

Editorial

The importance of partnership for care of children infected with human immunodeficiency virus

Human immunodeficiency virus (HIV) infection in children is common in resource limited settings [1]. If untreated, HIV infection causes progressive immunosuppression leading to opportunistic infections and other disorders. Most children infected with HIV progress to acquired immunodeficiency syndrome (AIDS) and die before the age of five [2, 3]. Treatment of HIV-infected patients with effective, combination antiretroviral drugs can improve virologic, immunologic status and survival, by preventing or reversing immunosuppression [4, 5]. Early diagnosis and prompt initiation of antiretroviral therapy (ART) in HIV-infected children remains a challenge. Failure of prompt initiation of ART is likely a major reason for high mortality rates seen in resource-limited settings [6].

Baseline severe anemia is common in developing countries. The causes of severe anemia are multiple. It is a condition that may cause delay in the initiation of therapy particularly when some of the early generation of inexpensive ART drugs such as zidovudine (azidothymidine or AZT) may also lead to anemia and neutropenia. Patients who receive a prescription for AZT should be counseled to contact their providers if they develop dyspnea on exertion or shortness of breath. A complete blood count should be conducted. Side effects with various other ART drugs are also common. Some of the side effects may improve with continued adherence. It is important for providers to understand the degree of seriousness of these adverse events and adjust the ART regimens for each HIV-infected child within the reality and limitations of local health systems [7]. It is also important for providers to inform caregivers of these HIV-infected children about various side effects. Caregivers should be encouraged to be vigilant in observing and reporting potential adverse drug reactions. Therefore, it is of paramount importance to develop a good partnership between providers and caregivers such that a good continuing adherence to various ART regimens for each child can be attained

and immunosuppression averted leading to better health and quality of life within the limit of resources of a given context.

The article “HIV-infected children in the Asia-Pacific region with baseline severe anemia: antiretroviral therapy and outcomes” published in this volume gives a snapshot of the situation of ART treatment of HIV-infected children in resource-limited settings [8]. The findings can serve as a reasonable baseline to mount a system leading to an early diagnosis, prompt treatment and adequate adherence to treatment stressing the importance of partnership of care between providers and caregivers of children infected with HIV.

References

1. World Health Organization. Antiretroviral therapy of HIV infection in infants and children: towards universal access: Recommendation for a public health approach. World Health Organization: Geneva; 2010; 1-206.
2. Spira R, Lepage P, Msellati P, Van De Perre P, Leroy V, Simonon A, et al. Natural history of human immunodeficiency virus type 1 infection in children: a five-year prospective study in Rwanda. Mother-to-Child HIV-1 Transmission Study Group. *Pediatrics*. 1999; 104:e56.
3. Newell ML, Coovadia H, Cortina-Borja M, Rollins N, Gaillard P, Dabis F, Ghent International AIDS Society (IAS) Working Group on HIV infection in women and children. Mortality of infected and uninfected infants born to HIV-infected mothers in Africa: a pooled analysis. *Lancet*. 2004; 364:1236.
4. Hiappini E, Galli L, Tovo PA, Gabiano C, Lisi C, Bernardi S, et al. Five-year follow-up of children with perinatal HIV-1 infection receiving early highly active antiretroviral therapy. *BMC Infect Dis*. 2009; 9:140.
5. Guillen S, García San Miguel L, Resino S, Bellón JM, Gonzalez I, Jimenez de Ory S, Madrid Group for Research on Pediatric HIV Infection. Opportunistic infections and organ-specific diseases in HIV-1-infected children: a cohort study (1990–2006). *HIV Med*. 2010; 11:245.
6. Fenner L, Brinkhof MW, Keiser O, Weigel R, Cornell M, Moultrie H, et al. Early mortality and loss to

- follow-up in HIV-infected children starting antiretroviral: International epidemiologic databases to evaluate AIDS in Southern Africa therapy in Southern Africa. *J Acquir Immune Defic Syndr.* 2010; 54:524.
7. Vo TT, Ledergerber B, Keiser O, Hirschel B, Furrer H, Battegay M, et al. Durability and outcome of initial antiretroviral treatments received during 2000–2005 by patients in the Swiss HIV Cohort Study. *J Infect Dis.* 2008; 197:1685.
 8. Lumbiganon P, Kosalaraksa P, Bunupuradah T, Boettiger D, Saphonn V, Truong KH, et al. HIV-infected children in the Asia-Pacific region with baseline severe anemia: antiretroviral therapy and outcomes. *Asian Biomed.* 2016; 10:229-34.