to raise CD4 counts and cut viral loads to below detectable levels, "the single most important determinant of the treatment's success is the ability to take medications as prescribed - not a small challenge. The main point is that the treatments are cumbersome and the priority should be to simplify them.'