Retrospective Demographic Analysis of Patients Lost to Follow-Up from Antiretroviral Therapy in Mulanje Mission Hospital, Malawi

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Abstract: Background: Long-term retention of patients on ART has become a major health challenge in Sub-Saharan Africa (SSA). In 2010 a systematic review of 39 papers found that 30% of patients were no longer taking their ARTs two years after starting treatment. In the same review, it was noted that there was a paucity of data as to why patients become lost to followup (LTFU) in SSA. This project was performed in Mulanje Mission Hospital in Malawi as part of Swindon Academy's Global Health eSSC. The HIV prevalence for Malawi is 10.3%, one of the highest rates in the world, however prevalence soars to 18% in the Mulanje. Therefore it is essential that patients at risk of being LTFU are identified early and managed appropriately to help them continue to participate in the service. Methodology: All patients on adult antiretroviral formulations at MMH, who were classified as 'defaulters' (patients missing a scheduled follow up visit by more than two months) over the last 12 months were included in the study. Demographic varibales were collected from Mastercards for data analysis. A comparison group of patients currently not lost to follow up was created by using all of the patients who attended the HIV clinic between 18th-22nd July 2016 who had never defaulted from ART. Data was analysed using the chi squared (γ^2) test, as data collected was categorical, with alpha levels set at 0.05. Results: Overall, 136 patients had defaulted from ART over the past 12 months at MMH. Of these, 43 patients had missing Mastercards, so 93 defaulter datasets were analysed. In the comparison group 93 datasets were also analysed and statistical analysis done using Chi-Squared testing. A higher proportion of men in the defaulting group was noted (γ^2 =0.034) and defaulters tended to be younger (γ^2 =0.052). 94.6% of patients who defaulted were taking Tenofovir, Lamivudine and Efavirenz, the standard first line ART therapy in Malawi. The mean length of time on ART was 39.0 months (RR: -22.4-100.4) in the defaulters group and 47.3 months (RR: -19.71-114.23) in the control group, with a mean difference of 8.3 less months in the defaulters group (χ ²=0.056). Discussion: The findings in this study echo the literature, however this review expands on that and shows the demographic for the patient at most risk of defaulting and being LTFU would be: a young male who has missed more than 4 doses of ART and is within his first year of treatment. For the hospital, this data is important at it identifies significant areas for public health focus. For instance, fear of disclosure and stigma may be disproportionately affecting younger men, so interventions can be aimed specifically at them to improve their health outcomes. The mean length of time on medication was 8.3 months less in the defaulters group, with a p-value of 0.056, emphasising the need for more intensive follow-up in the early stages of treatment, when patients are at the highest risk of

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