

10/10

MED LAB TP

**EVALUATION OF CD4 CELL COUNT IN HIV/AIDS  
PATIENT SAMPLES AT KEMRI RECEIVED FROM  
RHODES CLINIC**

**THE KENYA POLYTECHNIC UNIVERSITY COLLEGE**

**SCHOOL OF HEALTH SCIENCES AND TECHNOLOGY**

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A PROJECT SUBMITTED TO THE KENYA POLYTECHNIC UNIVERSITY COLLEGE IN  
PARTIAL FULFILLMENT FOR THE AWARD OF ORDINARY DIPLOMA IN MEDICAL  
LABORATORY SCIENCE

JULY 2010 SERIES

## ABSTRACT

With all medical technology currently underway against the spread of HIV/AIDS. A curative and vaccination measure remains far away beyond the horizon. However, KAVI researchers are on the process of trying HIV vaccine on 76 volunteer babies in October 2010. This still shows little hope in achieving a successful outcome.

The only outstanding and well known care and management of the HIV infected persons that leads to restriction of immune system and reveal disease pathogenesis is the counting of CD4 cells. On the other hand vital load can also be done but it is an expensive diagnostic method hence many of the tropical country laboratories can not afford to have this facility.

This project therefore was aimed at investigating the cells of immune system, CD4 T lymphocytes that are widely affected by HIV infection. This CD4 counts have been grouped into three categories whereby 500cells/ $\mu$ l represents acute/ primary infection phase, CD4 between 201-499 cells/ $\mu$ l represents chronic phase and CD4 count between 200cells/ $\mu$ l is final crisis/AIDS phase. In addition CD4 cells can be grouped according to guidelines as an indicator to ARV administration, CD4 cells count of less than 200 cells/ $\mu$ l should start ARV treatment CD4 cell count of 201-350 should be considered for treatment and CD4 cell count 350 and above should be deferred from treatment and observed.

This analytical research was carried out in KEMRI, sampled out 204 samples of patients from a population of about 5000 samples of HIV infected patients. The study found out that during collection 55% were female and 45% were male who were attending Rhodes chronic at the same period. 17.3% of females were in the second stage of infection while 11.3% represented males in stage two of infection.