

Editorial

After 3 decades of paediatric HIV/AIDS - Where do we stand?

“We believe by 2015, children everywhere can be born free of HIV and their mothers remain alive” declared the Joint United Nations Program on HIV/AIDS (UNAIDS) in its “Countdown to Zero” Global Plan towards the elimination of new HIV infections among children¹. We are closer to realizing this target than ever before, with most high income nations almost achieving this goal, and many low-middle income nations have already moved significantly towards achieving the same. The road towards the elimination of new HIV infections among children and keeping their mothers alive has been paved in India, as India now successfully undergoes transition in a phased manner, in line with the current WHO recommendations to the more efficacious PPTCT (prevention of parent-to-child transmission) regimen (Option B +). The WHO recommends providing lifelong antiretroviral therapy (ART) for all HIV positive pregnant and breastfeeding women, which will not only boost PMTCT (prevention of mother-to-child transmission) services, but will also significantly improve their health, and prevent the spread of infection to their partners².

The successes of the developed countries in the prevention and treatment of paediatric HIV/AIDS have not been replicated in the developing world, where a large number of children continue to become infected with HIV and die from HIV/AIDS everyday. Since the first cases of children with AIDS were reported in 1982, the number of children infected with HIV has risen dramatically, mainly in the developing countries³. Globally about 3.3 million children continue to live with HIV, of whom approximately 240,000 were new infections (58% lower than in 2002) and an estimated 190,000 AIDS deaths in children in 2013⁴. The overall rate of mother-to-child transmission (MTCT) of HIV declined to approximate 17 per cent (2013), yet many children continue to be born with HIV⁴. During 2013,

around 54 per cent of pregnant women globally were not tested for HIV and were, therefore, unaware of their HIV status. Of those who got tested and were diagnosed to be infected, seven of 10 received the necessary treatment needed to prevent MTCT, thereby averting approximately 900,000 new HIV infections in children⁵.

The critical preliminary steps for better management of HIV infected children are prioritizing early diagnosis and treatment initiation. Currently, 2.6 million children worldwide are eligible for treatment⁶. Though there is an increase in early diagnosis among infants, early initiation of treatment is not implemented and hence, there is a lag of ARV coverage in children as compared with adults. Children are under-represented among those receiving ART in almost every setting worldwide where treatment programmes have been established. Although more children are receiving ART than before, access remains unacceptably low with only 3 of 10 eligible children receiving HIV treatment in most countries⁷. In India, there are approximately 145,000 children below the age of 15 yr living with HIV. As of December 2012, 112,385 children had been registered in ART centers, of whom, 34,367 children were receiving free ART. Perinatal transmission of HIV in India is 5.74 per cent and approximately 23,000 new infections occur in children annually⁸.

The WHO through its new Guidelines (2013)² reinforces the need to reach out to children as early as possible, recommending initiation of ART for all HIV-positive children younger than five years. Emphasis is laid on aligning with adult recommendations such as the use of potent first-line regimens with non-thymidine analogues, viral load based monitoring and protease inhibitor (PI) based first-line regimens in children under 3 years regardless of PMTCT exposure².

Availability of fixed-dose-combinations has led to regimens with lower toxicity, lower pill burden, lower frequency of medication administration, all factors associated with better adherence and clinical outcomes. In clinically stable children with undetectable viral loads and normal CD4 cell counts for more than 6 months, switching from a twice-daily to a once-daily dosing of abacavir (ABC), the recent Food and Drug Administration (FDA) approval of efavirenz (EFV) for use in infants and children aged ≥ 3 months and weighing ≥ 3.5 kg and the new extended release tablets of nevirapine (NVP), will all go a long way in easing treatment administration as part of a once-daily regimen in children⁹.

Although current regimens have substantially and dramatically decreased AIDS-related opportunistic infections (OIs) and deaths, yet prevention and management of OIs remain critical components of care for HIV-infected children. Retention in care with lifelong adherence is imperative in order to achieve and maintain viral suppression as well as prevent drug resistance. Newer drugs are readily available as treatment components for infected children in the West, *e.g.* Dolutegravir (DTG) is now FDA-approved for use in children aged ≥ 12 yr and weight ≥ 40 kg who are either treatment-naïve or treatment-experienced but integrase strand transfer inhibitor (INSTI)-naïve. Raltegravir (RAL) is now available as a FDA approved single-use packet to be reconstituted and used within 30 min of mixing for use in infants and children aged ≥ 4 wk and weighing 3 kg to < 20 kg⁹.

It is alarming to note that a growing number of children and adolescents are experiencing first and second line treatment failures in resource limited settings¹⁰. Strengthening awareness about prevention and care for HIV, making diagnostic tests and child friendly formulations including third line and salvage regimens readily available in resource-limited settings are the need of the hour. ART for treating HIV is only one aspect of successfully treating children with HIV, with the other equally crucial aspect being the successful ongoing management of concurrent nutritional deficiencies and co-morbidities, which are ever so often common accompaniments in these children.

The transition of paediatric HIV from an acute terminal illness to a chronic manageable illness has major consequences for children as they now live

longer with making challenges of attaining greater developmental milestones and social milestones now take on immense significance than in the past. Challenges related mainly to coping with disclosure of HIV status, providing ongoing psychosocial support to help cope with not just illness but transition from paediatric to adult care¹¹ and also adolescent specific issues of education, employment, social security, sexuality, relationships, marriage and parenthood which deeply impact the ability to deal with the lifelong illness need strong advocacy for implementing legislations on basic rights of these adolescents. All these unique challenges must be recognized, understood and addressed appropriately at all levels to provide these children an opportunity in life, a chance for a better future.

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