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## Improved Immunological Values in HIV/AIDS Patients on Combined ARV/Antihelminthic Therapy

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### Background

The immune activation induced by enteric pathogens play a significant role in HIV/AIDS pathogenesis with greater potential in disease progression especially in resource limiting countries where incidence of helminthic infestation is high. These results describe the outcome, tolerance and safety of a combined ARV/anthelmintic therapy in HIV/AIDS patients in Lagos Nigeria.

### Methods

Eighty-nine HIV/AIDS patients, 62% males, mean ages 52 ± 17 were randomly selected at three HIV/AIDS treatment centres in Lagos, Nigeria. Study period was between October, 2004 and April 2005. Three serial stool samples were collected from these patients and screened for helminthic pathogens. *Ascaris hambricoides*, *Trichuris trichuria* and Hookworm representing 41%, 28% and 21% respectively were the most predominant helminths. Viral load, CD4 cell count, weight, haematological and chemistry parameters were noted at baseline. These parameters were again determined at 3 and 6 months after combined therapy of ARV and antihelminthic drugs.

### Results

A general correlation exists between HIV plasma viral load and the number of excreted worm eggs in stool of studied candidates. In group 'A' individuals with complete eradication from helminths, there were significant reduction in HIV/AIDS related symptoms notably, pallor, abdominal pains, diarrhoea and mean increase in CD4 count. Also, a mean reduction of 0.32log<sub>10</sub> copies/ml of viral load, weight-gain, increase haematological and decrease chemistry parameters were generally observed at 3 and 6 months follow-up from baseline. A median increase of 0.14 log<sub>10</sub> copies/ml of viral load was observed among

group 'B' candidates who were either persistently helminth-negative or helminth-positive at 3 and 6 months follow-up from baseline. Two of the patients under study were lost to full-blown AIDS among group 'B' candidates.

### Conclusion

Results of this study showed that, the combine use of ARV and antihelminthic drugs in the treatment of HIV/AIDS patients is safe, well tolerated and offers effective viral load suppression with attendant increase in immunological values. This therapeutic approach is of great relief for patients in developing countries when cost and accessibility to ARV drugs are considered.