

# GUIDANCE FOR ANTIRETROVIRAL THERAPY IN HIV-INFECTED INFANTS LESS THAN 1 YEAR OF AGE

An advisory message from the Paediatric Sub-Committee, Southern African HIV Clinicians Society

Forty per cent of HIV-infected children die before they reach their first year of life, mainly in the first 6 months. Data from the Children with HIV Early Antiretroviral Therapy (CHER) study indicate that even when infants appear well and their CD4 counts are >25% there is a 75% increased risk of mortality when antiretroviral therapy (ART) is deferred until threshold CD4 depletion occurs or clinical criteria are met.<sup>1</sup> Even after starting ART, young infants have excess mortality within the first year of life. Every effort should therefore be made to identify HIV-infected infants as early as possible so that ART can be initiated without delay.

### EARLY DIAGNOSIS

Owing to the high prevalence of HIV in southern Africa, the HIV status of all infants (and their mothers) accessing any health care facility (including consulting rooms of family practitioners, immunisation clinics, hospitals, etc.) for any reason should be determined.

- Mother known to be HIV positive, infant's status unknown – DNA PCR testing for infant as early as possible.
- Mother's HIV status unknown – rapid HIV test for mother or for infant if mother unavailable, followed by a DNA PCR for infant if either rapid test is positive.
- Mother HIV negative during pregnancy – offer repeat rapid HIV testing for mother and/or infant. If either is positive, then DNA PCR testing for infant.

Members of the Paediatric Sub-Committee: Mark Cotton (Co-chair), Leon Levin (Co-chair), Mohandran Archery, Raziya Bobat, Ashraf Coovadia, Brian Eley, Pippa MacDonald, Tammy Meyers, James Nuttall, Helena Rabie, Paul Roux, Gayle Sherman, Elizabeth Tabane, Avy Violari (<http://www.sahivsoc.org/>).

All HIV-positive mothers should have a CD4 count done and be referred urgently for care if the CD4 count is <350 cells/ $\mu$ l. (The Southern African HIV Clinicians Society recommends initiation of ART in all pregnant HIV-positive women where resources are available.<sup>2</sup>)

Once an HIV diagnosis is made in the infant, **ALL** HIV-infected infants should **urgently** be referred to an ART treatment site.

Start all HIV-exposed infants on co-trimoxazole from at least 4 - 6 weeks.

Immunisation should continue as per the Expanded Programme on Immunization.

When infants are diagnosed as HIV positive (i.e. by polymerase chain reaction (PCR)), mothers should be encouraged to continue or re-initiate breast-feeding.

### ANTIRETROVIRAL THERAPY

According to recently updated recommendations from the World Health Organization (WHO) in June 2008,<sup>3</sup> **all HIV-infected infants <12 months of age must be fast-tracked to receive ART.**

The interval between identification, adherence counselling and commencing ART should be as short as possible (1 - 2 weeks) as infants deteriorate rapidly. Adherence counselling should continue after commencement of treatment.

ART can be initiated after the first positive PCR, while awaiting confirmatory studies such as plasma HIV RNA (usually done at baseline before starting ART).

Infants diagnosed with HIV infection in hospital should be prepared and started on ART before discharge whenever possible (i.e. in most cases).

All infants in South Africa should be started on a combination of:

- Stavudine 1 mg/kg/dose bd (abacavir at 8 mg/kg/dose bd preferred)
- Lamivudine 4 mg/kg/dose bd
- Lopinavir/ritonavir (LPV/r) 300 mg/m<sup>2</sup>/dose bd (the WHO recommends LPV/r when NVP is used for prevention of mother-to-child transmission (PMTCT)).

Even when infants start ART early they remain at increased risk of illness and death, particularly in the first few months. All infants under 12 months old, even after starting on ART, should be assessed monthly until their first birthday.

#### REFERENCES

1. Violari A, Cotton MF, Gibb D, *et al*. Early antiretroviral therapy and mortality among HIV-infected infants. *N Engl J Med* 2008; 359: 2233-2244.
2. Southern African HIV Clinicians Society. Antiretroviral therapy in adults. *Southern African Journal of HIV Medicine* 2008(29): 18-31.
3. World Health Organization. Report of the WHO Technical Reference Group, Paediatric HIV/ART Care Guideline Group Meeting, WHO Headquarters, Geneva, Switzerland, 18 June 2008.



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Course Name	Course Dates	City/town	Cost (VAT Incl)
<b>HIV/AIDS Management Course:</b> Given the current state of knowledge on HIV/AIDS management and the fact that anti-retroviral therapy is becoming more affordable, it is now feasible to approach HIV/AIDS as a chronic medical condition. This course will empower clinicians to adequately manage patients with HIV and/or AIDS.			
HIV/AIDS Management Course	27-28 Feb 2009	Cape Town	R 3,000.00
HIV/AIDS Management Course	28 -29 March 2009	Durban	R 3,000.00
HIV/AIDS Management Course	3-5 April 2009	JHB	R 3,000.00
HIV/AIDS Management Course	13-14 June 2009	JHB	R 3,000.00
HIV/AIDS Management Course	8-9 Aug 2009	Pretoria	R 3,000.00
HIV/AIDS Management Course	25-27 Sept 2009	Cape Town	R 3,000.00
HIV/AIDS Management Course	2-4 Oct 2009	Durban	R 3,000.00
HIV/AIDS Management Course	9-11 Oct 2009	Free State	R 3,000.00
HIV/AIDS Management Course	21-22 Nov 2009	Mpumalanga	R 3,000.00
HIV/AIDS Management Course	1-3 Dec 2009	Pta	R 3,000.00
HIV/AIDS Management Course	3-5 Dec 2009	Cape Town	R 3,000.00
<b>HIV/AIDS Refresher Seminar:</b> HIV/AIDS is an ever-evolving discipline and with ARV drugs becoming more affordable, health professionals therefore need to stay abreast with the latest developments. The Foundation for Professional Development, in association with the Southern African HIV Clinician Society, developed this one-day refresher seminar which is targeted at alumni who successfully completed the 3-Day HIV/AIDS Management Course. We encourage all our alumni who completed the 3-day course to enrol on this refresher course so that they have access to the most recent evidence-based information on drugs and the management of HIV/AIDS patients.			
HIV/AIDS Refresher Seminar	28-Feb-09	JHB	R 1,300.00
HIV/AIDS Refresher Seminar	11-Mar	JHB	R 1,300.00
HIV/AIDS Refresher Seminar	30-May-09	Durban	R 1,300.00
HIV/AIDS Refresher Seminar	5-Nov-09	Cape Town	R 1,300.00
HIV/AIDS Refresher Seminar	1-Dec-09	Durban	R 1,300.00
<b>Paediatric HIV/AIDS Management Course:</b> Children with HIV/AIDS are dying unnecessarily because of a lack of access to ARV treatment. The problems arise mainly from a lack of cheap feasible diagnostic tests for children under 18 months, lack of trained health personnel and the affordable child-friendly ARV drugs. Simplified treatment guidelines coupled with a range of fixed-dose combinations of ARVs that require only one or two pills twice a day make it easier to treat HIV/AIDS in adults, but development of simplified drugs for children lags behind. Despite WHO simplified treatment guidelines that specify which drugs to use in children, countries have difficulty in getting simple and affordable combinations of the drugs. Two generic fixed-dose combinations should enter clinical trials this year, and there are frighteningly few second-line ARV drugs available for children in countries with large numbers of infected children.			
Paediatric HIV/AIDS Management Course	13-15 March 2009	Pretoria	R 3,200.00
Paediatric HIV/AIDS Management Course	27-29 April 2009	CT	R 3,200.00
Paediatric HIV/AIDS Management Course	8-10 May 2009	CT	R 3,200.00
Paediatric HIV/AIDS Management Course	2-4 Oct 2009	PTA	R 3,200.00
<b>Clinical and Ethical Refresher Course for GP's:</b> The Clinical and Ethical Refresher Seminar is designed to offer a unique learning experience by combining clinical and ethical issues in an effort to help general practitioners to update their skills and knowledge in specific areas. Most healthcare professionals have limited time available to attend clinical programmes. Furthermore, attending individual courses is costly and may be time consuming. The FPD Summer Academy therefore intends to offer healthcare professionals an opportunity to get away, save time and money, gain CPD points for attending this learning experience and get the best of what FPD has to offer.			
Clinical and Ethical Refresher Course for GPs	30/5-1/6 2009	Midrand	R 3,140.00
Clinical and Ethical Refresher Course for GPs	26-28 June 2009	Durban	R 3,140.00