DEPARTMENT OF FAMILY MEDICINE &
PRIMARY HEALTH CARE
UNIVERSITY OF LIMPOPO (MEDUNSA CAMPUS)

TITLE OF STUDY: EVALUATION OF DIAGNOSIS AND TREATMENT OF PULMONARY TUBERCULOSIS AMONG ADULT PATIENTS IN MATLALA DISTRICT HOSPITAL IN GREATER MARBLE HALL SUB-DISTRICT IN LIMPOPO PROVINCE.

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SUBMITTED: JULY 26TH, 2010

DECLARATION
I, Otisile Mayokun Oluseun, declare that this research report is my own work. It is being submitted to the University of Limpopo (Medunsa Campus), Limpopo in partial fulfillment of the requirements for the award of the Masters of Medicine in Family Medicine (Mmed Fammed). It has not been submitted and will not be submitted for any degree or examination in this or any other university.

Signed

Submitted on 25th of July, 2010
DEDICATION

THIS RESEARCH REPORT IS DEDICATED TO GOD ALMIGHTY AND TO MY FAMILY
ACKNOWLEDGEMENT

I wish to express my sincere appreciation to my supervisor, Dr. G.J.O. Marincowitz, for his support and guidance throughout the course of this research work. I also appreciate Dr I. Govender, Dr. Clark, Dr. Nkambule, Mrs D. Pretorius and Mrs L. Erasmus for their support and encouragement. I will forever be indebted to you all. Thanks also to Mr. S. Ntuli for his professional help as a statistician.

My gratitude to Prof. O. Ogubanjo who has been a source of inspiration to me.

I also want to thank the nurses at the clinics, members of the Infection control team at Matlala district hospital most especially Matron P. Makola, Sister Matoto and the District Tuberculosis Coordinator, Mr. Shinwana.

Last but not the least, my gratitude to my colleagues and friends for believing in me.
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>TB</td>
<td>Tuberculosis</td>
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<tr>
<td>PTB</td>
<td>Pulmonary tuberculosis</td>
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<tr>
<td>HIV</td>
<td>Human immunodeficiency virus</td>
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<tr>
<td>AIDS</td>
<td>Acquired immune deficiency syndrome</td>
</tr>
<tr>
<td>MDR-TB</td>
<td>Multi drug resistant tuberculosis</td>
</tr>
<tr>
<td>XDR-TB</td>
<td>Extensive drug resistant tuberculosis</td>
</tr>
<tr>
<td>WHO</td>
<td>World health organization</td>
</tr>
<tr>
<td>DOTS</td>
<td>Directly observed therapy short course</td>
</tr>
<tr>
<td>MTB</td>
<td>Mycobacterium tuberculosis</td>
</tr>
<tr>
<td>NTCP</td>
<td>National tuberculosis control programme</td>
</tr>
<tr>
<td>HBCW</td>
<td>Home based care worker</td>
</tr>
<tr>
<td>MDG</td>
<td>Millennium development goal</td>
</tr>
<tr>
<td>HAART</td>
<td>Highly active anti-retroviral therapy</td>
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DEFINITION OF TERMS

DOTS: A treatment strategy in which a treatment supporter (a health worker or trained lay person not related to the patient) watches the patient swallows anti-TB drugs over the course of treatment.

NEW TB CASE: A patient who has never had TB treatment or has taken treatment for less than four weeks.

RETREATMENT TB CASE: A patient previously treated for TB for more than four weeks.

CURED: A patient with positive sputum initially who completed treatment with negative sputum in the last month of treatment and on at least one previous occasion.

TREATMENT COMPLETED: A patient who has completed treatment and is clinically well, but does not meet the criteria for cure or failure.

DIED: A patient who dies for any reason during treatment for TB.

DEFAULTED: A patient whose treatment was interrupted for two consecutive months.

FAILURE: A patient whose sputum remains positive or became positive again (smear or culture) at least five months after starting treatment.

TRANSFERRED OUT: A patient who has been transferred to another reporting unit and his/her treatment outcome is not known.

MULTI-DRUG RESISTANT TB (MDR-TB): A patient with mycobacterium tuberculosis that is resistant to two or more of the following drugs: Isoniazid, Rifampicin, Ethambutol and Streptomycin.

EXTREME-DRUG RESISTANT TB (XDR-TB): A patient with MDR-TB that is resistant to at least three of the second-line drugs.
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ABSTRACT

Tuberculosis (TB) is a major health problem in South Africa especially in this era of high prevalence of human immune deficiency virus (HIV) infection. South Africa is currently ranked fourth among the twenty-two high burden countries worldwide with an incidence of 940/100 000 population/year and mortality of 218/100 000 population/year. The notational tuberculosis control programme NTCP) was established in response to this growing burden. The aim of this study is to evaluate the TB programme at Matlala District hospital and to make recommendations that could improve its effectiveness.

The study was a descriptive cross-sectional study. Retrospective data of all adults ≥15yrs diagnosed with pulmonary TB (PTB) were collated from the TB register and patients’ records between 01/01/2008 and 31/12/2008. Children <15years and extra-pulmonary TB were excluded because of the challenges in diagnosis. Follow-up was done until end of treatment to determine the outcome. The outcomes were cured, completed treatment, failed treatment, died, defaulted treatment, transferred out and not evaluated based on the NTCP criteria.

A total of 482 patients (266 females and 216 males) were included in the study with a median age 40.91 (standard deviation (SD) 14.65; 95% CI 39.59-42.22). Women with mean age 38.35 years (SD 15.03; 95% CI 36.54-40.16) were significantly younger (P value <0.00001) than men with mean age 44.05 (SD 13.55; 95% CI 42.23-45.87). There were 399 (82.78%) new cases and 83 (17.22%) re-treatment cases. 130 (26.97%) patients were co-infected with HIV while 236 (48.96%) patients did not know their status. In all, 193 (40%) were cured, 63 (13.07%) completed treatment, 4 (0.83%) failed treatment, 43 (8.92%) died, 27 (5.60%) defaulted, 141 (29.25%) were transferred out and 11 (2.28%) were not evaluated. The treatment success rate was 53.11%.
The treatment success rate in this study is well below the 85% target in the NTCP. A large number of the patients did not know their status and the outcome could not be determined in significant number of patients (not evaluated and transferred out). A systematic referral and recording process; and a collaborative effort between TB and HIV services is therefore necessary to face this challenge. It may also be important to re-open the TB ward to prevent nosocomial transmission.
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