updAIDS in SA Family Practice

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*upd*AIDS in SAFP

Throughout the world, poor people suffer more from illness and die younger than the more privileged. Poor people face greater exposure to many health threats, and when they fall sick they are much less likely to receive adequate care. Socioeconomic factors account for the bulk of the global burden of disease and death. In high-income countries, the estimated incidence of tuberculosis (TB) is 10/100 000, whereas in low-income countries it is 20 times higher. Today's great health challenge is equity: accelerating health progress in poor and socially excluded groups.

For many years antiretroviral therapy (ART) has not been accessible to millions of HIV-infected poor people living in Africa, and although the availability of antiretrovirals at public health facilities has accelerated tremendously over the last 12 months, thousands and thousands of poor people still do not have access to ART. In many countries the ARV roll-out has also been marred by an unacceptably low level of ARV provision to infants and children. This current issue of SAFP *updAIDS* addresses the newly proposed WHO clinical staging system and AIDS case definitions for infants and children under 15 years. Hopefully, these new definitions will harmonize paediatric and adult clinical staging and will contribute to better integration of paediatric and adult HIV services. Leadership in the battle against HIV rests not only with governments and the National HIV program but also with each one of us. Let us join forces to accelerate the equitable provision of HIV and TB services to all in need. Wishing you all of the very best for 2006.

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What is in the news?

The ongoing battle between the Treatment Action Campaign (TAC) and the Matthias Rath Foundation seems to gather momentum. In an unprecedented show of unity, TAC, the South African Medical Association (SAMA), the South African Council of Churches SACC) and the Congress of South African Trade Unions (COSATU) have launched a joint legal action to force Health Minister Manto Tshabalala-Msimang to stop vitamin entrepreneur Matthias Rath from campaigning against AIDS drugs and to stop illegally testing his remedies on HIV-positive patients.

In spite of Minister Tshabalala-Msimang's apparent scepticism of antiretroviral therapy (ART), more than 80000 South Africans are now treated with ART at accredited public health sector ARV sites across all 11 provinces. North West Province has done particularly well with regards to adult patients. North West Health MEC Nomonde Rasmeni recently announced that 11 ART sites had been accredited and that more than 8000 patients were receiving ART. The largest challenge remains the recruitment and retention of skilled health professionals. A total of more than 1000 health professional had been trained to manage the province's comprehensive plan on the management, care and treatment of HIV/AIDS. (http://www.sahivcliniciansociety.org)

During the 14th International Conference on AIDS and STIs in Africa (ICASA) a satellite meeting for was hold to discuss the issues that undermine the fight against HIV/AIDS: the shortage and inefficiency of human capacity in developing countries to deliver HIV prevention, care and treatment services. WHO has established a team for IMAI (Integrated Management of Adult Illness) that offers a set of operational tools that enables the decentralised delivery of ART, prevention and care with broader involvement of people living with HIV/AIDS. Countries adapt IMAI materials into their own social, cultural and health system contexts, with technical support provided by WHO. The IMAI approach has now been used in 27 countries of Africa, and its expansion to India, China and Viet Nam is underway.

Uganda has been a pioneer in the implementation of IMAI and has successfully trained 1570 health care providers in the comprehensive management of HIV/AIDS and expanded the number of sites delivering ART treatment across the country. Dr Elisabeth Madraa, Programme Manager of the National HIV/AIDS Programme of Uganda stated that the country would not have been able to put 67 000 people on ARVs if full sensitization and mobilization of the community health workers had not been implemented as part of the IMAI approach. (http://www.who.int/entity/hiv/capacity/icasa_uganda.ppt).

Clinical staging of HIV / AIDS in infants and children

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Infection with the human immunodeficiency virus (HIV) leads to an insidious and progressive loss of immune function that eventually results in the opportunistic infections and malignancies that are used to define the presence of the acquired immunodeficiency syndrome (AIDS). Infants and children are usually infected during the perinatal period. In contrast to adults in whom the time from transmission to the development of AIDS typically averages approximately 10 to 12 years, AIDS develops much more rapidly in infants and children. Due to their immature immune system HIV is poorly suppressed and HIV-infected children are therefore likely to demonstrate significantly higher viral loads than adults. The high viral load results in a rapid decrease of CD4+ lymphocyte and impaired cellular immunity. It is thus of paramount importance to diagnose infection with HIV as early as possible to institute co-trimoxazole prophylaxis and to initiate antiretrovirals (ARV) at the right time. In South Africa, the ARV roll out which has accelerated tremendously over the last six months has been characterised by a disproportionate slower ARV roll-out to infants and children. For example, at the end of September 2005 in North West Province, which has experienced one of the most successful roll-outs, only four of the 11 accredited ARV hospitals provided therapy to children and only 381 of the 8030 individuals (4.8%) on therapy were children[1].

The initiation of antiretroviral therapy (ART) is preceded by the clinical staging of your HIV-infected patient. To harmonise the classification systems for adults and for children WHO developed and published the INTERIM WHO CLINICAL STAGING OF HIV/AIDS AND HIV/AIDS CASE DEFINITIONS FOR SURVEILLANCE for the African Region[2,3]. The previous issue of SAFP *upd*AIDS covered the staging HIV infection in adolescents and adults, whereas this issue looks at the newly proposed staging and case definition of HIV/AIDS in infants and children younger than 15 years

Table 1: Revised WHO Clinical Staging of HIV for Infants and Children

Clinical Stage 1
- Asymptomatic
- Persistent generalised lymphadenopathy (PGL)

Clinical Stage 2
- Hepatosplenomegaly
- Papular Pruritic eruptions
- Seborrhoeic dermatitis
- Extensive human papilloma virus (HPV) infection
- Extensive molluscum contagiosum
- Fungal nail infections
- Recurrent oral ulcerations
- Lineal gingival erythema (LGE)
- Angular cheilitis
- Parotid enlargement
- Herpes zoster
- Recurrent and chronic RTIs (otitis media, otorrhoea, sinusitis)

Clinical Stage 3
- Moderate unexplained malnutrition not adequately responding to standard therapy
- Unexplained persistent diarrhoea (14 days)
- Unexplained persistent fever (intermittent or constant, for no longer than one month)
- Oral candidiasis (outside neonatal period)
- Oral hairy leukoplakia
- Acute necrotising ulcerative ginigivitis/periodontitis
- Pulmonary TB
- Severe recurrent presumed bacterial pneumonia
- Chronic HIV-associated lung disease including bronchiectasis
- Lymphoid interstitial pneumonitis (LIP)
- Unexplained anaemia (<8g/dl), and/or neutropenia (<1000/mm^3) and/or thrombocytopenia (<50 000/ mm^3) for > 1 month

Clinical Stage 4
- Unexplained severe wasting or severe malnutrition not adequately responding to therapy
- Pneumocystis pneumonia
- Recurrent severe presumed bacterial infections (e.g. empyema, meningitis, osteomyelitis, arthritis, septicaemia, but excluding pneumonia)
- Chronic herpes simplex infection (orolabial or cutaneous of more than one month's duration)
- Extrapulmonary TB
- Kaposi's sarcoma
- Candidiasis of oesophagus, trachea, bronchi or lungs
- CNS toxoplasmosis (outside the neonatal period)
- HIV encephalopathy
- CMV infection of organs other than liver, spleen or lymph nodes (onset at age >1 month)
- Extrapulmonary cryptococcosis including meningitis
- Any disseminated mycosis (e.g. histoplasmosis, coccidiomycosis, penicilliosis)
- Cryptosporidiosis
- Isosporiasis
- Disseminated non-tuberculous mycobacteria infection
- Visceral herpes simplex infection
- Acquired HIV associated rectal fistula
- Cerebral or B cell non-Hodgkin lymphoma
- Progressive multifocal leukoencephalopathy (PML)
- HIV-associated cardiomyopathy or HIV-associated nephropathy

Table 2: CD4 levels in relation to the severity of immunosuppression

Immune status	Up to 12 months		
Not significant immunosuppression	>35%		
Mild immunosuppression	25_34%		
Advanced immunosuppression	20_24%		
Severe immunosuppression	<20%		

Table 3: Criteria for initiating ART in infants and children

Clinical stages	Treatment
Stage 4	Treat with ART
Presumptive stage 4	Treat with ART
Stage 3	Consider treatment for all ages Children aged under 2 years usually require ART CD4 %, if available should be used to guide decisions
Stages 1 and 2	Treat with ART where CD4 count / percentage is available: • Under 12 months, if CD4 % < 20; • 13-60 months, if CD4 % < 15; • 5 years or over, if CD4 < 200/mm^3
Note: co-trimoxazole prophylaxis should be given to all HIV-exposed infants and children until HIV infection is excluded and to all HIV-infected infants and children	

(Table 1). The cut-off age of 15 years is applied as this is the usual cut off for WHO surveillance definitions. An additional classification for presumptive diagnosis of clinical stage 4 (severe HIV infection) in infants under 18 months is available for use in situations where access to confirmatory diagnostic testing for HIV infection by means of virological testing (usually polymerase chain reaction; PCR) or P24 antigen testing for infants and children aged under 18 months is not readily available[3]. It is not recommended for use by clinical care providers who are not trained in ART or experienced in HIV care. A for presumptive diagnosis of stage 4 clinical disease is made when an infant is HIV-antibody positive (ELISA or rapid test), aged under 18 months and symptomatic with two or more of the following:

- oral thrush
- severe pneumonia (requiring oxygen therapy)
- severe wasting/malnutrition
- severe sepsis (requiring intravenous antibiotics)

The diagnosis of clinical stage 4 HIV infection in an HIV-seropositive infant is supported by a recent HIV related maternal death or advanced HIV disease in the mother. Confirmation of the diagnosis of HIV infection should be sought as soon as possible[3]. Presumptive diagnosis of clinical stage 4 disease suggests severe immunosuppression, and ART is indicated. Where available, CD4 values may be used to guide decision-making.

IMMUNOLOGICAL CATEGORIES FOR PAEDIATRIC HIV INFECTION

Immunological staging for children is also possible as presented in Table 2. The absolute CD4 count and the percentage values in healthy infants who are not infected with HIV are considerably higher than those observed in uninfected adults, and slowly decline to adult values by the age of 6 years. In considering absolute counts or percentages, therefore, age must be taken into account as a variable. The absolute CD4 count associated with a specific level of immunosuppression tend to change with age, whereas the CD4 percentage related to immunological damage does not vary as much. Currently, therefore, the measurement of the CD4 percentage is recommended in younger children. CD4 testing is not essential for the initiation of ART, and should only be used in conjunction with the clinical stage. As for adults, immunological staging assists clinical decision-making and provides a link with monitoring and surveillance definitions. It is usually reversed by successful ART. CD4 can be used to monitor responses to treatment, although it is not essential. Absolute CD4 values also fluctuate with intercurrent illness and with physiological and test variability, so the trend over two or three repeated measurements is usually more informative than individual values.

Although there are concerns about the early use of ART in asymptomatic infants, all children with stage 3 or stage 4 disease (advanced HIV defined clinically) should start ART following discussion with their families. There is very strong evidence for the clinical benefit of ART in children with advanced HIV/AIDS. For older children some clinical conditions, e.g. LIP, appear to have a more stable clinical course, although there are few data on cohorts from African settings. A change of the clinical classification influences current treatment guidelines, and Table 3 has therefore been included to summarise the newest WHO recommendations for the initiation of treatment in resources poor settings[4].

References

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