The Response to Antituberculous Drugs among Patients in Dairot Central Hospital In the Period from January 2006 to December 2009

Thesis
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List of Abbreviations

ACP	:	Acid phosphatase
AD	:	Adenovirus
ADA	:	Adenosine deaminase
AFB	:	Acid fast bacilli
AIDS	:	Acquired immunodeficiency syndrome
AMTD	:	Amplified mycobacterium tuberculosis direct(test)
ART	:	Anti retroiral therapy
BACTEC	:	Becton automated culture technology
BCG	:	Bacillus Calmette-Guerin
BMI	:	Body mass index
CD	:	Cluster of differentiation
CDC	:	Centers for disease control and prevention
CI	:	Confidence interval
CL	:	Confidence limit
CMI	:	Cell mediated immune
CSF	:	Cerebrospinal fuild
CTLs	:	Cytotoxic T-lymphocytes
DNA	:	Deoxyribonucleic aid
DOTS	:	Directly observed treatment short course
DST	:	Drug sensivity testing
DTH	:	Delayed type hypersensivity

E COLI	:	Escherichia coli
EMB	:	Ethambutol
ESAT	:	Early secretory antigenic target
ETH	:	Ethionimide
FQ	:	Fluoroquinolone
HIV	:	Human immunodeficiency virus
IFN	:	Interferon
IGRAS	:	Interferon gamma Release Assay
IL	:	Interleukin
INH	:	Isoniazid
IRIS	:	Immune reconstitution inflammatory syndrome
LJ	:	Lowestein-Jensen
LTBI	:	Latent tuberculosis infection
M. Tuberculosis:		Mycobacterium tuberculosis
M.Bovis	:	Mycobacterium bovis
MDR-TB	:	Multi Drug Resistant tuberculosis
MGIT	:	Mycobacterial Growth Indicator Tube
MHC	:	Major histocompatibility
MODS	:	Microscopic observation of drug susceptibility
MOHB	:	Ministry of health and population.
MRC	:	Medical research council
M-RNA	:	Messenger ribonucleic acid
MTD	:	Mycobacterium Tuberculosis Direct(test)

NAAT	:	Nucleic acid amplification test
NADH	:	Nicotinamide adenine binucleotide
NHS	:	National health survey
NIAID	:	National Institute Of Allergy And Infectious Diseases
NTP	:	National tuberculosis control programme
PAS	:	Para-aminosalicilic acid
PCR	:	Polymeraise Chain Reaction
PPD	:	Purified Protein Derivative
PTB	:	Pulmonary tuberculosis
R BCG	:	Recombinant BCG
R-RNA	:	Ribosomal RNA
SCC	:	Short course chemotherapy
SCID	:	Sever compined immunodifficency
SM	:	Streptomycin
TB	:	Tuberculosis
TGF-B	:	Transforming growth factor beta
TH	:	T helper
TNF-B	:	Tumor necrosis factor-B
TST	:	Tuberculin skin test
USSR	:	Union of soviet socialis republic
WHO	:	World Health Organization
XDR-TB	:	Extensive drug –resistant tuberculosis

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Introduction

Tuberculosis or **TB** (short for tubercles bacillus) is a common and often deadly infectious disease caused by various strains of mycobacteria, usually *Mycobacterium tuberculosis* in humans (**Kumar et al., 2007)**. Tuberculosis usually attacks the lungs but can also affect other parts of the body. It is spread through the air, when people who have the disease cough, sneeze, or spit (**Konstantinos, 2010)**. Most infections in humans result in an asymptomatic, latent infection, and about one in ten latent infections eventually progresses to active disease, which, if left untreated, kills more than 50% of its victims.

The classic symptoms are a chronic cough with blood-tinged sputum, fever, night sweats, and weight loss. Infection of other organs causes a wide range of symptoms. Diagnosis relies on radiology (commonly chest X-rays), a tuberculin skin test, blood tests, as well as microscopic examination and microbiological culture of bodily fluids. Treatment is difficult and requires long courses of multiple antibiotics. Contacts are also screened and treated if necessary. Antibiotic resistance is a growing problem in (extensively) multi-drug-resistant tuberculosis. Prevention relies on screening programs and vaccination, usually with Bacillus Calmette-Guérin vaccine.

A third of the world's population are thought to be infected with *M. tuberculosis*, **(Jasmer et al., 2002)** and new infections occur at a rate of about one per second. The proportion of people who become sick with tuberculosis each year is stable or falling worldwide but, because of population growth, the absolute number of new cases is still increasing **.** In 2007 there were an estimated 13.7 million chroni c active cases, 9.3 million new cases, and 1.8 million deaths, mostly in developing countries **(World Health Organization, 2009).** In addition, more people in the developed world are contracting tuberculosis because their immune systems are compromised by immunosuppressive drugs, substance abuse, or AIDS. The distribution of tuberculosis is not uniform across the globe; about 80% of the population in many Asian and African countries test positive in tuberculin tests, while only 5-10% of the US population test positive **(Kumar et al., 2007)**

Aim of the work

The present study aims to assess the response to antituberculous drug among tuberculous patients and detection of drug resistant cases in Dairot city from January 2006 to December 2009.