

Poster presentation

Open Access

The dose adherence computation model: a critical review of anti-retroviral drug level of adherence computation

D Ofori^{*2}, P Agyei-Baffour², G Acquah-Hagan¹, AJ Amankwa¹ and ENL Browne²

Address: ¹Komfo Anokye Teaching Hospital, Kumasi, Ghana and ²Department of Community Health, School of Medical Sciences, College of Health Sciences, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

* Corresponding author

from *Frontiers of Retrovirology: Complex retroviruses, retroelements and their hosts* Montpellier, France. 21-23 September 2009

Published: 24 September 2009

Retrovirology 2009, **6**(Suppl 2):P64 doi:10.1186/1742-4690-6-S2-P64

This abstract is available from: <http://www.retrovirology.com/content/6/S2/P64>

© 2009 Ofori et al; licensee BioMed Central Ltd.

Objectives

To develop a model for determining the level of dose adherence of Anti-Retroviral Therapy (ART) clients from the first day of ART to the day of interview and to determine their level of dose adherence using the model.

Methods

A cross-sectional study was conducted using pre-tested standardized questionnaires in exit-interviews in three ART centres and eleven social support groups to determine the level of dose adherence of ART clients in the Eastern Region of Ghana. A dose adherence computation model was developed from the study based on the observed doses, the expected doses, the missed doses and the frequency at which clients defaulted since commencement of ART. This model married the short-term recall of missed doses and the long-term default frequency to arrive at the observed/actual adherence levels of ART clients.

Results

The observed doses were derived from the difference between the expected doses and the missed doses. Standard adherence levels derived from the model based on literature were 25%, 50%, 80% and 100%. However, 83.2% of respondents were 100% adherent having honoured all their re-fill appointments and never missing doses since commencement of ART. 14% and 1.7% of the 725 respondents were 80% and 50% adherent respectively

whereas the remaining 1.1% were 25% adherent. Observed adherence levels were statistically significant at a p-value of 0.0517. Further analysis on factors affecting dose adherence was conducted on the respondents knowledge, attitudes and practices, socio-demographic features, social support received, ARV dispensing consistency and sources of ART information and there was no significance over the adherence levels. Rather, the mechanisms adopted for adherence significantly (p-value = 0.0517) affected adherence levels.

Conclusion

The Dose Adherence Computation Model complements other methods for deducing patient's level of dose adherence by considering the long-term default frequency in addition to the short-term recall of missed doses.