

UNIVERSITI TEKNOLOGI MARA

**MANAGEMENT OF DIABETES MELLITUS IN TUBERCULOSIS PATIENTS
IN MALAYSIA:
A RETROSPECTIVE STUDY**

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ABSTRACT

The prevalence of DM and TB as well as DM in TB cases keeps increasing every year in most of the countries around the world. Many studies have been done in order to explore the association between DM and TB. Due to this converging, WHO and the Union have come out with a guideline named Collaborative Framework for Care and Control of Tuberculosis and Diabetes to guide and educate people in health care setting to manage TB-DM patients. In this study, 100 of patients' medical files were reviewed to assess the prevalence of DM in TB patients, to review the characteristics of TB only and TB-DM patients and also to investigate the current management of DM in TB patients. The prevalence of DM in TB patients was 18%. The number of TB patients was found to be almost equal for both male and female which were 53% and 47% patients respectively. The mean age in TB-DM was 55.5 years which is significantly higher compared to TB only patients which only 39.5. Among all, Malay TB patients were the highest denoted with 49%, followed by other races (31%), Chinese (16%) and Indian (4%). Most of them were married and employed. Even though TB patients were found to not having critical social habit such as smoking and alcoholic, but both were contributing factors to TB and DM which need to be concerned of. Comparing to TB only patients and TB-DM patients, the percentage of TB-DM patients having co-morbid condition was higher (61.1%) as compared to TB only patients with only 23.3%. In addition, there was lack of regular blood glucose monitoring at the TB clinic where out of all TB patients, 43% of them were not screened with RBS and insulin was underutilized in the management of DM in TB patients.

CHAPTER 1

INTRODUCTION

1.1 Background of Study

Tuberculosis (TB) and Diabetes Mellitus (DM) have been the well-known diseases for years by most of people around the world, not only among the health care professionals but also layman. Every year, the prevalence of TB and DM cases keep increasing in most of the countries around the world. This problem was supported by a shocking statement announced on TB Day on March 23, 2012 by International Union against Tuberculosis and Lung Diseases (the Union) and the World Diabetes Foundation, saying that with the high number of DM patients (which is expected to reach 552 million by 2030), about 366 million of people in the world are at higher risk of developing TB by 2030. Furthermore, the rising in the prevalence of them in low-income and middle-income countries is influenced by the changing of life style. This phenomenon is worsening by the association between TB and DM either by pharmacological events or even by physiological events.

Actually, the convergence of TB and DM has been studied and reviewed since fifty years back. In fact, there are so many books have been written which focusing on these diseases and their association such as *Joslin's Diabetes Mellitus (2005)* and *Pulmonary Tuberculosis: New Insight of Health care Professionals (2013)*. Besides that, the prevalence of TB and DM are also being affected by the lacking in knowledge in the management of TB-DM patients in most of the health care settings. For that reason, World Health Organization (WHO) and the Union have came out with a guideline named *Collaborative Framework for Care and Control of Tuberculosis and Diabetes*. This framework is aimed to guide and educate all people in health care settings on how to manifest a standardized management to all TB-DM co-morbidities patients.