

UNIVERSITI TEKNOLOGI MARA

**EFFECTIVENESS OF
TENOFVIR/EMTRICITABINE
VERSUS
ZIDOVUDINE/LAMIVUDINE IN
COMBINATION WITH EFAVIRENZ
IN ANTIRETROVIRAL-NAÏVE HIV-
INFECTED PATIENTS**

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Dissertation submitted in partial fulfilment of the
requirements for the degree of
Master in Clinical Pharmacy

Faculty of Pharmacy

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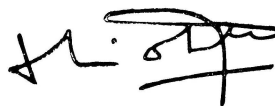
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ABSTRACT

Durable suppression of replication of the human immunodeficiency virus (HIV) depends on the use of potent, well-tolerated antiretroviral regimens to which patients can easily adhere. Combination of two NRTIs and one NNRTI is the best first line regimen in treating retroviral disease (RVD) as compared to combinations of other groups. Tenofovir and Zidovudine are the two drugs that mostly use as one of NNRTIs in combination with either Lamivudine or Emtricitabine. Review of previous literature had shown that there were conflicting data on the superiority of either regime based on virologic and immunologic response. A local, retrospective observational cohort study was conducted to evaluate the virological response (primary endpoint), immunological response and the safety profile between TDF and AZT regimens. A total of 154 ART-naïve samples from HTAR and HSB were recruited. No statistically significant differences were observed in HIV RNA suppression at 24 weeks and 48 weeks ($p = 0.407$ and $p = 0.521$, respectively). Mean difference in CD4 increments were also not significant ($p = 0.54$, 95% CI -59.97, 31.83 at week 24; $p = 0.68$, 95% CI -51.41, 33.59 at week 48). However, AZT was found with more adverse events that leads to discontinuation (p -value <0.001). There were two cases of virological failure in TDF group but the association was not significant ($p = 0.497$). Only education level was identified as predictor of therapy effectiveness. Although there was no significant difference in virological and immunological responses, TDF still has advantage over AZT because of its better safety profile.

TABLE OF CONTENTS

CONFIRMATION BY PANEL OF EXAMINERS.....	ii
AUTHOR'S DECLARATION	iii
ABSTRACT.....	iv
ACKNOWLEDGEMENT.....	v
TABLE OF CONTENTS	vi
LIST OF TABLES	ix
LIST OF FIGURES	xi
LIST OF SYMBOL, ABBREVIATION AND NOMENCLATURE.....	xii
CHAPTER ONE : INTRODUCTION	1
1.1 RESEARCH BACKGROUND.....	1
1.2 PROBLEM STATEMENT	5
1.3 RATIONALE OF THE STUDY	5
1.4 RESEARCH OBJECTIVES	6
1.4.1 Primary Objectives.....	6
1.4.2 Secondary Objectives.....	6
CHAPTER TWO : LITERATURE REVIEW	7
2.1 PRINCIPLES OF ANTIRETROVIRAL THERAPYc	7
2.2 NUCLEOSIDE/NUCLEOTIDE REVERSE TRANSCRIPTASE INHIBITORS (NRTI)	9
2.3 TIME TO INITIATE ANTIRETROVIRAL TREATMENT.....	10
2.4 EFFECTIVENESS AND SAFETY OF TDF + 3TC (OR FTC) REGIMEN COMPARED TO OTHER NRTIS COMBINATIONS.....	12
2.5 COST EFFECTIVENESS STUDIES OF REGIMEN CONTAINING TDF + 3TC/FTC.....	17
2.6 COMPARISON BETWEEN 3TC AND FTC	19