

# Anti Retroviral Therapy (ART) for advanced AIDS

## What is Anti Retroviral Therapy (ART)

This is a combination of special medicines called anti retrovirals (ARVs). The use of these ARVs is referred to as anti retroviral therapy (ART). ARVs are taken by an AIDS patient to reduce the amount of HIV, the virus that causes AIDS, in the body. ART is given by a special health care team, which includes a doctor, counsellors, a nurse, family and/or other treatment supporters identified by the patient.

### ARV treatment aims to achieve the following objectives:

1. To cause a sustained suppression of HIV multiplication and hence reduction in the amount of virus in the body.
2. To restore the body's ability to fight infections (immunity), improve quality of life and prolong life.
3. ARVs can also be used to prevent transmission after exposure to HIV. This is referred to as post exposure prophylaxis (PEP).
4. ARVs are used in the prevention of mother to child HIV transmission (PMTCT).

The use of ARVs for PEP and PMTCT is covered in detail in separate fact sheets (D and E). The rest of this paper will focus on use of ART for treatment of advanced HIV/AIDS.

## The impact of ART on AIDS care

Before the availability of ART, HIV/AIDS patients had little hope for long survival. Most of those infected died within 10 years of infection. The availability of ART means makes it possible for AIDS patients to be kept alive, just like those who suffer from other long-term illnesses such as high blood pressure and diabetes. Therefore ART allows for improved quality and longevity of life, leading to continued social and economic productivity. Therefore ART provides the opportunity to counter the adverse socio-economic effects of AIDS that are currently devastating most of Africa, such as numerous orphans and shrinking numbers of national workforces, ranging from agricultural labourers, teachers, health workers, and highly skilled specialists.

## How does ARV therapy work?

ARV therapy slows down the multiplication of HIV in the body allowing one to live a healthier and more productive life. If taken according to the doctor's instructions, ARVs will help the body become stronger. This will result in fewer episodes of diseases that take advantage of the weakened immune system (*opportunistic infections*), and this helps the infected person a live longer and healthier. Successful treatment with ARV drugs shows results of improvement within weeks.

- In South Africa, HAART reduced the incidence of HIV-associated TB by more than 80%
- A young lady in Haiti-Adelaide contracted HIV far from home, in Port au-Prince, when she was only 18 years old. She attended the clinic just a few years later when she had an episode of pneumonia. The additional diagnosis of herpes zoster and HIV infection resulted in treatment of opportunistic infections for almost 10 years. By 1999, her chronic diarrhoea no longer responded to the treatment, and her weight had dropped to 36kg. But within the first weeks of treatment with ART she gained 12kg.

### **ARV therapy is not a cure for HIV/AIDS:**

When one embarks on the use of ARV therapy they start feeling better but this is **not** a cure for HIV/AIDS, because ART does not completely eliminate the virus from the body. It only reduces the amount of the virus, allowing the patient to feel healthier. HIV will start to multiply rapidly if the ARVs are discontinued or not taken in their full combinations and dosages. Therefore, people on treatment need to adhere to their treatment and live responsibly, to avoid transmission to others. This includes use of a condom whenever having sex and the avoidance of donating blood or body organs.

### **Who and when to start ART**

ARV therapy is given to people who are HIV positive and have advanced AIDS disease. Patients only need to start ART when there is evidence of significant immune system damage. Starting of ARV treatment earlier is not justified because the drugs have side effects, and there would be a higher risk of the virus becoming resistant to the ARVs. The start of ART is NOT advisable if the patient is not fully informed and motivated, to take the medicine according to the instructions. Therefore ART requires intensive counselling, uninterrupted supply of ARVs, close patient monitoring for response to the medicine and side effects. All these require access to a facility where the staff and supplies are available to ensure the above.

### **ARV therapy is for life**

Once one begins ARV therapy, he or she needs to continue with it for the rest of their life. It is extremely important to understand that if a person stops taking his/her medicines, even for a short while, the medicines may no longer work, as this interruption allows the virus to become resistant to the medicine. ARV therapy will become a very important part of one's life- there is need to commit to the therapy, and in return, one will be able to live a healthier and often normal life. Counselling prepares the patient in these respects.

### **ARV therapy must be supported to work effectively**

By living a healthy and positive lifestyle, People living with HIV/AIDS (PLWHA) can strengthen their body, helping it to fight the virus. One needs, good nutrition e.g. energy giving foods, body building foods (proteins), and vitamin-rich foods that protect one from infection. It's important to keep physically active and busy as this keeps the body healthier and allows one to remain socially and economically productive. Taking plenty of rest, using clean water, and proper hygiene are also important.

### **Adherence is important**

The patient on ART is required to take the prescribed drugs in the right doses and at the correct times of the day, for the rest of their life. This is what is referred to as adherence, and it needs to be sustained for successful ART. ARV therapy will work best if the person listens to the advice of the healthcare team. It is also up to the patient to work in partnership with the treatment team to make sure ARV therapy works for him or her. In addition, he or she must not share their drugs with anyone, such as other infected members of the household. Rather, each patient should be individually assessed and if eligible for ART, take their own prescribed drugs.

Adherence to medications is difficult and some patients in every setting may have trouble taking 100% of their pills. However, there is now evidence that patients in poorer countries can adhere to their treatment, as shown by the figures from various studies below:

#### **Adherence to treatment in resource -limited settings**

- Uganda: 88%
- Cote d'Ivoire. 75%
- Haiti: 88%
- Senegal: 78%, 42%, 88%
- South Africa: 89%
- Brazil: 57%, 87%, 69%
- Botswana: 54%, 53%, 58%
- Nigeria: 58%
- Kenya: 59%

### **Monitoring for the side effects of ARV therapy**

Despite their immense benefits, like all medicines, ARVs have their side effects. Some of the side effects of some of the drugs include painful stomach, nausea and vomiting, diarrhea, skin rash, headaches, excessive tiredness, sleep disturbances etc. Usually these side effects appear in the first weeks of starting treatment but the individual stabilizes as he continues to use the treatment. The team of care providers provides monitoring of the patient and in the event of severe side effects they may recommend substitution of the offending drug.

### **The cost of ART**

ARVs are some of the most expensive drugs in use. The first line regimens are cheaper, and currently can cost as little as US \$ 200 dollars a year for each patient. However, there are other costs for monitoring costs, and transportation to and from health facilities. Fortunately for Sudan, the Global Fund has approved two grants for the country, under which it is possible for ARVs to be provided free of charge. However, it is important that national resources are increased to support ART, for longer term sustainability, since patients have to be on the medication for the rest of their lives.

### **ART IN SUDAN**

As of the end of March 2006, trained staff and ARVs were in place in 10 locations in Sudan. These include Bashair and Omdurman Teaching hospitals in Khartoum, as well as the teaching hospitals in Kassala, Gedaref, Kadugli, Portsudan, Medani, El Obeid, Nyala in the North. In the South, the services are already functional in Juba and Wau, and are expected to start in Malakal in by the end of April 2006.

At these locations ARVs are provided free of charge. These services have been made possible through the support of several partners including the Sudan national AIDS program, WHO, The Global Fund and NGOs.

Over the next six months, ART will also be made available in Blue Nile, White Nile, and North Darfur states, at locations yet to be determined.

### **Recommendations for making ARV's more widely available in Sudan**

- Communities need to avoid mistreatment and discrimination against people infected with HIV. Stigma and discrimination make it difficult for AIDS patients to utilise available treatment as well as for uninfected patients to utilise and benefit from preventive services such as counselling and testing.
- Resources need to be secured to ensure that those patients started on ARVs have a reliable supply of these drugs. This calls for increased and sustained resource allocation by governments, the private and NGO sectors, as well as donor agencies.
- More staff need to be trained and motivated to ensure that patients are well informed and motivated to adhere to their treatment. Treatment should not be rushed without prior counselling of the patient. This is to ensure patient cooperation for adherence to treatment.
- Systems need to be put in place to ensure efficient procurement and distribution of ARVs and other supplies needed for ART.
- The public needs to be educated to avoid risky behaviour, even though ART may be available. This is important because ARVs do not cure HIV/AIDS, and the burden of providing ART to increasing numbers of patients can so strain the health services that other services suffer.