



Determinants of first line antiretroviral therapy treatment failure among adult patients on ART at central Ethiopia: un-matched case control study

Diriba Mulisa^{1*}, Mulugeta Tesfa², Getachew Mullu Kassa² and Tadesse Tolossa¹

Lecturer at Wollega University, School of Nursing and Midwifery department in Ethiopia

Abstract:

Background: In 2018 in Ethiopia, magnitude of human immunodeficiency virus Acquired Immunodeficiency Syndrome treatment failure was 15.9% and currently the number of patient receiving second line antiretroviral therapy (ART) is more increasing than those taking first line ART. Little is known about the predictors of treatment failure in the study area. Therefore; more factors that can be risk for first line ART failure have to identified to make the patients stay on first line ART for long times. Consequently, the aim of this study was to identify determinants of first line ART treatment failure among patients on ART at St. Luke referral hospital and Tulubolo General Hospital, 2019.

Methods: A 1:2 un-matched case-control study was conducted among adult patients on active follow up. One new group variables was formed as group 1 for cases and group 0 for controls and then data was entered in to Epi data version 3 and exported to STATA SE version 14 for analysis. From binary logistic regression variables with p value ≤ 0.25 were a candidate for multiple logistic regression. At the end variables with a p-value ≤ 0.05 were considered as statistically significant.

Result: A total of 350 (117 cases and 233 controls) patients were participated in the study. Starting ART after two years of being confirmed HIV positive (AOR= 3.82 95% CI 1.37,10.6), nevirapine (NVP) based initial ART (AOR=2.77,95%CI 1.22,6.28) having history of lost to follow up (AOR 3.66 ,95%CI 1.44,9.27) and base line resourceful infection (AOR= 1.97,95%CI 1.06,3.63), staying on first line ART for greater than five years (AOR= 3.42,95%CI 1.63,7.19) and CD4 less than 100cell/ul (AOR= 2.72 ,95%CI 1.46,5.07) were independent determinants of first line ART treatment failure.

Conclusion: Lost to follow up, staying on first line ART for greater than five years, presence of opportunistic infections, NVP based NNRTI, late initiation of ART are



determinant factors for first line ART treatment failure. The concerned bodies have to focus and act on those identified factors to maintain the patient on first line ART.

Key word Clinical failure, Ethiopia, Treatment failure

Biography:

Diriba Mulisa is a lecturer at Wollega University in Ethiopia. He have also Learned first degree in wollega university and at the end of my graduation the university employed so that he have to their lecturer. He have learned second degree in Debre Markos university. Now, he has teaching as a lecturer in Wollega university in Ethiopia.

Publication of speakers:

1. Hailu GG, Hagos DG, Hagos AK, Wasihun AG, Dejene TA. Virological and immunological failure of HAART and associated risk factors among adults and adolescents in the Tigray region of Northern Ethiopia. PloS one. 2018.
2. ENDALAMAW, Diriba Mulisa, A., MEKONNEN, M., GEREMEW, D., AMBAW, F., TESERA, H. & HABTEWOLD, T. D. 2018. Evidence that poor HAART adherence has a great impact on HIV/AIDS treatment failure more than severity of illness and opportunity of infection in Ethiopia: Systematic review and meta-analysis.
3. Gesesew HA, Diriba Mulisa ,Ward P, Woldemichael K, Mwanri L. Immunological failure in HIV-infected adults from 2003 to 2015 in Southwest Ethiopia: a retrospective cohort study. BMJ open. 2018

World Summit on Infectious Diseases and Therapeutics | March 19-20, 2020 | London, UK

Citation: Diriba Mulisa; Determinants of first line antiretroviral therapy treatment failure among adult patients on ART at central Ethiopia: un-matched case control study ; Infectious Diseases 2020; March 19-20, 2020; London, UK