

Predictor Factors for Treatment Failure among Patients on Second Line Antiretroviral Therapy

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Abstract : Second line antiretroviral therapy (ART) regimen is used when patients fail their first line regimen. There are many factors such as non-adherence, drug resistance as well as virological and immunological failure that lead to second line highly active antiretroviral therapy (HAART) regimen treatment failure. This study was aimed at determining predictor factors to treatment failure with second line HAART and analyzing median survival time. An observational, retrospective study was conducted in Sungai Buloh Hospital (HSB) to assess current status of HIV patients treated with second line HAART regimen. Convenience sampling was used and 104 patients were included based on the study's inclusion and exclusion criteria. Data was collected for six months i.e. from July until December 2013. Data was then analysed using SPSS version 18. Kaplan-Meier and Cox regression analyses were used to measure median survival times and predictor factors for treatment failure. The study population consisted mainly of male subjects, aged 30-45 years, who were heterosexual, and had HIV infection for less than 6 years. The most common second line HAART regimen given was lopinavir/ritonavir (LPV/r)-based combination. Kaplan-Meier analysis showed that patients on LPV/r demonstrated longer median survival times than patients on indinavir/ritonavir (IDV/r) based combination ($p < 0.001$). The commonest reason for a treatment to fail with second line HAART was non-adherence. Based on Cox regression analysis, other predictor factors for treatment failure with second line HAART regimen were age and mode of HIV transmission.

Keywords : adherence, antiretroviral therapy, second line, treatment failure

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