

**Nutritional status of children living with HIV and receiving antiretroviral (ARV) medication in the Klang Valley, Malaysia.**

ABSTRACT

Nutrition and HIV are closely related. Any immune impairment as a result of HIV leads to malnutrition, which in turn, can also lead to reduced immunity, thus contributing to a more rapid progression to AIDS. Methods: This cross-sectional study determined the nutritional status of children living with HIV and are receiving antiretroviral medication in the Klang Valley. A total of 95 children aged one to eighteen years old were recruited between September 2008 and February 2009. Data collected included socio-economic status, anthropometric measurements, dietary intake, medical history and serum levels of selected micronutrients specific for immunity. Results: The mean age of the children was  $8.4 \pm 3.9$  years and the mean duration on antiretroviral medications was  $68.3 \pm 38.3$  months. Anthropometric assessment found that 9.5% of the children were underweight and 31.6% were overweight. In contrast, 20.8% were stunted and 14.6% severely stunted. Biochemical indicators showed that 10.4% had deficiency in vitamin A while 12.5% had deficiency in selenium. Total cholesterol and HDL-C levels were found to be low in 30.5% and 10.5% of the children respectively. Conclusion: Dietary assessment showed almost all the children did not achieve the recommended energy intake for their age groups and almost half of the children did not achieve the RNI for selenium and vitamin A. This study provides an insight on the nutritional status of children living with HIV.

**Keyword:** Antiretroviral (ARV); Human Immunodeficiency Virus (HIV); Lipidprofile; Micronutrients; Nutritional status.