

HIV Nursing matters

A Magazine of the Southern African HIV Clinicians Society



What Happens when someone fails their first ART Regimen
Grief and Bereavement in HIV
Writing Skills Workshop for Nurses

December 2013 Volume 4 No. 4





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HIV Nursing matters

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What happen when someone fails their first ART REGIMEN?

Grief and bereavement in HIV

Writing skills workshop

guest editorial



By Dr Nomkhosi Penelope Mavuso

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Drug-resistant tuberculosis (TB) is a critical threat to TB control and global public health. Nowhere is this threat more pressing than in South Africa, where drug-resistant TB and HIV have converged in a deadly syndemic defined by increased incidences of TB and HIV, endemic transmission of drug-resistant TB strains, high mortality rates, and poor treatment outcomes. The most drug-resistant form of TB, extensively drug-resistant tuberculosis (XDR-TB) has been reported in 70 countries and comprises an increasing proportion of drug-resistant TB cases. In South Africa, which diagnosed about 15,400 MDR-TB cases last year, MDR-TB treatment gaps are widening as access to testing increases.

South Africa is amongst the highest burdened TB and MDR-TB countries worldwide. The combination of a large population of HIV-infected susceptible hosts with poor TB treatment success rates, a lack of airborne infection control, limited drug-resistance testing, and an overburdened MDR-TB treatment program provides ideal conditions for an MDR-TB and XDR-TB epidemic of

unparalleled magnitude..

- In 2010 South Africa diagnosed: 7 386 MDR-TB patients (5313 started on treatment) and 741 XDR-TB diagnosed, with 615 started on treatment.
- The current cure rate of MDR-TB treatment in South Africa is low: 42% (2007 cohort), 48 % (2008 cohort)

To address this problem, we need to understand the following:

1. How does TB become resistant?
2. Why is MDR-TB more dangerous?

Tuberculosis can become resistant if a patient is not treated long enough, doesn't take prescribed medications properly, or doesn't receive the right drugs.

In addition to the increased difficulty in treating the disease, the patient remains infectious longer, increasing the risk to the public and to healthcare workers.

MDR-TB also appears in patients with TB and HIV co infection and AIDS, further compromising the health and the immune system of these patients. HIV itself does not increase the chance of drug resistance. HIV does increase the risk of progression of latent TB infection into active TB disease.

MDR-TB can cause death within weeks in people with HIV/AIDS.

The most important way to prevent the spread of drug-resistant TB is to take all TB drugs exactly as prescribed by the healthcare provider. No doses should be missed and treatment should not be stopped early. People receiving treatment for TB disease should tell their healthcare provider if they are having trouble taking the drugs.

Healthcare providers can help prevent drug-resistant TB by quickly diagnosing cases, following recommended treatment guidelines, monitoring patients' response to treatment, and making sure therapy is completed.

Another way to prevent getting drug-resistant TB is to avoid exposure to known drug-resistant TB patients in closed or crowded places such as hospitals, prisons, or homeless shelters. People who work in hospitals or healthcare settings where TB patients are likely to be seen should consult infection control or occupational health experts.

In this issue we discuss the challenges of ARV and TB drug resistance: a problem that healthcare workers are facing at all levels of HIV and TB management more commonly than previously. Yet addressing this challenge is not as straight forward as one would anticipate. Firstly, we need to address the root causes that give rise to drug resistance, the risk factors and the basic approach to patients found to have drug resistance. Too many TB and HIV-infected patients in South Africa are dying due to the difficulty in diagnosing and managing TB and antiretroviral treatment (ART) failure in resource -limited settings

At the clinical level, it is known that

The topics discussed in this month's issue indeed evoke thought provoking debates and probe healthcare workers in the field to analyse their respective circumstances with the aim of aligning their work with current and relevant practices in an effort to curb this complicated epidemic.

response to HAART is often poorer in patients with advanced disease, who are treatment-experienced, and those with a high baseline viral load and suboptimal drug adherence. In addition, treatment efficacy is usually lower in the real world than in clinical trials where supervision is more intense. Highly active antiretroviral therapy (HAART) is designed with a view to long-term success. However, this is never guaranteed. For a variety of reasons, treatment fails and has to be modified or even totally changed. Drug resistance is one of the most important causes and also the most difficult to manage. All treatment failure has to be taken very seriously and immediately evaluated by experienced HIV clinicians.

So then the question posed is 'Why do patients fail TB and/or ARV therapy'? We pay particular attention to children on ART that are failing treatment.

The causes of virologic treatment failure, which include poor adherence, drug resistance, poor absorption of medications, inadequate dosing, and drug-drug interactions, should be assessed and addressed.

When deciding how to treat a child with virologic treatment failure, the probability of achieving durable virologic suppression should be considered, as well as the future options for treatment, should durable suppression not be achieved?

Once the potential causes of virologic treatment failure have been identified and addressed, the child should be assessed to determine whether a change in antiretroviral (ARV) drug regimen is necessary and advisable. This will depend on the urgency and likelihood of achieving and sustaining an undetectable plasma viral load. The urgency of implementing a more effective treatment regimen depends on a child's immunologic status, with the greatest urgency in patients with clinical disease progression or clinical failure. The likelihood of achieving and maintaining undetectable plasma viral load depends on the


extent of drug resistance, the number and quality of available agents that are active against the child's virus, and the likelihood of adherence to the new regimen. If poor adherence has been a major contributor to virologic treatment failure, and factors contributing to poor adherence have not been adequately addressed, changing the ARV drug regimen may not be advisable, because it is not likely to result in virologic suppression and is likely to promote accumulation of additional drug resistance mutations.

South Africa's HIV epidemic has had a devastating effect on children. The age bracket that HIV most heavily targets - younger adults - means it is not uncommon for one or more parents to die from AIDS while their children are young. The number of premature deaths due to HIV/AIDS has risen significantly over the last decade from 39 percent to 75 percent in 2010/11. The loss of a parent not only has an immense emotional impact on children, but for most families can spell financial hardship. One survey on the impact of HIV on households found that "80 percent of the sample would lose more than half their per capita income with the death of the highest income earner, suggesting a lingering and debilitating shock of death." It is estimated that there are 1.9 million children orphaned by HIV/AIDS, where one or both parents have died in South Africa, and that the HIV epidemic is responsible for half of the country's orphans

At some point in our life most of us will suffer the death of someone we love. Yet in our everyday life we think and talk about death very little. Grieving takes place after any sort of loss, but most powerfully after the death of someone we love. It is not just one feeling, but rather is a host of feelings, which can take a time to get through. Although each and every one of us is unique, the order in which we experience these feelings is similar for most of us.

In this month's issue, Shenaaz Pahad takes us through grief and bereavement in HIV.

The topics discussed in this month's issue indeed evoke thought provoking debates and probe healthcare workers in the field to analyse their respective circumstances with the aim of aligning their work with current and relevant practices in an effort to curb this complicated epidemic. Indeed it is easy to perceive the tasks at hand and ahead as overwhelming in light of current data reports and research findings, but again one remains motivated with every patient discharged in good health.

As healthcare workers we need to engage and find solutions in an effort to improve the service that we provide. 

On a personal note I would like to salute every healthcare worker who is active in the fight against HIV/AIDS and tuberculosis.

The care you give to one is felt amongst hundreds; the hand you offer is indeed grabbed by even those that you may not see. May you remain as dedicated and selfless in your work, may your territories expand and your names be forever written in the hearts of those that you care for in your line of duty. May we never however neglect our own health and safety in the workplace; let the message we preach to our clients be that which we practice. Let us take care of ourselves and live to see the fruit of our labour.

To quote Mother Teresa of Calcutta "I have come to realise more and more that the greatest disease and the greatest suffering is to be unwanted, unloved, uncared for, to be shunned by everybody, to be nobody to no one".

Message from the president



Message from the President
Dr Francesca Conradie
President Southern African
HIV Clinicians Society



at report@stockouts.co.za. We will treat your reports as confidential and will assist in sorting out the problems. We report all of them to the National Department of Health.

As we know, drug interruptions can cause failure of the regimen with development of resistance. In this edition, we aim to help you identify patients who may develop resistance. You will learn how to manage such patients. So please enjoy this edition as your end of year reading. There is still much to do.

Finally, please remember that we are holding the second Southern African HIV Clinicians Society conference next year on the 24th September. Start to plan to be there. The first one was a success and the second will be even better. [®]

Dr Aaron Motsoaledi has put stock outs on the top of the agenda and is working very hard to make sure that no patient ever goes home without any medication

The end of the year is approaching. And I think that it has been a good year in many ways. Every day, we are adding to number of patients on ART. We have seen an increase in the life expectancy throughout Southern Africa. Mother to child transmission of HIV is decreasing and there are some signs we are winning the battle on TB.

However, our program has been plagued with stock outs of both ARVs and TB medications. The consequences of these will be felt in the years to come. But once again, our minister of Health has risen to the occasion. Dr Aaron Motsoaledi has put stock outs on the top of the agenda and is working very hard to make sure that no patient ever goes home without any medication. We would urge you to report any stock outs in your facility. You can report it on our site: <http://www.sahivsoc.org/stock-outs>. You can call in 084 855 STOP or send an sms, please call me or even a WhatsApp. You can email us the details

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Professor Francois Venter on ARV Stock Outs

Posted in ARV Stock Outs

South Africa has made astonishing gains in terms of the number of people that need antiretrovirals, and getting them, and the expansion of PMTCT has made paediatric HIV rates drop dramatically. In addition, we have probably the largest condom distribution programme in the world, an increase in male circumcision, and some encouraging data on HIV and TB incidence and an increase in life expectancy. We have politicians who seem to take HIV seriously, and a treasury that largely funds the programme.

It is, however, tragic that the biggest threat to our HIV programme and perhaps to our health system overall, is now the inconsistent delivery of medication. It is especially tragic, as this is the part of the HIV cascade of care that is traditionally a relatively small contributor to loss to follow up – now the system failure is contributing to making this challenge even worse.

We have drug stock outs reported from across the country, from every single province. These have gotten steadily worse over the last 10 years, but have been particularly severe in the last 2 years. The stock outs also extend beyond antiretrovirals, with TB, diabetic and antihypertensive medications affected, along with commonly used antibiotics like ceftriaxone and cotrimoxazole. It's clear that cost is rarely the issue – and it is next to impossible to work out where the fault lies, because when you enquire, it's an endless string of finger-pointing. My sense is that the

provinces outside of the Western Cape have lost control over the accountability of drug delivery at almost every step, making it next to impossible to monitor. I get emails from frustrated nurse clinic managers, furious at having only 1000 doses of the new fixed dose combination delivered when they have 3000 patients on treatment, or 5000 delivered when they don't have the storage space for the 1000 they have on treatment.


It is not just stock outs either; it is also poor drug substitutions. We now have reports of dual therapy with a single NRTI and NNRTI, a recipe for almost certain resistance, when health care workers with inadequate training try to do the best they can with the drugs available.

So what do antiretroviral stock outs and interruptions do?

- It results in the progression to AIDS, if long enough, and delayed immune reconstitution
- Stock outs undermines adherence – we spend ages emphasising adherence, with a lot of success. A message of 'take our tablets every day and never forget, unless we forget to get them to you' undermines this message
- Increases possible resistance (definite if inappropriate drugs are used as described above)
- Increases possible seroconversion-like syndromes when interrupting, and possibly more cardiovascular events

The Society is pro-actively addressing it with several partner organisations.

Please do report stock outs on our website at <http://www.sahivsoc.org/stockouts>. Our guidance on the issue, on what to do with specific drugs, is also on the website. Clinicians should consider issuing private prescriptions for those patients lucky enough to be able to pay, in the event of certain drugs being missing. Furthermore, our guidelines help clinicians faced with this problem. However it is imperative that you as clinicians should report it, and make a noise. Our patients rarely have options, as they are poor, and they rely on you to advocate on their behalf. If you are worried about victimisation, report it anonymously, but do NOT let it go quietly. We need a strong Department of Health that delivers care properly, and we need them to understand the extent of the problem. The National Department supports and needs this initiative, and it's our responsibility to help them. Professor Francois Venter

Wits RHI's Deputy Executive Director and lecturer in the Department of Medicine, University of the Witwatersrand. Professor Venter can be reached at fventer@wrhi.ac.za 

The Society is pro-actively addressing it with several partner organisations. Please do report stock outs on our website at <http://www.sahivsoc.org/stockouts>

Girl, 7, battles MDR-TB

By Cynthia Maseko on October 4, 2013 in Children's Health, OurHealth, Tuberculosis (TB) Health-e, www.health-e.org.za

Lindokunhle Zwane, 7, was diagnosed with tuberculosis (TB) two years ago and is now battling multidrug-resistant TB (MDR-TB).

Lindokunhle's mother, Nombulelo Likhuleni, remembers when her daughter first fell sick in September 2010. "My daughter started losing weight and her temperature was high so I took her to the clinic," said Likhuleni, who lives in Msogwaba about 20 kms outside Nelspruit. "Her sputum was taken to the laboratory to be tested and she was diagnosed with pulmonary TB."

MDR-TB is resistant to two of the most commonly used anti-TB drugs, isoniazid and rifampicin.

MDR-TB can be transmitted from one person to another but it can also develop when patients can't complete TB treatment.

Likhuleni admits she didn't make sure Lindokunhle took every dose of her original TB treatment but says she never understood the importance of ensuring her daughter adhered to the daily treatment.

Now she fears that missed doses have caused her daughter to develop a form of TB that kills about 40 percent of all patients diagnosed with it:

"I didn't understand a thing when I was educated about TB and its treatment. During that time I was working and had to leave Lindokunhle with my sister. There were days that she was not given treatment. I didn't know skipping days without drinking her treatment would be a problem.

"Even when my daughter told me she hadn't taken her medicines, I didn't think it was dangerous to her health.



She completed her treatment and I was happy. I didn't know the TB would come back stronger than before," Likhuleni told OurHealth.

MDR-TB treatment lasts about two years and involves up to 20 pills a day and months of painful, daily injections. South Africa diagnosis 7,500 cases of MDR-TB annually, according to the Department of Health.


Nurses at the local Msogwaba clinic stressed that adhering to TB treatment is important and so is making sure that patients understand that.

Sometimes while we're educating patients with TB or their family member,

if you ask if they understand they would give you a big 'yes' and go," said one nurse who asked not to be named. "At their next visit to a professional you will start noticing that there are no changes to their health."

"People need to understand that it's very important to adhere to and complete their treatment as instructed by the health profession," she added. "If it happens that TB returns, this time is when Directly Observed Treatment Support (DOTS) must begin."

Introduced by the World Health Organisation, DOTS requires that community health workers – or DOTS supporters – are present when patients take their treatment every day.

Fikile Mkhonto is a DOTS supporter. He said that some patients may not adhere to treatment because they lack transport money to collect their treatment at clinics or struggle to cope with harsh side effects from MDR-TB treatment. MDR-TB treatment can cause nausea, vomiting and even permanent hearing loss 

"Even when my daughter told me she hadn't taken her medicines, I didn't think it was dangerous to her health"

Multidrug-resistant TB cases double

by Laura Lopez Gonzalez on October 24, 2013 in HIV/AIDS, Tuberculosis (TB)

Diagnosed cases of multidrug-resistant tuberculosis (MDR-TB) have nearly doubled globally but treatment in countries like South Africa's is not keeping up, leaving patients to die and communities at risk, according to a new World Health Organisation (WHO) report.

The WHO released its annual Global TB Report on 23 October 2013. According to the report, about 20 percent of the 94,000 MDR-TB cases diagnosed last year globally went untreated. Without treatment, MDR-TB patients face death and the likelihood of spreading MDR-TB within their communities. In South Africa, which diagnosed about 15,400 MDR-TB cases last year, MDR-TB treatment gaps are widening as access to testing increases. According to the WHO, South Africa is the first high TB burden country to roll out the rapid TB and MDR-TB test, the GeneXpert. However, the country experienced shortages of the testing cartridges in the first half of 2013. GeneXpert maker Cepheid has since planned to increase its production capacity and buffer stocks of cartridges to avoid future stock outs.

MDR-TB is resistant to both the most commonly used anti-TB drugs, rifampicin and isoniazid.

Rising rates of not only new MDR-TB but also TB are just two reasons the country is likely to reach several of the United Nations' Millennium Development Goals (MDGs) including targets to reduce new TB cases and deaths. The country is also unlikely to meet other international targets to increase numbers of successfully treated MDR-TB patients.

Comprised of about 20 pills a day

and painful injections, MDR-TB treatment is difficult to adhere to and takes about two years to complete. Even if patients adhere to the difficult treatment, half are likely to die from MDR-TB.

Earlier this year, the Medicines Control Council approved limited access for up to 200 patients to a new drug-resistant TB treatment, bedaquiline. Although approved for use in the United States as MDR-TB treatment, the drug is not yet registered for use as drug-resistant TB treatment in South Africa.

According to Doctors Without Borders' (DWB) Dr Vivian Cox, the data collected from these patients alongside that from clinical studies will be useful in advocating for the drug's future use at a time when better treatment options are needed.

"We need a breakthrough in treatment options to transform drug resistant TB treatment from an agonizing, toxic and prohibitively expensive two-year ordeal, to a shorter, more tolerable, more effective and more affordable treatment course," said DWB Access Campaign TB Advisor, Dr. Grania Brigden.

Meanwhile, one of the few drugs available to treat MDR-TB in South Africa, linezolid, remains out of reach for many patients. Currently, the drug costs up to R20,000 per month of treatment due to patent protection. While its patent expires in 2014, a patent on a crystallised form of the drug may block generics from entering the South African

One of the few drugs available to treat MDR-TB in South Africa, linezolid, remains out of reach for many patients. Currently, the drug costs up to R20,000 per month of treatment due to patent protection



market until 2022, according to DWB.


An Indian generic currently costs about R750 per month.

To further prevent TB deaths and meet international targets, the WHO says South Africa will have to improve the quality of TB treatment and continue to target at-risk populations such as miners and people living with HIV. The country will also need to continue to decentralise TB services.

While most people carry TB, only about ten percent will ever develop active TB disease. With comprised immune systems, people living with HIV are more than 30 times more likely to develop active TB than those who are HIV-negative. TB remains a leading killer of HIV-positive people globally.

South Africa is however set to meet MDGs regarding increased TB case finding and cure rates. The report also notes that South Africa has made strides in addressing HIV and TB co-infection. About 84 percent of all South African TB patients know their HIV status and more than half of all HIV/TB co-infected patients are on antiretrovirals (ARVs).

Research from South Africa's Aurum Institute has shown that ARVs, when taken together with TB treatment can halve this risk of death. According to the WHO's latest report, only 54 percent of HIV-positive TB patients are also on ARVs.

The report added that South Africa is currently planning a national TB prevalence survey that will help guide its fight against TB in the future. – Health-e News Service 



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The Medicines Information Centre (MIC) situated within the Division of Clinical Pharmacology, Department of Medicine at the University of Cape Town is the largest and only clinically-based medicine information centre in South Africa.

In collaboration with the Foundation for Professional Development and USAID/PEPFAR, the MIC provides a toll-free national HIV & TB hotline to all health care workers in South Africa for patient treatment related enquiries.

What questions can you ask?

The toll-free national HIV & TB health care worker hotline provides information on queries relating to:

- HIV testing
- Post exposure prophylaxis: health care workers and sexual assault victims
- Management of HIV in pregnancy, and prevention of mother-to-child transmission
- Antiretroviral Therapy
 - When to initiate
 - Treatment selection
 - Recommendations for laboratory and clinical monitoring
 - How to interpret and respond to laboratory results
 - Management of adverse events
- Drug interactions
- Treatment and prophylaxis of opportunistic infections

- Drug availability
- Adherence support
- Management of tuberculosis and its problems

When is this free service available?

The hotline operates from Mondays to Fridays 8.30am – 4.30pm.

Who answers the questions?

The centre is staffed by specially-trained drug information pharmacists who share 50 years of drug information experience between them. They have direct access to:


- The latest information databases and reference sources
- The clinical expertise of consultants at the University of Cape Town's Faculty of Health Sciences, Groote Schuur Hospital and the Red Cross War Memorial Children's Hospital



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Grief and bereavement in HIV

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The single most important factor in healing from loss or grief is having the support of other people

Grief is a natural response to loss that virtually everyone will experience as a result of the death of someone close or the loss of something significant. The physical, emotional, cognitive and spiritual symptoms of grief are upsetting and uncomfortable they usually diminish over time without treatment. However, for persons infected with and affected by HIV a range of unique factors may interfere with the usual resolution of symptoms. Coping with

a loss as a result of HIV/AIDS may differ from coping with losses to other diseases; as the shame, the lack of support and stigma associated with HIV may prevent people from freely mourning their HIV diagnosis or acknowledging the cause of death of their loved one¹. As a result, the grief process can develop into complicated grief which negatively impacts a person's health and everyday functioning. Their loss may never be fully resolved. According

to Holborn & Eddy² by 2015 there will be approximately 5 700 000 orphans in SA as a result of the HIV pandemic and these children and adolescents may be struggling with complications in grieving and may be attending healthcare facilities for their own treatment.

Screening

Currently, no valid and reliable tools for measuring grief in the clinical con-

Examples of loss:

- Divorce or relationship breakup
- Loss of health
- Losing a employment
- Loss of financial stability
- A miscarriage
- Retirement
- Death of a pet
- Loss of a cherished dream
- A loved one's serious illness
- Loss of a friendship
- Loss of safety after a trauma
- Selling the family home

text exist. For this reason, a thorough screening will involve a nurse/doctor-client interview in which the common symptoms of grief are assessed. To assess grief, according to Mallinson³, nurses and doctors need to apply interpersonal skills and therapeutic communication techniques in a compassionate manner.

People respond to death and loss differently according to their age and level of understanding. Children are often excluded as grievers because they are considered 'too young' to understand what has happened⁴. Some adolescents and those with learning disabilities may also have difficulty expressing their emotions and some may then show grief in a similar way to that of a younger child. Grief symptoms are intensified when dealing with AIDS-related deaths as it may prevent those who are left behind from openly mourning due to their loved one's cause of death. Nurses and doctors should always take the age, developmental (intellectual and emotional) stages and contexts of the loss into account when screening a child or adolescent for grief. Table 1.2 illustrates children and adolescents' expression of grief.

THE LANGUAGE OF GRIEF

Mourning refers to the public expression of grief (e.g. crying, wailing or silence) and it does not necessarily relate to the importance of the loss. It is often prescribed by culture, religion and family traditions.³

Bereavement is the sorrow you feel or the state of having suffered a loss or death of a loved one.⁴

Complicated grief: a prolonged period of intensified grief symptoms that disrupt the survivor's functioning in daily life; referred to as prolonged/traumatic/atypical/dysfunctional/ grief.³

Table 1.1 provides definitions of language used in grief

Step 1: Nurses and doctors' who are screening for grief must assess the person and their loved ones for common symptoms of grief:

Emotional symptoms:	enduring sadness, shock, anger, anxiety, loneliness, yearning, guilt, fear, withdrawal, feeling worthless, apathy and irritability, appetite disturbances
Physical symptoms:	fatigue, tightness in the chest, shortness of breath, lack of energy, numbness, nausea, body aches, panic attacks and insomnia
Psychological or Cognitive difficulty:	disbelief, confusion, sense of presence, lack of concentration, auditory hallucinations(hearing the voice of the deceased), intrusive thoughts, anxiety about death and mental fatigue
Spiritual distress:	questioning faith or the meaning of being a survivor

Step 2: Explore the nature and relationship of the loss or death.

- Do you know how the person died? What did people say after the person died? How did this make you feel? What has been the worst part for you? What has been most helpful?
- What changes occurred in your life as a result of this person's death?

Step 3: Assess if their grief reaction is appropriate for the setting or cultural context.

- Tell me about your family? Have you or your family had significant experience with someone who has had a serious illness or who has died? If so, how did that experience affect you? How long ago did that person die?
- What do you think your family's expectations are of you at this time?

- Is there anything I should know about your cultural, religious or spiritual views?

Factors that affect grief:

- Nature and relationship between the deceased and the bereaved
- The manner of death
- Availability of good support system
- Cultural and religious beliefs and practices
- Personality traits and coping style of the bereaved
- Multiple losses
- Mental health issues

Step 4: Assess the griever’s coping styles, perceptions of support and experiences of death, loss and grief.

Step 5: Assess barriers to effective grieving of an HIV related loss (eg. stigma, lack of support, multiple losses, physical and mental health issues)

For many children and adolescents who lose their primary caregiver and are orphaned, a host of consequent losses may follow, including: loss of siblings (dispersed to other caregivers), loss of friends/schooling (this group is highly mobile), loss of belonging to

nuclear family unit (often those taking care of orphans have taken on additional burdens) and loss of their home (loss of the breadwinner). Many orphans are not told the true nature of the death of their loved ones and this complicates their grieving further. If they find out they are HIV positive and later learn their loved one died of HIV related consequences, their views of their own mortality could lead to lack of adherence and mental health problems.

It is important to note that grief itself is not pathological but the factors noted above can interfere with, or complicate, the grief process.

Diagnosis

Grief is not a mental disorder as it is an expectable and culturally accepted response to the event of loss or death of a loved one⁵.

As part of the grief reaction, some individuals present with symptoms characteristic of Depression. Grief/bereavement is noted as a potential contributing factor for Major Depression but diagnosing Major Depression is discouraged unless symptoms of depression, following a loss, persist for at least 2 months. Table 1.3 clarifies the difference:

Grief/Bereavement	Depression
Guilt is focused on aspect of loss	Guilt is preoccupied with a negative self-image
Have moments of pleasure or happiness	Feelings of emptiness and despair are constant
Preoccupation with deceased	Preoccupation with self
Not demoralizing or humiliating	Demoralizing and humiliating
Overt expression of anger	Anger not as pronounced
Diminishes in intensity over time	Consistent sense of depletion
Suicidal gestures are rare	Suicidal gestures are not unusual
Responsive to support	Unresponsive to support
Elicits sympathy, concern and desire to embrace	Elicits irritation, frustration and a desire to avoid
Usually functions	Inability to function at work, home, and/or school

Table 1.3 illustrating the difference between grief/bereavement and depression⁶

When screening or diagnosing, it is important to remember that grief is a process that affects everyone differently and that it takes a long time to grieve the death of a loved one. Hence, there is no set time when one’s grieving is over:

- Significant days or events such as birthdays, anniversaries and holidays, can lead to increased symptoms of grief and should be planned for.

However, if the grief or bereavement response does not dissipate over time or if the grief worsens, it may indicate

that a more serious problem, such as complicated grief, has developed. Those dealing with AIDS-related deaths may be coping with the deaths of other family members or have HIV themselves and therefore may be at greater risk for complicated grief.

Management

Once an accurate diagnosis has been made, patients can receive guidance on appropriate non-pharmacological and pharmacological interventions that may assist them in healing.

Non-pharmacological management:

The single most important factor in healing from loss or grief is having the support of other people. Nurses and doctors should provide individual and family-focused bereavement care during each stage of terminal disease to prevent complicated grief onset. The relationship with the nurse or doctor is one of the most potent therapeutic tools for assisting patients who are dealing with grief; so:

Refer patients for:

- Supportive individual counselling
- Patient and caregiver support groups
- On-line support groups
- Bereavement groups
- Spiritual care and/or faith based communities
- Hospice and palliative care

- 1) Acknowledge and validate each person's loss as unique, encourage the expression of feelings and remember that mourning varies by culture and context;
- 2) Educate griever about grief symptoms

- 3) Reduce or eliminate barriers to effective grieving;
- 4) Provide resources for the bereaved to access community services and support;
- 5) Immediately after the death, it is important to reach out to the bereaved and acknowledge their loss.

Pharmacological management:

There is a limited place for pharmacological management in grief. Whilst, medication may relieve some of the symptoms of grief; it cannot treat the cause, the loss itself.

- If grief-related depression is so severe that it interferes with daily

- life, antidepressants may be prescribed. However, antidepressants may serve to delay the mourning process.
- If grief-related anxiety is so severe that it interferes with daily life, anti-anxiety medication may be helpful.
 - If the person is experiencing sleep problems, short-term use of prescription sleep aids may be helpful. [®]

Nurses and doctors should always take the age, developmental stages & contexts of the loss into account when screening a child or adolescent for grief

Age	Developmental State / Task	Concept of Death	Grief Response	Signs of Distress	Possible Interventions
2-4	Egocentric. Believes world centers around them. Narcissistic. Little cognitive understanding of death. Preconceptual – unable to grasp concepts.	Seen as abandonment. Seen as reversible, not permanent. Common statements, "Did you know my daddy died – when will he be home?"	Intensive response (depending on relationship with person who died) but brief. Very present oriented. Most aware of altered patterns of care.	Regression: sleeping and eating disorders – bedwetting.	Short interactions. Frequent repetition. Comforting. Touching.
4-7	Gaining sense of autonomy. Exploring world outside of self. Gaining language. Fantasy thinking/wishing. Initiative stage seeing self as initiator. Concerns of guilt.	Death still seen as reversible. Great personification of death. Feelings of responsibility because of wishes, thoughts. Common statements, "It's my fault; I was angry at her and that's why she died."	Verbalization. Great concerns with process. How? Why? Repetitive questioning.	Regression: nightmares, sleeping and eating disturbances, violent play. Attempts to take on role of person who died.	Symbolic play. Drawing / stories. Allow / encourage expression of energy / feelings about anger. Talk about it.
7-11*	Concrete – operational. Industry versus inferiority. Beginning of socialization. Development of cognitive ability. Beginning of logical thinking.	Death as punishment. Fear of bodily harm; mutilation. This is a difficult transition period – still wants to see death as reversible but beginning to see it as final.	Specific questioning. Desire for complete detail. Concerned with how others are responding. What is the right way? How should they be responding? Starting to have ability to mourn and understand mourning.	Regression: problems at school, withdrawn from friends. Sleeping and eating disturbances. Overwhelming concern with body. Suicidal thoughts (desire to join the one who died). Role confusion.	Answer questions. Encourage expression of range of feelings. Encourage / allow control. Be available but allow alone time. Symbolic play. Talk about it.
11-18*	Formal operation problem solving. Abstract thinking. Integration of one's own personality.	"Adult" approach. Ability to abstract. Beginning to conceptualize death. Sometimes their understanding of death is confused. Work at making sense of teachings.	Depression. Denial. Regression: more often willing to talk to people outside of family. Traditional mourning.	Depression. Anger. Anger towards parents. Non-compliance. Rejection of former teaching. Role confusion. Acting out.	Encourage verbalization. Do not take control. Encourage self-motivation. Listen. Be available. Do not attempt to take away grief. Re-explain death even if they seem to understand.

Table 1.2 illustrating children and adolescents' developmental stages in understanding grief, possible responses and suggested interventions © Margaret Metzgar M.A., SW, LMHC. Used with permission from author. Margaretm@pacmed.org

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Dealing with stock outs: A practical approach

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Health care workers are forced to spend their time trying to source medication and ultimately end up having to turn patients away without treatment or decide who gets the few tablets they have left on the shelf



In recent years, considerable energy and money has been spent trying to achieve universal access to treatment for HIV. In South Africa, challenges such as the need for adequate health infrastructure, trained health care workers and efficient medication supply chains are impeding increased access to treatment.

South Africa boasts the largest ARV programme in the world but one of the biggest threats to our health system and

our HIV programme in particular is the inconsistent supply of medication to patients in need. Stock outs do not only delay initiation of treatment of patients in desperate need but also detrimentally affect patients who are on treatment already. Stock out related ARV discontinuations are having an increasingly significant impact on retention in care and development of drug resistance.

Ensuring there are no interruptions in treatment requires a guaranteed supply of ARVs from factories where they are produced to health care facilities where they are dispensed to patients. At facility level, forecasting and ordering the correct quantities of medication and surgical supplies is essential to ensure that an adequate healthcare service is available that will meet the needs of the community.

What is a stock out?

If a healthcare facility physically has no medication on the shelf or in the facility with which to treat patients, this is defined as a stock out. Stock shortages occur when there is less stock of a medicine available than required for projected usage until the next order is received. Although not as severe as stock outs, stock shortages are also serious and need urgent and immediate attention.

What are the consequences of stock outs and shortages?

The consequences of stock outs are severe for the patients affected. They may have to travel to other healthcare facilities multiple times, take more leave from work than necessary or purchase their treatment from the considerably more expensive private sector, which most South Africans accessing the public health sector cannot afford to do. Some patients are left with no option but to go without their treatment, leading to poor health outcomes such as virological failure and drug resistance and in the worst cases, unnecessary and totally avoidable deaths. Patients lose confidence in the health system and health care workers who they trusted would meet their healthcare

needs.

Health care professionals dealing with medication shortages face the challenge of identifying alternative treatment options and constantly switch patients from one treatment to another, trying to ensure that their patients get the care they need. Instead of caring for their patients, healthcare workers are forced to spend their time trying to source medication and ultimately end up having to turn patients away without treatment or decide who gets the few tablets they have left on the shelf.

Understanding the supply chain process

Based on the various data submitted by clinics and hospitals in the public sector, the Department of Health forecasts the quantity of medication that will be required to treat the population. Tenders are then advertised to pharmaceutical manufacturers who will indicate what quantity they will be able to produce and supply throughout the tender period. Once the tender contract is approved, the manufacturer will start producing the medication to meet the tender needs. The medical depots in each province order stock from the supplier and store it on sight for distribution to hospitals and clinics who in turn order from them.

Although it looks simple on paper, the supply chain is very complex and sensitive to glitches. Inefficiencies at any point in the supply chain will have a ripple effect that ultimately results in stock outs at facility level. It is, therefore, important to recognise supply chain problems early and rectify them as soon as possible to minimise the effect on patient care. Everyone involved in the supply chain must do their bit to ensure the smooth movement of medication from the manufacturer at the starting point, to the patient at the end.

What role do nurses play in preventing stock outs?

In the absence of a pharmacist, the nurse providing the patients their treatment is the final link in the supply chain. In most of the healthcare facilities in



South Africa, nurses are also responsible for providing the data needed for accurate forecasting of medication quantities and for ordering the stock needed to treat the patients seen. Putting together a medication order is not a task that should be taken lightly and there are many factors to consider.

Some practical advice to guide the ordering procedure

- Assign the task of placing and receiving orders to one person.
- Check that sufficient quantities are ordered. Quantities may change and increase as facility services expand or disease burden increases in the community.
- Always have a second person check the order before it is submitted to ensure adequate quantities have been selected and that essential items have not been omitted in error.
- Provide ample time for the order to be compiled
- Ensure that your orders are always submitted on time and check that it has been received by the depot or supplying hospital
- Make sure the ordering schedule is clearly understood i.e. how often are orders submitted? How long does it take for an order to be processed and delivered? How reliable are the timeframes of the order schedule?
- Learn to differentiate between fast-moving and slow-moving items in your setting
- Always practice FEFO (first expiry first out)/FIFO (first in first out) and clearly mark short dated stock
- Some products have a short shelf-life e.g. Ritonavir solution expires within 6 months of being manufactured. Never order these products in excess and ALWAYS check the expiry date when an order is delivered
- Keep seasonal diseases in mind i.e. antibiotic use usually increases during winter when respiratory tract infections, bronchitis and secondary infections due to colds and flu are more common. Oral rehydration solution, anti-emetics and anti-diarrhoeal use usually increases

at the beginning of the rainy summer months.

- If space allows, keep a 2-3 month supply of buffer stock. This will ensure you have time to source stock if the depot or supplying hospital is experiencing a shortage/stock out without affecting patient care
- Give your shelves a quick check at the beginning/end of the day to identify items that may be running low and potentially run out before your next order arrives
- Always check the stock delivered as soon as possible after delivery
 - o Has everything you ordered been included?
 - o Did you receive the quantities you requested? If not, this could be a sign that there is a shortage at the depot/supplying hospital. Find out if this is the case as it may provide you with the time needed to source stock from other clinics/hospitals before you run out of stock
 - o Report any discrepancies to the facility manager and the depot staff or supplying hospital staff immediately

Guidelines on how to deal with a stock out and/or shortage

- Report the stock out and ask for urgent assistance. The stock out should be reported to the clinic/pharmacy manager, the depot/supplying hospital and the district pharmacist.
- Make sure that all staff are aware of the stock out/shortage
- Discuss the stock out/shortage with the prescribers to identify:

In the absence of a pharmacist, the nurse providing the patients their treatment is the final link in the supply chain.

- o Which patients should be prioritised to receive the remaining stock if it is a shortage
- o What alternative treatment is available and should be dispensed instead
- Ensure all patients are counselled about any changes to their treatment always confirm patient understanding by asking them to repeat the information provided
- If you are unsure how to manage your patients ask for help. The pharmacists/doctors/senior nursing staff at the referring hospital will be able to guide you.
- Check if you have the out of stock item on order and when it will be delivered (also confirm the quantity you are expected to receive and ensure it is sufficient)
- Call the depot or supplying hospital for more information:
 - o Confirm whether or not the item is out of stock
 - o Are alternative pack sizes available?
 - o Are alternative strengths available?
 - o Is an alternative treatment available?
 - o How long is the medication expected to be out of stock for?
- Place an emergency order immediately if needed
- Contact other clinics or hospitals to enquire about borrowing stock to prevent interruption of patient care while you wait for your order to arrive

If stock outs or shortages are a common occurrence it is important to evaluate the systems in place at the facility. Whether stock is managed using bin cards or an electronic system, it is essential that the data is always accurate and up to date. Medication stock outs are an unfortunate and sometimes unavoidable reality in the healthcare system but recognising shortages and/or stock outs early and addressing them urgently will minimise the impact and negative consequences on patient care. **R**

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A basic approach to therapeutic failure in children

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Adherence (as in adults) is a major contributor to treatment failure and is complicated by the use of unpalatable suspensions or syrups. Although non-adherence is a large contributor, there are, however, a number of additional factors to consider in a child who fails ART:

Antiretroviral therapy (ART) improves life expectancy and reduces HIV (Human immunodeficiency virus) associated morbidity in children. ART became available to the public sector in South Africa during 2004.¹ The scale-up programmes have dramatically increased access to care² and at the end of 2011 an estimated 2.1 million South Africans were receiving ART³, of these approximately 8% are children⁴. The country has made great strides in providing ART to all those who qualify for treatment, but even though more than 95% of pregnant women were tested for HIV in 2010 and over 95% HIV positive pregnant women received ART in 2011⁵, only 68% of HIV-exposed infants received ART as part of prevention of mother to child transmission (PMTCT) strategies⁶. Despite this, the PMTCT programme showed a reduction in transmission of HIV from mother to child from 12% in 2008 to 2.7% in 2011.⁷ UNAIDS 2013 Global report shows that South Africa has achieved an estimated 63% decline in new HIV infections in children (0 - 14 years of age) from 2009 to 2012.⁸

Despite these encouraging results, retaining those children who do become HIV infected in care, and on effective therapy, poses significant challenges. As the national ART programme developed, children were exposed to different PMTCT and first-line ART regimens. Before 2009, standard combination ART regimens were predominantly stavudine based, with a switch to abacavir based regimens from 2010.¹ Changes made to the PMTCT programme also further complicates ART exposure of children. This adds to the complexity of caring for HIV infected children as health care workers need to understand the history of ART exposure of each child.

There have been concerns regarding rapid scale up of ART services that, together with poor adherence, it would contribute to the emergence of drug resistance.⁹ Local data suggests that 38% of children failed first-line therapy within a mean duration of 31 months after initiation of treatment.¹⁰

How do we define therapeutic failure?

Treatment failure can be defined as virological, clinical or immunological. Table 1 shows the WHO criteria for clinical and immunological failure¹¹. Clinical and immunological failure are typically late features of treatment failure. The HIV viral load will usually become detectable prior to these events. A persistent detectable viral load may be significant, but low level or intermittent viremia does not always mean virological failure. The 2010 South African National Guidelines defines virological failure as a persistent plasma viral load above a 1000 copies/ml.¹² Actions depend on the current regimen and the risk of resistance. Current guidance advises switching regimens after:

1. Two consecutive viral load measurements >1000 copies/ml (log 3) 8-12 weeks apart for a child treated with a non-nucleoside reverse transcriptase inhibitor (NNRTI)-based regimen (nevirapine or efavirenz)

Or,

2. Two consecutive viral load measurements >5000 copies/ml (log 3.7) 8-12 weeks apart for a child treated with a boosted protease inhibitor regimen (usually lopinavir/ritonavir)

Why do children fail treatment?

Adherence (as in adults) is a major contributor to treatment failure and is complicated by the use of unpalatable suspensions or syrups. Although non-adherence is a large contributor, there are, however, a number of additional factors to consider in a child who fails ART:

- Transmission of resistant virus, especially nevirapine resistance, may cause early failure in young children initiated on a NNRTI-based first line. This is one of the reasons why lopinavir/ritonavir is chosen as initial therapy in young children.
- High initial viral loads: Children often have high initial viral loads. The rate of decline is expected to be similar to that of adults, where the viral load should be undetectable after 4 - 6

months of ART with good adherence. Children may take longer to fully suppress viral replication with potential for developing resistance.

- Drug interactions: It is essential to have adequate blood concentrations of each drug for ART to be effective. Certain drugs interact with ART, requiring dose modifications. For example, HIV infected children treated with lopinavir/ritonavir who develop tuberculosis (TB) require dose modification. The aim is to achieve a ritonavir dosage equivalent to that of lopinavir by adding extra ritonavir. This provides appropriate drug levels when co-administered with TB treatment. Simply doubling the dose of lopinavir/ritonavir is not effective. There will not be enough active drugs in the child's system to sustain viral suppression. This can lead to lopinavir/ritonavir resistance.¹³ Access to and storing ritonavir remains a real problem, therefore doubling the dose of lopinavir/ritonavir in HIV/TB co-infected children remains common practice.

- Malabsorption of drugs can occur in the presence of gastrointestinal illnesses such as diarrhoea or enteric infestations.
- Prescription errors: including not increasing dosage with increase in weight
- Adolescence presents a difficult time in the life of a chronically ill child. There is often a struggle for autonomy at the same time as guardians or caregivers expect adolescents to assume responsibility for their illness and treatment¹⁴. Previously well controlled children are often at risk of failure during this time. Initiating therapy during adolescence is associated with higher rates of failure than in adult or paediatric ART clients.¹⁵

When should we expect resistance in children failing first line ART regimens?

Children failing a first line lopinavir/ritonavir regimen are often not resistant to protease inhibitors (PI's), because multiple mutations need to accumulate in order for the virus to acquire resist-

ance to protease inhibitors (PI's). The reason for failure in these cases is mostly due to non-adherence to, especially, the lopinavir/ritonavir. This is in stark contrast with resistance to nevirapine, efavirenz and lamivudine, whereby only one single mutation is required for resistance.

Children failing an initial non-nucleoside reverse transcriptase inhibitor (NNRTI)-based regimen (nevirapine or efavirenz) are likely to have resistance. Prolonged failure on a NNRTI-based regimen may lead to cumulative resistance to the 'backbone' nucleoside reverse transcriptase inhibitors (NRTI's).

Which steps should be taken when treatment failure is identified?

Adherence interventions are an essential component of each clinic visit. Ideally non-adherence should be recognized long before virological failure. This requires good communication with the child / caregiver. Once virological failure is identified by viral load monitoring, the challenges related to adherence should be determined. Interventions for improving adherence should be decided upon with the child/caregiver. A plan of action may include changes in formulations, assisting with disclosure or referral to other services – including counsellors, a social worker or a psychologist, if needed. Local or regional expert advice may be sought.

Data on when to do resistance tests in children failing ART is scanty. One prospective study suggest that, in older children, there is no difference in the outcome of the second line regimen if children switch regimens at a viral load of a 1000 copies/ml versus 30

000 copies/ml, but the acquisition of resistance is significant, especially for those receiving a NNRTI-based first line regimen.¹⁶

Table 2 highlights the key components of an adherence assessment. It is crucial for health workers to assess adherence in a calm, non-judgemental way to ensure good rapport with the child and caregiver.

The possibility of resistance should be considered in each child failing ART, but resistance testing is expensive, not always helpful and only available at certain tertiary facilities. Testing should be performed while the child is on the suspected failing regimen and the results should always be interpreted together with the history of ART exposure, including PMTCT drug exposure and previous ART regimens. Some experts suggest children, treated with lopinavir/ritonavir based first line regimens, should have drug level monitoring done to confirm adequate blood levels prior to resistance testing. Like genotyping this is not always feasible. Table 3 highlights key components in assessing the risk of resistance and the need for genotypic testing.

Resistance testing should be considered in the following children:


- Children failing a second line regimen
- Children previously treated with an unboosted PI (no ritonavir in the regimen) - as soon as they have two viral load measurements > 1000 copies
- All children failing a lopinavir/ritonavir based regimen
- Children with prolonged failure on a first line NNRTI-based regimen - resistance testing may be helpful to decide on the NRTI options for the

second line regimen

Current South African Second line therapeutic options

The standard South African second line regimens for children are summarised in Table 4.¹² Care should be taken to record all prior ART use, including exposure to ART during the PMTCT programme. Children failing a first line PI-based regimen have less potent second-line treatment options available. In addition, their management may be further complicated by previous exposure to NNRTI-based PMTCT (use of nevirapine). These children should receive further treatment in consultation with a paediatric HIV expert. After adherence has been adequately addressed and the clinical team is in agreement, children failing first line NNRTI-based regimen can be switched to second-line PI-based regimens at local clinic level. If there is any doubt, these children should also be discussed with local experts.

Conclusion

Even though the nurse initiation and management of antiretroviral therapy (NIMART) programme does not allow nurses to switch patients from first line to second line ART regimens without assistance from a doctor, it is important for NIMART trained professional nurses to recognize patients with poor adherence and/or possible virological failure early. Prompt referral of these patients may prevent the accumulation of resistance and, together with newer fixed dose drug formulations for older children, improve the outcome of children receiving ART. 

Key message box

Improving the outcome of children and adolescents receiving ART

Early age appropriate disclosure

Early recognition and management of non-adherence

Adjust drug dosages according to weight at every visit

Boost Lopinavir/rtv with extra ritonavir in children receiving PI based ART and TB treatment

Recognise treatment failure early and refer promptly to appropriate level of care

If available, use newer fixed dose formulations for older children.

Table 1: WHO Criteria for clinical and immunological failure¹¹

Clinical failure	Occurrence of new or recurrent WHO stage 3 or 4 disease at least 6 months after starting ART
Immunological failure	<ul style="list-style-type: none"> Decline of CD4 count to less than the pre-treatment value Decline of CD4 count to <50% of the peak CD4 value while on ART CD4 count persistently lower than 100 cells/ml

Table 2: Assessing adherence in children

Review clinic attendance	<ul style="list-style-type: none"> Attendance of appointments Review pharmacy visit and medication pick-ups Review adherence over time – eg. pill count results
Interview child/caregiver	<ul style="list-style-type: none"> Be non-judgemental Discuss child/care giver's beliefs around HIV and medication Explore support structures Explore the possibility of social problems or substance abuse Screen child and care giver for signs of depression
Discuss disclosure	<ul style="list-style-type: none"> Does the child know his/her status? Does the caregiver know their status? Has the caregiver disclosed the status of the child to anyone in the family or friends? Is there a treatment buddy involved in the care of the child?
Discuss medication administration	<ul style="list-style-type: none"> Who administers the medication? When is medication given? Is there any spillage? Is swallowing observed (especially in adolescents)? Review technique of administering medication – especially where syrups are used
Discuss medication refusal	<ul style="list-style-type: none"> Does the child refuse medication? If yes, why? Discuss strategies to mask bad tasting formulations Provide counselling on good parenting strategies and conflict management Avoid physical punishment
Review drug formulations	<ul style="list-style-type: none"> Can the child swallow pills? Can the child be taught to swallow pills? If yes, switch the child from liquid formulations to tablet/capsules

Table 3: Assessing the risk of HIV resistance in children failing ART

Take a detailed history	<ul style="list-style-type: none"> Take a detailed history of the child's treatment <ul style="list-style-type: none"> Single drug switches Previous unboosted PI use Previous TB treatment and ARVs co-administered during that time Take a detailed history from the mother <ul style="list-style-type: none"> Maternal drug exposure due to PMTCT programme Maternal adherence during pregnancy and breastfeeding
Review prescriptions	<ul style="list-style-type: none"> Appropriate dosage per body weight Inadvertent drug changes Drug changes due to stock outs Have child/caregiver bring tablets/solutions to the clinic visit to see what they are administered by pharmacy
Review duration of treatment	<ul style="list-style-type: none"> Was viral suppression ever achieved? If yes, how long after start of treatment? When treatment failure was first noticed and what actions were taken?

Table 4: Current suggested second line therapy for HIV infected South African children

Failed first line PI-based regimen	Recommended second line regimen
ABC + 3TC + LPV/r	Consult with expert for advice
D4T + 3TC + LPV/r	
Unboosted PI-based regimen	
Failed first line NNRTI-based regimen	Recommended second line regimen (Discuss with expert before switching)
ABC +3TC + EFV (or NVP)	AZT + 3TC +LPV/r
d4T +3TC + EFV (or NVP)	AZT + ABC + LPV/r

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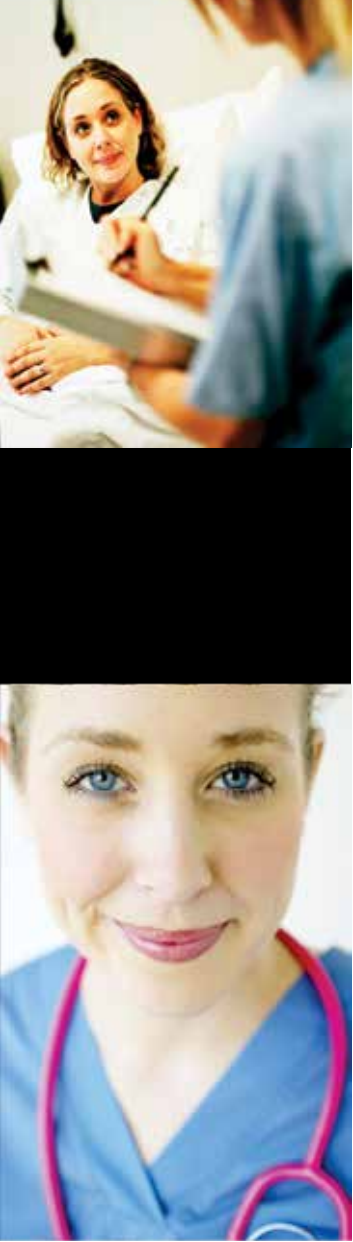
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WHAT HAPPENS WHEN SOMEONE FAILS THEIR FIRST ART REGIMEN?

Francesca Conradie MBBCh, Dip HIV Man

So once a person has failed their first line NNRTI regimen they cannot ever be given either EFV or NVP again. The development of this mutation can develop after even one dose of either of the NNRTIs- a fact we learnt after using single dose NVP in PMTCT.

CHOICE OF FIRST REGIMEN

All international and regional guidelines for the treatment of HIV infection including the South African and those of the World Health Organisation advise the use of a non-nucleoside reverse transcriptase inhibitor (NNRTI) with two nucleoside reverse

transcriptase inhibitors (NRTI) as a first line therapy for HIV infected individuals who require antiretroviral therapy. NNRTIs have fewer side effects than protease inhibitors (PI). Efavirenz (EFV) has been co-formulated with TDF and FTC/3TC as a fixed dose combination making prescription, dispensing

and adherence easier. EFV can be prescribed with the TB treatment, the most common presenting infection associated with HIV infection. In addition EFV and NVP can be used in pregnancy. However, the disadvantage of NNRTIs is that resistance can develop more easily if the adherence is not

perfect. Another way of saying this is that the NNRTIs have a lower barrier to resistance than the PIs. The importance of this will be described later in the article.

Thus, there are many reasons why we want the first line regimen to be a success. The key to long term success of the regimen is obviously adherence support. From the time a person is diagnosed as HIV infected, we need to stress that they will need lifelong medication at some time and that they must adhere to that therapy. And the same adherence message should be given at all patient contacts thereafter.

DEFINITION OF FAILURE

The only test that is done to detect failure to an ART regimen is a viral load. If a patient has a viral load above 1000 copies/ml, this must be treated as urgent. Call the patient back as soon as is possible. It is conceivable that with increased adherence support, the patient may re-suppress and can continue on their first line regimen. If however, after counselling and time to fix any adherence barriers, the patient's repeat viral load after a minimum of a month does not go below 1000 copies/ml, this patient has failed their first line regimen. The longer an individual is left on a failing regimen, the more resistant their virus becomes. Their virus can accumulate resistance mutations that can mean that their second line regimen may not work as well.

PLACE OF RESISTANCE TESTING IN FIRST LINE FAILURE

Resistance testing or genotyping is an expensive test and a resource that should be used with caution. The way it works is that the genes in HIV where the drugs work e.g. the reverse transcriptase genes are amplified in the lab. Then, we look for changes in those genes that tell us which drugs will work and which will not. From decades of experience with this test, we can predict which drugs will no longer work in our first line. Thus, we do not recom-

mend the use of a resistance test when an individual fails first line at this time. This may change in time as the technology becomes cheaper and easier

CROSS RESISTANCE AND MUTATIONS THAT WILL BE SELECTED

It is possible that even though a patient has never taken a particular antiretroviral, that they may be resistant to it. Although each of the drugs in the first line has a particular mode of action, there may be cross resistance to the others in that group of drugs. The most striking example of this is the NNRTIs. A single mutation or change the virus' reverse transcriptase gene can render both EFV and NVP completely ineffective even though the patient had only taken one of them. The resistance mutation that is most commonly selected is called the K103N but there are others that can do the same thing. So once a person has failed their first line NNRTI regimen they cannot ever be given either EFV or NVP again. The development of this mutation can develop after even one dose of either of the NNRTIs - a fact we learnt after using single dose NVP in PMTCT.

In all first line regimens, FTC or 3TC, forms part of the nucleoside backbone. These two medications are essentially interchangeable. They both act at the same place in virus replication. In addition, a single mutation makes both of them ineffective as with the NNRTIs. The mutation that is

selected in this case is M184V. But what is unusual about this mutation is that it "cripples" the virus. A virus with the M184V mutation is not as fit as one without it. In addition, when the virus has this mutation it becomes hypersusceptible to some of the other drugs including AZT. In other words, when this mutation is present, the virus is weaker and the other drugs in the regimen work much better. This is why we continue 3TC or FTC in the second line.

CHOICE OF SECOND LINE

From the above, if a patient has had two viral loads above 1000 copies/ml separated by at least one month, we know that they have failed their first line NNRTI regimen. They must be changed to second line and the recommendation is to change to a PI containing regimen. Countries may differ in their choice of PI but the most commonly selected one is LPV/r. This is the time for increased adherence counselling and an exploration of barriers to resistance. Discuss disclosure again. Talk about the importance of not missing doses.

Even though we know that the M184V mutation will be present, we almost always continue 3TC or FTC. The choice of the second NRTI is dependent on which was used in the first line. If TDF was used, then change to AZT. If d4T was used, then change to TDF.

Finally, when changing to second line, remember to check your patient for Hep B. Both TDF and 3/FTC treat Hep B and if the patient has active Hep B, then they should carry on both of these drugs with the new added PI and the second NRTI.

CONCLUSION

Adherence is the key to a successful ART regimen. However despite our best intentions, patients will fail their first line. Based on the knowledge and understanding of resistance, there is a programmatic change from first to second line. [®]

The only test that is done to detect failure to an ART regimen is a viral load. If a patient has a viral load above 1000 copies/ml, this must be treated as urgent

IMPORTANT TB DRUG INTERACTIONS

1. ISONIAZID DRUG INTERACTIONS

	Effect of Interaction	Management
Antacids	<ul style="list-style-type: none"> Absorption of INH is reduced by concurrent use of aluminium 	<ul style="list-style-type: none"> These agents should be administered at least 2 hours apart
Carbamazepine	<ul style="list-style-type: none"> Serum levels of carbamazepine increase rapidly 	<ul style="list-style-type: none"> Carbamazepine toxicity can occur Carbamazepine dosage must be reduced Must be closely monitored and dose adjusted
Paracetamol	<ul style="list-style-type: none"> Potential paracetamol toxicity 	<ul style="list-style-type: none"> Normal daily analgesic dosages of 4g may not be safe Warn patients to limit their use of paracetamol
Phenytoin	<ul style="list-style-type: none"> Phenytoin levels increased if administered with INH alone If both rifampicin and INH are given, serum phenytoin levels may decrease in fast acetylators of INH, but may rise in slow acetylators 	<ul style="list-style-type: none"> Phenytoin toxicity may occur if the dosage of phenytoin is not reduced appropriately.
Theophylline	<ul style="list-style-type: none"> Plasma level of theophylline may be increased 	<ul style="list-style-type: none"> Monitor levels
Warfarin	<ul style="list-style-type: none"> Warfarin levels increased 	<ul style="list-style-type: none"> Dose adjustment may be required

2. RIFAMPICIN DRUG INTERACTIONS

	Effect of interaction	Management
Lopinavir/ritonavir	<ul style="list-style-type: none"> Ritonavir levels reduced Increased ALT/AST 	<ul style="list-style-type: none"> Adjust LPV/r dose Monitor liver functions Consider change to rifabutin
Phenytoin	<ul style="list-style-type: none"> Phenytoin serum levels reduced When INH and RIF used with phenytoin, the reduction in levels may be less 	<ul style="list-style-type: none"> Monitor phenytoin levels and increase dose appropriately if used with rifampicin Monitor closely to adequately adjust dose
Zidovudine	<ul style="list-style-type: none"> Clearance of zidovudine increased 	<ul style="list-style-type: none"> Monitor for reduced response to AZT
Nevirapine	<ul style="list-style-type: none"> Nevirapine levels reduced 	<ul style="list-style-type: none"> Consider alternative
Valproic acid	<ul style="list-style-type: none"> Valproate levels may be reduced 	<ul style="list-style-type: none"> Monitor valproate levels and adjust dose accordingly
Calcium channel blockers: Nifedipine, Amlodipine, Verapamil	<ul style="list-style-type: none"> Calcium channel blocker levels reduced 	<ul style="list-style-type: none"> Monitor closely and increase calcium channel blocker dose if necessary

IMPORTANT TB DRUG INTERACTIONS....CONTINUED

Beta-blockers: Carvedilol, Propranolol	<ul style="list-style-type: none"> Beta-blocker levels reduced 	<ul style="list-style-type: none"> Beta-blockers excreted in the liver affected, those excreted unchanged in the urine e.g. atenolol not expected to be affected Monitor closely and adjust dose as needed
Antifungals: Itraconazole, Ketoconazole	<ul style="list-style-type: none"> Antifungal levels markedly reduced Rifampicin levels can be reduced by concomitant use of ketoconazole 	<ul style="list-style-type: none"> Antifungal effects reduced Administer ketoconazole and rifampicin 12 hours apart
Oral contraceptives: Ethinylestradiol, Levonorgestrel, Norgestrel	<ul style="list-style-type: none"> Contraceptive effect reduced 	<ul style="list-style-type: none"> Do not use concomitantly – break through bleeding common, pregnancy may not be prevented
Progesterone-only injectable contraceptives: Medroxyprogesterone acetate, Norethisterone enanthate	<ul style="list-style-type: none"> Contraceptive effect reduced 	<ul style="list-style-type: none"> Shorten the interval to 8 weeks between injections for medroxyprogesterone acetate, and to 6 weeks between injections for norethisterone enanthate Consider use of barrier contraceptives
Opioids: Morphine, Codeine	<ul style="list-style-type: none"> Opioid levels reduced 	<ul style="list-style-type: none"> Monitor for adequate pain control Opioid doses may need to be increased, re-evaluate when rifampicin stopped
Other: Glucocorticosteroids, Theophylline, Warfarin, Sulphonylureas, Ciclosporin, Quinine, Digoxin	<ul style="list-style-type: none"> Levels of these drugs may be reduced 	<ul style="list-style-type: none"> Increased doses may be required

3. PYRAZINAMIDE DRUG INTERACTIONS

	Effect of interaction	Management
Anti-gout agents: Allopurinol, Probenecid	<ul style="list-style-type: none"> Pyrazinamide inhibits urate clearance 	<ul style="list-style-type: none"> Dose of allopurinol or probenecid may require adjustment
Diuretics, Ethambutol	<ul style="list-style-type: none"> Additive increase in serum urate 	<ul style="list-style-type: none"> Monitor closely

4. ETHAMBUTOL DRUG INTERACTIONS

	Effect of interaction	Management
Pyrazinamide, Diuretics	<ul style="list-style-type: none"> Additive potential for increase in serum urate 	<ul style="list-style-type: none"> Monitor closely

TB/HIV Case Study

By Stacie C. Stender, MSN, MSc inf Dis, FNP Africa Regional Technical Advisor, TB/HIV/ID
Jhpiego-an affiliate of Johns Hopkins University



From September issue:

Ntombi, a 2-year-old girl, is brought to the primary health clinic (PHC) by her aunt Bongi to see you. Ntombi has not been eating well and has been less playful than usual for the past week. Bongi is worried about a large lump in Ntombi's neck which does not seem to be going away. You enquire about the child's parents and learn that the mother died one week after Ntombi was born and the father's whereabouts are unknown.

Give two additional social/family history questions you would ask Bongi about Ntombi's situation: cause of death of Ntombi's mother; if Ntombi's mother's HIV status was known; who is the primary caregiver of the child?; who lives in the same household as the child? Is anyone in the household ill or been recently diagnosed with TB?

Give two additional clinical history questions you would ask Bongi about Ntombi: does Ntombi have other symptoms such as cough, fevers, sweating, etc.?; when is the last time Ntombi was seen at the clinic? Is she often ill?; has Ntombi ever been tested for

HIV?; is Ntombi up-to-date on her vaccinations?; review the Road to Health Booklet and assess Ntombi growth; ask about development

Bongi does not know the cause of Ntombi's mother's death and states that she has been caring for Ntombi since her sister's death. Ntombi lives with Bongi, her husband, their 4 children, and 3 of Bongi's brother's children are visiting for school holidays.

What 3 aspects of the physical exam will you perform on Ntombi at a minimum?: vital signs: temperature, respiratory rate, heart rate, weight (plot on child health card); assess the head and neck, paying particular attention to the lump in the neck by inspection and palpation; assess the eyes, ears, nose, and mouth/throat for signs of inflammation, infection, etc.; respiratory assessment by inspection, auscultation. Note how easy/difficult Ntombi's breathing is; feel for a big liver and a palpable spleen; assess for meningitis

Ntombi is lethargic but responsive during the exam. The physical exam reveals: axillary temperature 37.6°C;

respiratory rate 44 breaths/min; heart rate 140 beats/min; weight 10.2 kg; white patches noted on Ntombi's tongue and soft palate; warm, tender, fixed, matted lymph node 2.5 cm in diameter above the left clavicle; no in-drawing during breathing.

What investigation available at PHC level will assist with your assessment and plan for Ntombi?: HIV rapid test.

The rapid and confirmatory tests are positive. You decide to refer Ntombi to the hospital 35 km away. What clinical information makes you suspect tuberculosis?: suspicious symptoms; physical assessment results - lymphadenopathy, oral candidiasis (immunosuppression), rapid breathing, fever, <-2 z score for weight, lethargy; HIV status making Ntombi more susceptible to tuberculosis.

What further diagnostic(s) will assist with determining if Ntombi has tuberculosis once she is evaluated at the hospital?: gastric aspirate; lymph node aspirate and analysis; chest X-ray; PPD skin test

December issue:

Bongi returns to your clinic with Ntombi, her 2-year-old niece, having last visited 6 weeks prior when you referred Ntombi to the district hospital for evaluation after diagnosing her with HIV and suspecting TB disease. Bongi tells you that Ntombi was diagnosed with TB and started on treatment 6 weeks ago, and she shows you her TB treatment card. Ntombi has been less active and eating poorly for the past 3 days and has refused TB medication since yesterday morning (missing 3 doses), after having improved for a few weeks.

What additional history questions will you ask Bongi regarding Ntombi?

- **Other medications, specifically did she receive treatment for oral candidiasis (previous case study presumptive diagnosis), cotrimoxazole preventive therapy, or start antiretroviral therapy (ART)?**
- **How well has Ntombi tolerated the medication prior to this episode? Is she taking all doses?**
- **Other symptoms which might indicate concomitant diseases or inadequate response to TB treatment: fever, night sweats, cough, etc.**

Bongi states that she did receive a liquid medication that she gave Ntombi several times a day for one week (you assume this was treatment for the oral candidiasis – it is not written on the TB card) and that she continues to give Ntombi a syringe of medication daily she was told prevents disease. She shows you the bottle and you see it is cotrimoxazole.

What 3 aspects of the physical exam will you perform on Ntombi at a minimum?

- **Vital signs: temperature, respiratory rate, heart rate, weight (plot on child health card)**

- **Asses for dehydration**
- **Assess the head and neck, paying particular attention to the previous location where there was a lump in the neck by inspection and palpation**
- **Assess the eyes, ears, nose, and mouth/throat for signs of inflammation, infection, etc.**
- **Respiratory assessment by and inspection, auscultation. Note how easy/difficult Ntombi's breathing is**
- **Feel for a big liver and a palpable spleen**

Ntombi is quiet yet alert during the exam. The physical exam reveals: axillary temperature 37.4 C; respirations unlaboured, rate 32 breaths/min; heart rate 128 beats/min; weight 9.8 kg; no lesions noted on tongue or soft palate; left clavicular lymph node previously noted to be enlarged, warm, and fixed now with 1 cm scar and no redness or tenderness.

What is your interpretation of Ntombi's history and physical assessment? (select the best answer(s))

1. *Ntombi is responding to TB treatment*
2. *Ntombi is likely failing TB treatment because she has not taken it the last 3 doses*
3. **Ntombi may have drug-resistant TB since she is having new symptoms after starting to treatment**
4. **Ntombi may have a new opportunistic infection**

What diagnostic(s) will assist with determining if Ntombi has drug-resistant tuberculosis?

1. Xpert MTB/RIF
2. Viral load
3. **Culture and DST**
4. PPD skin test

Does Ntombi need ART?


- **Yes**
- No

Yes, since Ntombi has TB and is living with HIV, she needs ART to help restore her immune function

When would you initiate Ntombi on ART?

1. *Immediately, as Ntombi needs ART as soon as possible*
2. **After appropriately treating Ntombi's current condition**
3. *After completing TB treatment (6 months)*
4. *After completing the intensive phase of TB treatment (2 months)*

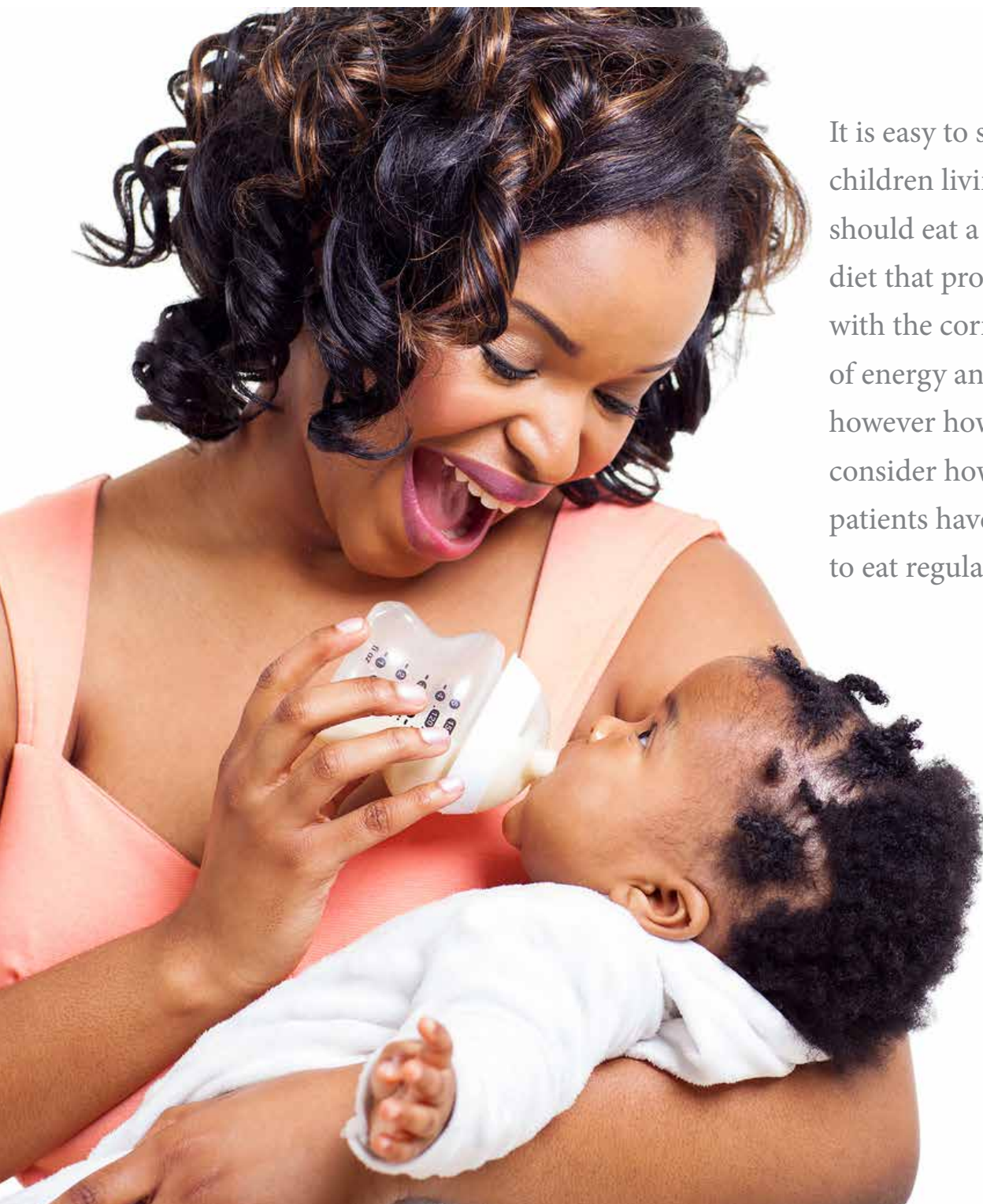
Ntombi improved on TB treatment for a short period of time (2-3 weeks), but then became less active and has not been eating well. Her vital signs indicate she has a low-grade fever and has lost weight since her last visit 6 weeks ago (9.8kg today, 10.2kg previously). There are several reasons why Ntombi may not be improving, and all need to be considered when deciding how to manage her today. You must take into consideration the following:

- Adherence to/efficacy of treatment – has Ntombi been given the TB treatment as prescribed? Is the dose correct for her weight? Is she able to swallow each dose? (she previously had oral candidiasis)? Is she adequately absorbing the medication? Is she taking other medications or herbal therapies which may interact with her TB treatment?
- Opportunistic infection – Ntombi is living with HIV. While she is being treated for TB, she may be experiencing another OI
- Drug-resistant TB – Ntombi is not improving on TB treatment, and has actually lost weight. Her current/recent exposure to MDR-TB is unknown, and her mother died soon after delivery 2 years ago.
- AIDS – Ntombi may be severely immunocompromised. She requires ART after ensuring she does not have any current opportunistic infections 

Feeding an infant that is infected with HIV

(Part two)

Written by Carey Haupt, Dietician RD (SA) Family Kitchen



It is easy to say that children living with HIV should eat a balanced diet that provides them with the correct amount of energy and nutrients, however how often do we consider how many of our patients have enough food to eat regularly?

Key points

1. Children living with HIV have increased nutritional requirements.
2. HIV, nutritional status and immune function are linked.
3. It is important to identify children that are malnourished and provide appropriate care and nutritional support, including referral to a dietician if available.
4. Involve the child in nutritional counselling in a way that is suitable to the child's age and their ability to understand.
5. Nutritional advice can be given to children and their caregivers that experience symptoms of HIV for side effects from its treatment.
6. Nutritional supplementation should only be given to patients that require it and should be stopped when it is no longer needed.

In order to correctly determine how much additional energy is required, each person needs to have a complete clinical and nutritional assessment. This is best done by a registered dietician. Micronutrients (vitamins & minerals) are required as part of a good nutritional status. They are found in different food substances, hence the importance of a balanced diet. Vitamins and mineral can be taken as a supplement. The basic guideline for micronutrients is 1 X RDA (recommended daily allowance). Taking high doses >3 X RDA can have harmful effects like nausea, vomiting and even a decrease in appetite⁴. During the dietary consult it is important to establish which and how many micronutrients are being taken. It is also a good opportunity to ask about herbs

Good nutritional status is important for the body to be able to function well. In order to have good nutritional status the correct type and amount of food should to be eaten¹. The American Dietetic Association (ADA) advocates that a person living with HIV has the ability to decelerate the progression of the disease and thus improve longevity by preventing malnutrition².

Poverty makes it more difficult for the family to provide adequate energy and quality of food that is required to support the immune system and support medical therapy³. It is easy to say that children living with HIV should eat a balanced diet that provides them with the correct amount of energy and nutrients, however how often do we consider how many of our patients have enough food to eat regularly? One of my roles in the clinic that I work in was to screen patients and issue out food parcels. The food parcels had been donated from a private source.

Nutritional requirements required for children according to their HIV stage

Stage	Clinical profile	Energy increase needed	Reason for energy increase
I & II	Asymptomatic	10%	Maintain growth
III & IV	Symptomatic	50-100%	Prevent growth failure and allow for catch up growth

or natural remedies.

Nutritional screening is used to identify people that are at risk or who are malnourished while nutritional assessment evaluates the nutritional status of the client⁶. Continual nutritional screening is important. A child first assessed with wasting, may after a few years on treatment, develop obesity or lipodystrophy. Both of these conditions need nutritional therapy and/or counselling.

One of the key parameters of a person's nutritional status is their dietary intake. In order to find out if they are consuming sufficient energy and quality of diet, the patient or caregiver needs to be asked about the daily intake. When you are counseling a

One interaction with a father and son changed my understanding of food insecurity. I was finished with screening the family for the food parcel, they qualified. The father said thank you and was very polite, as soon as the father had the parcel his son immediately reached into the packet and opened a tin of tuna and began eating it with his hands. I was shocked, as I did not realize how hungry the child was. The father had not indicated that they had not eaten in three days. This experience highlighted for me, as a dietician with 8 years of experience, how important and sensitive a person's food security is.

The increased nutritional requirements for children living with HIV have been well documented. The energy requirements are an additional 10% for children that are asymptomatic and additional 50-100% for children that are symptomatic⁵.

parent, consider using the following questions. They highlight important aspects of a child's nutritional intake:

1. Does the mother or other caregiver think that the child is eating well? Are there any particular challenges the mother or caregiver is having?

A child first assessed with wasting, may after a few years on treatment, develop obesity or lipodystrophy. Both of these conditions need nutritional therapy and/or counselling.




2. What and how much milk is the infant/child drinking?
3. What, how much and when were the child's solids started?
4. What are the weaning practices? Is the child delayed or on track with his/her eating development?
5. Is the child and/ or caregiver adhering to the child's treatment program? Does the child have difficulty taking his/her ARVs?
6. What type of cooking facilities does the family have?
7. If the mother is using a bottle, how is the bottle cleaned/ sterilized?
8. How many meals does the child eat in a day? Are all meals eaten at home or how many are eaten away from home?
9. Does the mother make her own food or buy infant foods? Are the textures appropriate for age of child?
10. Is the child on the Primary School Feeding Scheme? If not and food insecure refer the child to their schools feeding scheme.

Food based interventions should be the basis of all nutritional counselling. Work with what food the family has and teach them how to adapt the diet to suit the child's nutritional needs. If the family and child cannot meet the child's nutritional needs supplementation may be required. When required, nutritional supplementation is a key component of the management and treatment of HIV and should be provided to children that require it. However when used incorrectly it is a waste of funds and may result in patients that need supplements not receiving them.

It is important to understand that although nutritional supplementation can help to improve CD4 count, it does not have an effect on viral load. There is

no nutritional product for the treatment of HIV.

Thank you for reading this article if you are interested in more nutritional topics please have a look at our Family Kitchen website www.familykitchen.co.za. We are also very active on twitter and Facebook, where we answer nutritional related questions from the general public. If you would like to know more about Family Kitchen please email us at carey@familykitchen.co.za or abby@familykitchen.co.za 

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Problem	Assessment	Referral	Intervention
Delayed weaning	Diet history Milk and solid intake Meal pattern Sleep and activity pattern		Assess and advise on the appropriate milk intake for age.
	Medical history Oral health Gastrointestinal problems	Refer to medical team if problems like vomiting, reflux, oral sores, diarrhea or constipation are reported	Consider medical conditional and advise appropriately Food intolerance- may need hydrolysed protein or amino acid based feed Diarrhea- avoid spicy and fried foods; foods containing insoluble fibre; caffeinated drinks and foods high in lactose. Include bland foods like potatoes, white boiled rice, bread, pasta and food that have soluble fibre. Assess fluid intake. Constipation - increase insoluble fiber intake and fluids.
	Social history Financial status Cultural beliefs Isolation	Refer to social worker team	Provide nutritional advice sensitive to cultural beliefs Direct to nutritional support groups and aid support (food parcel or social grants). Find out what type of support the local community provides; an example could be religious organisations.
Neuro-developmental delay	Diet history Feeding techniques Meal pattern Behavior	Refer to speech and language therapy	Modify food consistency according to the patient's ability as assessed by the speech therapist. Encourage finger foods Encourage daily routine Consider supplementary tube feeding
Eating difficulties: swallowing, chewing or sore mouth	Diet history Meal pattern Feeding techniques Medical history Oral health	Refer to speech and language therapy Dental problems Side effects of medications	Modify food consistency according to the patient's ability as assessed by the speech therapist. Advise on high energy small frequent meals that the patient is able to tolerate. Soft, non-acidic foods Avoid spicy food and drink Use a straw to bypass lesions Suck ice lollies
Growth faltering	Diet history Appetite changes Meal pattern Timing of meal and snacks Fluid intake Eating away from home Disease progression Effects of medication Social /cultural influences Behavioral problems	Refer to medical team to identify / eliminate organic cause Refer to psychosocial team	Encourage energy and nutrient dense foods with small nutrient dense snack in between meals. Space drinks and snacks away from meals. Discourage excessive fluid intake. Use age-appropriate supplements if unable to meet requirements through usual diet and if the child is severely immune-compromised.



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YOU SNOOZE YOU LOOSE!



RESISTANCE MADE EASY WORKSHOP

Right to Care together with the Southern African HIV Clinicians Society is hosting an exciting new workshop: Resistance Made Easy.

It is directed at professional nurses and less experienced doctors who deal with patients on ART regularly and are experiencing problems with ART treatment failure. This workshop aims to demystify resistance testing for those who are unfamiliar with the process. We will also discuss issues around adherence, paediatrics and the new third line ARVs.

There will be a practical session where you will be taught to use the Stanford Database. There will also be a section of case discussions.

The first workshop will be held at the Right to Care offices, Helen Joseph Hospital, Johannesburg on 7 February 2014. There are 35 spaces available so places are extremely limited.

CPD points will be awarded for attendance.

If you are interested in attending this workshop please e-mail phontious.mashele@righttocare.org to request a registration form.

If you are not from Gauteng, there are plans to hold this workshop in other centres. If you are interested, please e-mail mamosa.kekana@righttocare.org with your location.

SEE YOU THERE!





Who is entitled to health care services?

Written by Sasha Stevenson, Attorney, SECTION 27

The best place to start when considering the law on access to health care services for non-citizens is the Constitution. The Constitution provides in section 27 that everyone has the right to have access to health care services including reproductive health care and no one may be refused emergency medical treatment.

An issue that has arisen recently, particularly in Gauteng, is access to health care services for non-South African citizens. Posters have appeared on the walls of some Gauteng hospitals announcing that those unable to prove their South African citizenship or refugee or asylum seeker status will be required to pay upfront for services. These posters are causing patients, some of whom may be South Africans not carrying an ID book, or refugees or asylum-seekers without their papers, to turn away from health care facilities, scared of the consequences of presenting themselves in what may appear intimidating and hostile environments. Dissuading people from accessing health care services can have significant personal and public health consequences.

The issue of access to health care services for non-citizens is always controversial. Arguments about the risks of opening access to health care services to non-South Africans tend to be based on tales of health care facilities being swamped by undocumented migrants, using South African resources, and coming to South Africa specifically for health care or to give birth to children. What the arguments tend not to take into account (as well as actual evidence on the relatively small number of non-South Africans using public health care facilities in South Africa) is the law.

The best place to start when considering the law on access to health care services for non-citizens is the Constitution. The Constitution provides in section 27 that everyone has the right to have access to health care services including reproductive health care and no one may be refused emergency medical treatment.

The issue then is who is included in "everyone" and does access to health care services mean free access to health care services.

The Refugees Act 130 of 1998 provides that refugees are entitled to the same

"basic health services" which "inhabitants of the Republic" receive. While this may appear to exclude asylum-seekers, section 22(1) of the Refugees Act, which deals with asylum-seekers, prevents a reception officer from imposing a condition in an asylum-seeker permit that is in conflict with the Constitution. This may suggest that asylum-seekers fall within the definition of "everyone" in the Constitution and should receive the same health care services as those available to refugees. Whether undocumented migrants are entitled to health care services is more complicated.

The National Health Act 61 of 2003 provides a list of persons who are eligible for free health care services. Pregnant and lactating women and children below the age of six (except those covered by medical aid schemes) are entitled to free health services and all persons (except those covered by medical aid schemes) are entitled to free primary health care services. The Act provides that the Minister of Health may prescribe conditions that may limit availability of these services by categorising people into those who are entitled to services and those who are not. No conditions have been prescribed, meaning that, unless they are covered by medical aid schemes, all pregnant and lactating women and children under six are entitled to free health care services and all persons are entitled to free primary health care services.

The Uniform Patient Fee Schedule ("UPFS") provides a uniform charging mechanism for public hospitals across the country. The UPFS categorises health care service users into full paying patients, subsidised patients, and patients who receive free services. The categorisation "full paying patients" includes all non-South Africans excluding permanent residents, those with temporary residence or work permits (which would include refugees and asylum-seekers) and persons from SADC states who enter the RSA illegally. This would appear to suggest that refugees,

asylum-seekers and undocumented migrants from SADC states are treated like South Africans, and subjected to means testing.

Those entitled to free health care services and free primary health care services in terms of the UPFS largely echo the provisions of the National Health Act, except it is provided that only South African citizens are entitled to free primary health care services. This restriction is contrary to the provisions of the National Health Act and may be unlawful.

Running parallel to the power of the Minister to decide who is entitled to free health care services and free primary health care services, the National Health Act provides that the MEC in a province may prescribe the procedures and criteria for admission to a health facility and may prescribe schedules of fees for different categories of users, forms of treatment and categories of facilities. In addition, the User Guide to the UPFS also provides that the extent of free services may vary among provinces in terms of provincial legislation.

So what appears clear is that, unless the MEC for Health in a province has prescribed a schedule of fees that requires the payment of fees by certain categories of people, all pregnant and lactating women and children under six, regardless of their citizenship, are entitled to free health care services, and all people, regardless of their citizenship, are entitled to free primary health care services. Secondary and tertiary health care services are available to South African citizens, refugees, asylum seekers and undocumented migrants from SADC states subject to fees determined through means testing and by reference to the UPFS. No one, regardless of citizenship, may be denied emergency medical treatment.

The nationally applicable law as it stands is in line with South Africa's constitutional and international law obliga-

tions to ensure access to health care services for all, and not to discriminate in the provision of health care services. It also aligns with the public health imperative to ensure access to health care services for those in the country.

The Gauteng Legislature has not passed legislation that provides for conditions for admission to hospitals or a schedule of fees but it appears that certain hospitals are implementing a policy, which is said to be a Department of Health policy, that is not publically available but reportedly requires the presentation of identification before a patient can be treated.

I have been unable to gain access to this policy document. It is therefore difficult to ascertain whether it is in line with the law already in operation. What

is clear, however, is that any measures by national or provincial departments of health to limit access to health care services must be reasonable and justifiable and supported by evidence. It is not, therefore, sufficient for assumptions to be made about the numbers of non-citizens accessing health care services and for policies, either at a provincial or a facility level, to be developed and implemented without real evidence.

The National Health Act 61 of 2003 provides a list of persons who are eligible for free health care services.

In addition, it is clear that even if the policy complies with the above requirements and merely requires the presentation of identification before a patient, South African or non-South African, can be treated, it is being implemented by targeting non-South Africans in a way that inevitably discourages people from accessing treatment and condones the xenophobia already unfortunately found in some health care facilities.

In the light of the clear Constitutional and legislative rights of everyone to access to health care services, it is imperative that policies limiting this right are clear and publically available and that they are implemented in a way that does not place individuals and society as a whole at risk. [®]



COMpetition

HIV/TB NURSING

Working in the TB room as a nurse is a very challenging task because you are faced with more than TB. Most patients with TB are also co infected with HIV/AIDS, so the TB nurse has to be extremely knowledgeable about both infections. A TB nurse has to work with a high volume of patients and she/he risks becoming infected with TB her/himself.

We want to hear about your experiences working as an HIV/TB nurse. What strategies do you use to support patients through treatment for both diseases? How do you keep them motivated, ensure they come for their appointments, make sure people living in the household are investigated, etc? We would love to publish your strategies for success in HIV Nursing Matters.

Submit your typed piece, not to exceed 1000 words, by 1 February 2014 and stand a chance to win a free one-year membership to the Southern African HIV Clinicians Society (the Society); complimentary registration to the Society's 2014 conference; and have your piece published in HIV Nursing Matters!

One winner will be chosen by 15 February. The winner agrees to the publication of the story in the March 2014 issue of HIV Nursing Matters and to submit a picture to accompany the article. The judges' decision is final and no correspondence will be entered into. Please note that only typed stories will be considered. Please submit via email to Nonhlanhla@sahivsoc.org.



Quiz questions

1. According to Holborn & Eddy, approximately how many orphans there will be in South Africa by 2015?

Answer

2. Which pharmacological management can be prescribed for a person who is grieving?

Answer

3. Name any 2 factors that can affect grief?

Answer

4. What's the difference between stockouts and stock shortages?

Answer

5. True or False, Always practice FEFO & FIFO and clearly mark short dated stock?

Answer

6. True or False, According to the PMTCT programme transmission of HIV from mother to child was reduced from 12% in 2008 to 0% in 2011?

Answer

7. Give 3 ways that therapeutic failure can be defined?

Answer

8. True or False, The longer an individual is left on a failing regimen, the more resistant their virus becomes?

Answer

9. Which Act provides a list of persons who are eligible for free health care services in South Africa?

Answer

10. What are the effects of drug interaction between Rifampicin and Nevirapine?

Answer

Answers to the questions above will be published in our next issue in March 2014, to test your knowledge you can answer the questions correctly and get a letter of certification from the Southern African HIV Clinicians Society. E mail your answers by the 15th of February 2014 to Nonhlanhla@sahivsoc.org or complete the survey online at <https://www.surveymonkey.com/s/HIVNursingMattersQuizDec2013>



DISTANCE PALLIATIVE CARE NURSING FOR PROFESSIONAL AND ENROLLED STAFF NURSES

INTRODUCTION

The WHO defines palliative care as “an approach that improves the quality of life of patients and their families facing problems associated with life-threatening illness, through the prevention and relief of suffering, the early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual.”

Palliative care is an integral part of every nurse's role. This course equips the nurse with the particular skills and knowledge required to care for patients with non-curable and terminal illness and to support the patient's family members.

WHO SHOULD ENROLL?

All professional and enrolled nurses registered with the SANC who care for patients with life-threatening illness.

COURSE DESIGN

The course consists of 3 parts:

1. Day release learning based on methods suitable for adult learners.
2. Assessment component (examination, communication skills and portfolio).
3. 128 hours clinical work – done in a HPCA approved Hospice. These clinical hours must be completed in the learner's own time.

COURSE STRUCTURE

1. Describe the development of palliative care and its role within the health care system and apply legal, ethical and professional principles in the care of patients and families, with particular reference to death and dying.
2. Describe the management principles of pain and symptom control in advanced illness with particular reference to malignant disease, HIV and AIDS, progressive neurological disorders and end stage organ disease.
3. Be competent in the interpersonal communication skills required to establish rapport and facilitate the grieving process with patients, families and colleagues.
4. Demonstrate the ability to understand the developmental stages as applied to social, cultural and spiritual dimensions in the provision of palliative care based on respect for the uniqueness of the individual.

ASSESSMENT / CERTIFICATION

Formative and summative assessment methods are used to evaluate learning at both theoretical and practical levels. To qualify for the certificate of completion for this short course, participants should fully attend the workshops, successfully complete the assessment process and complete the clinical work.

CLOSING DATE FOR REGISTRATION: 24 January 2014

ORIENTATION DAYS	DATE
Block 1: Handbook and Modules 1	10 – 14 February 2014
Block 2: Module 2	7 – 11 April 2014
Block 3: Module 3 and Module 4	23 – 27 June 2014
Block 4: Revision and Assessment	18 – 22 August 2014
CASE STUDY	DATES
Completed and bound	22 August 2014
COMMUNICATION SKILLS	DATES
Role play assessment	21 August 2014
LEARNING ACTIVITIES	DATES
Module 1: Learning activities	31 March 2014
Module 2: Learning activities	13 June 2014
Module 3: Learning activities	11 August 2014
Module 4: Learning activities	11 August 2014
CLINICAL WORK	DATES
Completed and submitted	22 August 2014
Completed evidence of work to be handed in	22 August 2014
MOCK EXAM	21 August 2014
FINAL EXAMINATION	17 September 2014

COURSE FEE

R 6 740 (Inclusive of all VAT and taxes where applicable)

EDUCATIONAL GRANT

This course is partially sponsored through an educational grant from the HPCA

All interested participants may also apply for a grant from HPCA. For application forms contact:

LESHOKO KOMANE

Tel: 012 664 8538
 Fax: 012 664 6175
 Email: lesoko@hpca.co.za
 nkosazana@hpca.co.za





**NATIONAL HEALTH
LABORATORY SERVICE**

RESULTS HOTLINE

0860

RESULT 737858

This line is dedicated to providing results nationally for HIV Viral Load, HIV DNA PCR and CD4 to Doctors and Medical Practitioners, improving efficiency in implementing ARV Treatment to HIV infected people. This service is currently available to members of Health Professionals Council of the South Africa and the South African Nursing Council. The hotline is available during office hours from 8am to 5pm Monday to Friday.

Register to use the RESULT HOTLINE

Follow this simple Step-by-step registration process

Dial the **HOTLINE** number **0860 RESULT (737858)**

Follow the voice prompts and select option 1 to register to use the hotline

A hotline registration form will be sent to you by fax or e-mail.

Complete the form and return it by fax or e-mail to the hotline to complete your registration process.

Once you are registered, you will be contacted with your unique number. This number is a security measure to ensure that the results are provided to an authorized user.

To use the hotline dial **0860 RESULT (737858)**

Select option 2 to access laboratory results.

- You will be asked for your HPCSA or SANC number by the operator.
- You will be asked for your Unique Number.
- Please quote the CCMT ARV request form tracking number (bar coded) and confirm that the result requested is for the correct patient.

Should the results not be available when you call, you will be provided with a query reference number which must be used when you follow up at a later date to obtain the result.

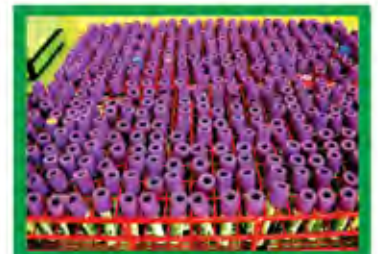
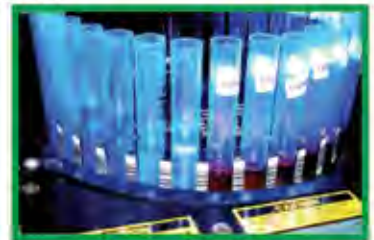
Once you have a Reference number

Select option 3 to follow up on a reference number

Should the requested results not be available, a query reference number will be provided to you.

A hotline operator will call you within 48 hours of receiving the laboratory results.

Registering for this service from the NHLS, will assist in improving efficiency, providing improved patient care and streamlining clinic processes. Call now and register to access results for HIV Viral Load, HIV DNA PCR and CD4.



NDOH/SANAC Nerve Centre Hotlines

- Any HCT concerns from facility and district managers should be reported to the NDOH/SANAC

Nerve Centre Hotline and, specific emails for each province:

- **Western Cape:** 012-395 9081
sanacwesterncape@gmail.com
- **Northern Cape:** 012-395 9090
sanacnortherncape@gmail.com
- **Eastern Cape:** 012-395 9079
sanaceasterncape@gmail.com
- **KZN:** 012-395 9089
sanackzn@gmail.com
- **Free State:** 012-395 9079
sanacfreestate@gmail.com
- **Mpumalanga:** 012-395 9087
sanacmpumalanga@gmail.com
- **Gauteng:** 012-395 9078
sanacgauteng@gmail.com
- **Limpopo:** 012-395 9090
sanaclimpopo@gmail.com
- **North West:** 012-395 9088
sanacnorthwest@gmail.com



AIDS Helpline 0800 012 322

The National Toll free AIDS Helpline was initiated in 1991 by the then National Department of Health's (NDOH) "HIV/AIDS, STD's and TB Directorate". The objective of the Line is to provide a national, anonymous, confidential and accessible information, counselling and referral telephone service for those infected and affected by HIV and AIDS, in South Africa.

In 1992, LifeLine was requested by NDOH, to take over the management of the Line by rotating it between the thirty-two existing community-based LifeLine Centres, and manning it with volunteer counsellors. In 2000, in response to an increasing call rate, a centralised Counselling Centre was established in Braamfontein, Johannesburg, to house the AIDS Helpline

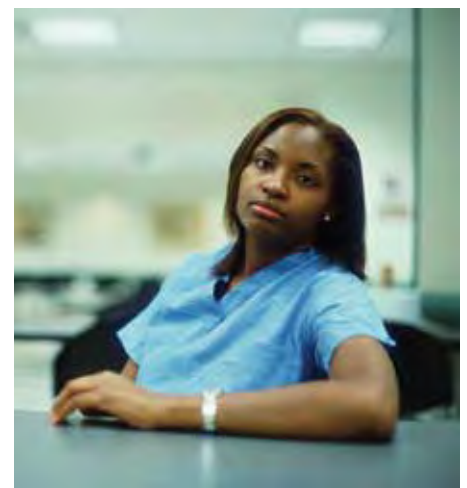
The AIDS Helpline a national toll-free, operates on a 24/7 basis and is utilized by people from all walks of life in urban and rural areas, in all eleven languages at no cost from a landline telephone.

Annually, the Line provides anonymous, confidential and accessible telephonic information, counselling and referrals to over 300 000 callers.

The AIDS Helpline plays a central role in providing a deeper preventative and more supportive service to those infected and affected by the disease, but also serving as an entry point in terms of accessing services from government, private sector and other NGOs/ CBOs

Cases presented to the range from testing, treatment, transmission, TB, Medical Male circumcision, etc.

The AIDS Helpline incorporates the Treatment line. The treatment support services were included to complement the services provided by lay counsellors on the line. The Treatment Line is manned by nurses who provide quality, accurate, and anonymous telephone information and/or education on antiretroviral, TB and STI treatment





ASK THE EXPERT

Dear Clinician

I am a nurse working with HIV positive patients, most of my patients have food insecurities and they sometimes take ARV's on an empty stomach. Is this practice allowed because if I encourage them not to take treatment on an empty stomach that might mean some days they won't take their treatment at all and that might cause drug resistance?

Answer

Dear Nurse Clinician

Patients can take their treatment on an empty stomach. The most important thing is for the medication to be taken every day - regardless of whether they have eaten or not.

If you have any HIV/TB clinical questions, Send your questions to "Ask the Expert" via Nonhlanhla@sahivsoc.org & you will get an answer in the next issue of HIV Nursing matters. If your question is urgent, please state it on your e mail & the answer will be e mailed back to you and still be published in the magazine.



CONFERENCE

2014

24-27 SEPTEMBER AT CTICC

SAVE THE DATE
24 – 27 SEPTEMBER 2014

Southern African HIV Clinicians Society 2nd Biennial Conference

International Convention Centre,
Cape Town, South Africa

Following on from the success of our inaugural conference in 2012, our second SA HIV Clinicians Society Conference will be taking place from 24 – 27 September 2014 at the CTICC.

Focusing on clinical content, our conference is aimed at doctors, nurses and pharmacists, and will be fully CPD accredited.

Please diarise this event and keep an eye on our website: www.sahivsoc2014.co.za, for the latest updates.

We look forward to welcoming you in Cape Town.

Contact: Scatterlings Conference & Events
Tel +27 (0) 11 463 5085 Email: fiona@soafrica.com





UNITING NURSES IN HIV CLINICAL EXCELLENCE, BECOME A MEMBER.



Who are we?

We are a member-based Society that promotes quality, comprehensive, evidence-based HIV health care, by:

1 LEADING • PIONEERING

We are a powerful, independent voice within Southern Africa with key representation from the most experienced and respected professionals working in the fight against HIV.

2 CONNECTING • CONVENING • ENGAGING

Through our network of HIV practitioners, we provide a platform for engagement and facilitate learning, camaraderie and clinical consensus.

3 ADVOCATING • INFLUENCING • SHAPING

With our wealth and depth of clinical expertise, we can help health care workers take their practice to a new level. We are constantly improving and expanding our knowledge, and advocating for clinical and scientific best practice.

Member Benefits

Join today and gain instant support from a credible organisation. The Society helps connect you with the best minds in HIV health care. Build your knowledge, advance your profession and make a difference by getting involved now!

- Free quarterly subscriptions to the *Southern African Journal of HIV Medicine*
- Free monthly subscription to the Society's e-newsletter, *Transcript*
- E-learning through CPD-accredited clinical case studies and on-line discussion group forums
- Free quarterly subscriptions to *HIV Nursing Matters*
- Weekly SMS clinical tips for nurse members
- Free CPD-accredited continuing education sessions
- Listing in the Society's online HIV provider referral network

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