A Retrospective Cross-Sectional Study on the Prevalence and Factors Associated with Virological Non-Suppression among HIV-Positive Adult Patients on Antiretroviral Therapy in Woliso Town, Oromia, Ethiopia

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Abstract: Background: HIV virological failure still remains a problem in HV/AIDS treatment and care. This study aimed to describe the prevalence and identify the factors associated with viral non-suppression among HIV-positive adult patients on antiretroviral therapy in Woliso Town, Oromia, Ethiopia. Methods: A retrospective cross-sectional study was conducted among 424 HIV-positive patient's attending antiretroviral therapy (ART) in Woliso Town during the period from August 25, 2020 to August 30, 2020. Data collected from patient medical records were entered into Epi Info version 2.3.2.1 and exported to SPSS version 21.0 for analysis. Logistic regression analysis was done to identify factors associated with viral load non-suppression, and statistical significance of odds ratios were declared using 95% confidence interval and p-value < 0.05. Results: A total of 424 patients were included in this study. The mean age (± SD) of the study participants was 39.88 (± 9.995) years. The prevalence of HIV viral load non-suppression was 55 (13.0%) with 95% CI (9.9-16.5). Second-line ART treatment regimen (Adjusted Odds Ratio (AOR) = 8.98, 95% Confidence Interval (CI): 2.64, 30.58) and routine viral load testing (AOR = 0.01, 95% CI: 0.001, 0.02) were significantly associated with virological non-suppression. Conclusion: Virological non-suppression was high, which hinders the achievement of the third global 95 target. The second-line regimen and routine viral load testing were significantly associated with virological non-suppression. It suggests the need to assess the effectiveness of antiretroviral drugs for epidemic control. It also clearly shows the need to decentralize third-line ART treatment for those patients in need.

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