



Baseline CD4 T Cell Level Predicts Recovery Rate after Initiation of ART in HIV Infected Nigerians

Olubusuyi M. Adewumi, Georgina N. Odaibo & Olufemi D. Olaleye

To cite this article: Olubusuyi M. Adewumi, Georgina N. Odaibo & Olufemi D. Olaleye (2016) Baseline CD4 T Cell Level Predicts Recovery Rate after Initiation of ART in HIV Infected Nigerians, *Journal of Immunoassay and Immunochemistry*, 37:2, 109-118, DOI: [10.1080/15321819.2015.1057738](https://doi.org/10.1080/15321819.2015.1057738)

To link to this article: <https://doi.org/10.1080/15321819.2015.1057738>



Accepted author version posted online: 11 Jun 2015.
Published online: 11 Jun 2016.



Submit your article to this journal [↗](#)



Article views: 88



View Crossmark data [↗](#)

BASELINE CD4 T CELL LEVEL PREDICTS RECOVERY RATE AFTER INITIATION OF ART IN HIV INFECTED NIGERIANS

Olubusuyi M. Adewumi, Georgina N. Odaibo, and Olufemi D. Olaleye

Department of Virology, College of Medicine, University of Ibadan, Ibadan, Oyo State, Nigeria

□ *The most characteristic immunologic disorder in HIV infection is the progressive loss of CD4 T lymphocytes, thus, it remains the most important and commonly used marker for monitoring of immune status of HIV-infected individuals. This study monitored CD4 T lymphocyte cell dynamics among HIV patients on ART, and consequently defined an optimal baseline level required for enhanced ARV treatment. Ninety-eight ($M = 33$; $F = 65$) out of 106 consenting HIV-infected ARV-naïve patients enrolled and monitored for 24 months were considered in the analysis. The patients were classified into four groups based on baseline CD4 T lymphocyte cell levels, and specific parameters were evaluated at interval. Median CD4 T lymphocyte increased from 114 (Range: 6–330) at baseline to highest 357 (Range: 15–1036) cells/ μL at 18 months of therapy. Fifty (51.0%), 58(59.2%), 75(76.5%), 69(70.4%), 63(64.3%), and 69(70.4%) doubled their preceding CD4 levels during the 3rd, 6th, 9th, 12th, 18th, and 24th months of ART, respectively. Maximum 337, 302, 360, and 475 cells/ μL of blood were attained by groups commenced on ART with baseline CD4 ≤ 50 , 51–100, 101–200, and 201–350 cells/ μL of blood, respectively. The results show that higher baseline CD4 T lymphocyte cell level correlates with enhanced restoration and plateau after commencement of ART.*

Keywords ART, baseline CD4 cell, generic, HAART, Nigeria

INTRODUCTION

The most characteristic immunologic disorder in HIV infection is the progressive loss of CD4 T lymphocytes, which are the primary target cells for HIV infection.^[1] Specifically, dysfunction and destruction of CD4 T lymphocytes lead to severe immune-depression observed in patients with HIV or AIDS.^[1] Thus, CD4 T lymphocyte level remains the most important and most commonly used marker for monitoring of immune status of

Address correspondence to Olufemi D. Olaleye, Department of Virology, College of Medicine, University of Ibadan, Ibadan, Oyo State, Nigeria. E-mail: davidoolaleye@gmail.com

Color versions of one or more of the figures in the article can be found online at www.tandfonline.com/ljii.