

# PROVIDING ANTIRETROVIRAL THERAPY IN RURAL AREAS: ACUTE OR CHRONIC CARE?

## *Is HIV an acute or a chronic disease?*

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I was working at a busy rural clinic in the Eastern Cape. My next patient entered the consulting room. She walked slowly, although she was only in her early 30s. I could see her chest heaving from the exertion of entering the room. She sank down into the chair and turned her large eyes towards me, eyes filled with tiredness, desperation and, perhaps, fear? Slowly her story emerged.

She had been living in Johannesburg for the last few years, doing temporary work. During this time she was tested for HIV and found to be HIV positive. She was started on antiretroviral therapy, apparently doing well on treatment. It is unclear why she left Johannesburg to return to the rural Eastern Cape. She came back to her mom and sister – now over a year ago. Slowly her health began to deteriorate. She had not told her family her diagnosis, or continued with any of her treatment. As her health worsened, her family became more concerned, and consulted a number of traditional healers and special doctors. Now she arrived here.

## *Why did she not present to a clinic when her antiretroviral therapy had run out?*

She was pyrexial, pale, tachypnoeic and tachycardic with a large, right cervical lymph node. Aspiration of the node revealed a caseous-type material. In the following few days she was seen a number of times, with a haemoglobin level of 7 g/dl, pus AFB +++, and a CD4 count of 47.

I experienced a number of emotions over the following few days ... relief that she had finally presented to a health facility and we could start her on treatment, and sadness at how ill she was and how upset her family were when she told them her diagnosis. I also felt frustrated that a previously well individual on antiretroviral therapy could deteriorate so much. Why had she not asked for a transfer letter to collect her antiretroviral therapy in the Eastern Cape? Why did she not present to a clinic when her antiretroviral therapy had run out?

## **Is HIV an acute or a chronic disease?**

What is more important: To put a client on antiretroviral therapy, or to ensure that the client remains on antiretroviral therapy for the next 10 or 20 years? Our health system has been operating in crisis mode for many years. Generally, health care providers are good acute care practitioners, but in the public sector there is possibly a general lack of experience and expertise in managing chronic conditions. On a daily basis we see patients with stab wounds, children with life-threatening dehydration, adults with severe disseminated tuberculosis ... the list

goes on. Once a person is stable they move off the 'acute radar' and may become lost to the overstretched rural doctor (or overstretched primary health care doctor). It is vitally important to initiate antiretroviral therapy. However, it is equally important to ensure that the client remains on treatment for the rest of his/her life.

A client with HIV often presents with an acute, life-threatening condition, to which a number of factors have contributed. There has been a shortage of doctors, nurses and other health care practitioners in the public sector, especially in rural areas. Patients often do not get seen by a doctor until they are critically ill. They often present late, because of poor access to health facilities, lack of information about clinical conditions, stigma and first seeking alternative therapies. For many years there was a lack of political will to highlight the importance of early testing for HIV and poor roll-out of antiretroviral therapy country-wide. Therefore, health care practitioners are kept busy with severely ill patients, presenting with stage 3 or stage 4 conditions. There is a sense of urgency to start life-saving antiretroviral therapy.

In many institutions antiretroviral therapy has been provided by NGOs, who have received donor funding from different organisations. Until recently, the majority of NGOs received funding for antiretroviral drugs and the administrative needs of the organisation. In certain peri-urban and urban areas there has been competition between different NGOs to provide treatment to a given population. Perhaps, in some instances, less consideration was given to the long-term implications of someone receiving antiretroviral therapy when presenting with an acute illness and a low CD4 count. Health facilities would initiate antiretroviral therapy, but may not have taken into account the long-term implications for someone who has to travel to a particular health facility monthly to access treatment. Although many clients present to health facilities with an acute HIV-related condition, there is an increasing need for HIV to be viewed as a chronic disease, which has many long-term considerations.



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### Dangers of vertical primary care programmes

HIV testing has attracted much media attention. In April 2010 the Minister of Health announced a massive HIV testing campaign, appealing to business and the private sector to assist with scaling up testing. As the testing has increased so has the need to increase the number of antiretroviral sites. HIV testing has been done by outreach teams, by visiting schools and rural communities and at business level in towns. Often a client is tested for HIV away from their home or community, which makes disclosure issues difficult. A client may be referred to a nearby health facility for further blood tests (e.g. CD4 count) and may be lost to follow-up. A client may be started on antiretroviral therapy at a health facility after an acute illness, but may find that it is too far from home for regular visits and consequently may default from treatment.

### Our health system has been operating in crisis mode for many years.

Primary health care differs considerably in different parts of South Africa. In certain areas there is good integration of the various programmes, while in others there is fragmentation and poor co-ordination. The HIV programme often falls prey to this lack of co-ordination. A client may be tested for HIV at one facility, but has to be referred to another institution for antiretroviral therapy. Facility X and facility Z may not communicate well with each other. A client may receive antiretroviral therapy from facility Z and anti-epileptic and hypertensive treatment from facility X. If the client mentions their other treatment or a health care worker enquires about it, the other treatment may be recorded. But the worst case scenario is one where a client visits two facilities every month and receives medication from each facility. This may result in unnecessary drug prescription or drug interactions.

Lack of integration has occurred in the PMTCT programme, where a woman may receive her antenatal care from one facility, but accesses her antiretroviral therapy from another. Once her baby has delivered she may default from her antiretroviral therapy as it is too difficult and costly to travel every

month. Her local clinic may not realise that this has happened.

### Need for a chronic care model for antiretroviral therapy

At the annual RuDASA conference held in Swaziland in 2010 a number of different models were presented for the integration of antiretroviral therapy into primary health care clinics. Médecins sans Frontières (MSF) has traditionally worked in emergency care, but through their HIV programmes MSF has had to develop new ways of providing chronic care.

In Malawi, HIV care was used to strengthen all of primary health care. Dr Kelvin Phiri described how health posts were upgraded to an improved health post, which provided family planning services, antenatal care, TB monitoring, HIV testing, WHO staging, management of opportunistic infections and antiretroviral refills. These health posts were situated within 10 km of the population and served approximately 5 000 - 15 000 people. In this way defaulters were traced, individual and group support was provided, and treatment literacy was given.

Dr Eric Goemaere described a chronic care model used in some of the Khayelitsha clinics in the Western Cape. In these clinics it was found that more intensive clinical screening occurred immediately before a client started antiretroviral therapy and in the first few months after commencement of treatment, where opportunistic infections and drug side-effects were monitored. This component then decreased once a client was stable on treatment. Likewise, the drug refill component also decreased with time as there was less need for intensive pill counting once a client was stable. However, the component that increased with time was the psychosocial support required to motivate adherence and to provide support for different life events.

Therefore, community clubs were established, consisting of 20 - 30 people from the same community. The criteria for these clubs were two viral load (VL) results that were suppressed and a CD4 count >250. These clubs are managed by lay counsellors, provide peer support, provide 2 - 3-month drug refills and encourage accountability within the group. If a person misses a drug

refill, the lay counsellor and others in the group find the client and are then able to improve adherence. This also reduces the clinical load at the health facility or clinic. These stable clients are able to continue to receive their medication without coming to the health facility and to continue their employment without missing work days. Each community club decides how to meet, which allows for flexibility for the participants. In Mozambique a similar model was introduced into a number of clinics where MSF was providing support. They found that only 0.2% of clients were lost to follow-up when using community clubs. Likewise, our health facilities need to develop a chronic care model acceptable to the health facility and community.

### Starting antiretroviral therapy is generally not a medical emergency.

#### Basic principles

Starting antiretroviral therapy is generally not a medical emergency. As rural health practitioners it is vital that we consider where a person lives and how they will continue to access therapy. It would be better for the person to have treatment initiated at the nearest clinic. With the expanded antiretroviral programme there are an increasing number of clinics accredited to provide treatment. There may not be a full-time doctor at the clinic; it may be run by nurse practitioners. Doctors need to entrust their clients to the local site and provide whatever support they might need for continued caring, e.g. a detailed clinical history, explanations of why particular drugs were used, or suggestions for other future blood tests. A phone number is useful for queries. It is not helpful to consider your client 'too sick' to be sent to another site, and so continue to insist that the client travels for their monthly antiretroviral treatment.

Continuity is vital to ongoing chronic care. This means that we need to ensure minimal staff turnover at clinic sites. In rural areas this is especially challenging as new nurses are often waiting for another post closer to town or at a hospital. Ongoing support needs to be provided to health care workers in remote areas to ensure that they want to stay at their site. Human resource development should be

actively recruiting eligible candidates from the local community to study health-related occupations.

'One stop shops': A person attending a primary health care facility needs to be able to access all their medication at the same time for a holistic assessment to be made and possible drug interactions to be monitored. Blood tests need to be co-ordinated so that all relevant blood monitoring is done at the same time – saving time, money and pain! (HbA<sub>1c</sub>, VL, CD4 count, etc.)

Clients need to be encouraged to return to normal life activities ... planting their fields, weaving baskets, other informal sector activities, repairing homesteads or full-time formal employment. Allowance needs to be made to collect medication and attend clinics so that these normal activities are not compromised. Children should be encouraged to return to school and clinic reviews scheduled appropriately after school hours or during school holidays to ensure that they are not further stigmatised by missing classes.

Support and peer groups are to be encouraged to provide the foundation for

ongoing adherence to treatment. Within these groups life events are discussed and support is provided with regard to changes in relationships and disclosure issues, desire for more children, death of a loved one, HIV-positive children and disclosure. It is essential to view a client with HIV as being a member of a family and community. For life-long antiretroviral therapy we need to understand these social issues much in the same way as we know about the side-effects of the drugs we are prescribing. Doctors may lack time or knowledge with regard to these other matters, so we need to engage with those in our clinical team who are able to assist. In most rural areas there are active community health care workers who can play a valuable role in the health team. These health care workers need to be acknowledged and supported in the role that they play.

There is tremendous scope for creativity and innovation in how we motivate and encourage our health teams. Chronic care at primary health care level is often neglected and poorly monitored. The expansion of the antiretroviral programme provides an ideal platform to improve the care of all chronic diseases at our health facilities, including monitoring of all clients with different

conditions and providing psychosocial support and counselling to all clients with regard to treatment literacy and the need for adherence.

The World Health Report (2006) argues that increased community participation is needed to assist reviving the primary health care crisis that has developed in many countries. Perhaps this is our chance ...

Further reading available at [www.cmej.org.za](http://www.cmej.org.za)

## IN A NUTSHELL

- Acute care tends to take precedence over chronic care.
- This has meant that HIV is often only treated when the patient is sick enough to be an emergency case.
- Primary health care is often fragmented.
- Patients may receive antiretroviral treatment from one facility and their other chronic medications from another.
- Patients may live too far from a clinic to return regularly, or after testing, and so are lost to follow-up.
- Programmes are being developed to provide adequate chronic care in rural and primary health care settings, which include the use of nurse practitioners.

## SINGLE SUTURE

### *Coffee and aspirin combo knock hangover on the head*

Heavy drinkers might cure their hangover with a cup of coffee and a painkiller – at least if the chemical acetate is the cause of that pounding headache.

Michael Oshinsky at Thomas Jefferson University in Philadelphia, Pennsylvania, and colleagues tested the effect of low doses of ethanol – about the equivalent of a single drink – on rats prone to migraines. Because low doses of alcohol typically cause headaches in migraine sufferers, this allowed them to study an alcohol-induced headache without the complication of intoxication. Sure enough, 4 - 6 hours after imbibing, the skin around the rats' eyes became sensitive to touch, a sign that they had a headache.

None of the commonly cited causes of hangovers could have caused this response, says Oshinsky. The rats were not dehydrated and they received pure ethanol.

*New Scientist*, 12 January 2011.



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