CBV/EFV arm at 48 weeks.[30] Concerns about ART and intrusiveness were also reported lower in those switched to the TDF/FTC/EFV arm. There were however no significant differences in necessity, beliefs, quality of life or viral loads between the randomized groups. A study of the psychosocial factors affecting medication adherence among HIV-1 infected adults receiving combination antiretroviral therapy in Botswana, though not describing the dosing types, found adults receiving HAART for the first 6 months to be least adherent.[31]

Pharmaceutical superiority
This is another confounding factor not catered for in this research. Some studies have comparatively shown superiority over the TDF/FTC/EFV arm against CBV/EFV in ART naïve patients through measurements of HIV RNA levels (VL) at 48 weeks.[16]

Natural course of HIV infection
The study results could be affected by several factors relating to the natural course of HIV infection. Several strains of HIV have been recorded in different parts of the world and although the most prevalent HIV strain in Botswana is HIV-1 subtype C, there may potentially be patients with different strains in Botswana. There are specific biological characteristics of HIV-1C including high genetic diversity which may potentiate the emergence of ARV drug resistant HIV strains.[32] Evidence of greater rates of disease progression in globally prevalent C and D subtypes highlight the importance of expanding early HIV detection, and determining subtype profile at baseline with CD4 staging to optimize the quality of ART delivery and care in global settings[33]. These facts have not been adjusted for in this study.

Study Limitations

The sampling method as already described was conveniently selected and not randomized as initially proposed. Although this was noted in the statistical analysis, it negatively impacts on the credibility of the results obtained as the likelihood of selection bias is introduced.

The study is limited to response to treatment in the initial 3 month period. The initial response does not necessarily translate to long term treatment outcome. Absolute CD4 cell counts were used as an endpoint but this variable has been found to fluctuate with individuals and with intercurrent illnesses.[10]

Conclusion

Treatment response at 3 months post initiation between once daily and twice daily HAART in Gaborone Botswana by use of virologic and immunologic response has been shown to be comparable. The use of one regimen over the other as first line as recommended by WHO and the subsequent adoption of the current first line regimen by the Botswana Ministry of Health may be justified. This study has therefore reinforced the applicability of previous findings in other settings of this recommendation. As part of the targeted audience and indeed as a partner in the care and management of HIV, the responsibility to ensure applicability of the recommendations set out for resource limited areas has been achieved through this study. However, bigger randomized trials in resource limited settings are needed to justify and accredit these findings as well as add to the evidence obtained in developed countries.

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$$eC_{Cr} = \frac{(140 - \text{Age}) \times \text{Mass (in kilograms)} \times Constant}{\text{Serum Creatinine (in } \mu\text{mol/L)}}$$

Where *Constant* is *1.23* for men and *1.04* for women.

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