

# Profiles and Factors Associated with Poor Glycemic Control Among Inpatients with Diabetes Mellitus Type 2 as a Primary Diagnosis in a Teaching Hospital

Aniza Ismail<sup>1</sup>, Leny Suzana Suddin<sup>1,5</sup>, Saperi Sulong<sup>2</sup>, Zafar Ahmed<sup>3</sup>, Nor Azmi Kamaruddin<sup>4</sup>, Norlela Sukor<sup>4</sup>

<sup>1</sup>Departments of Community Health, <sup>2</sup>Health Information, <sup>4</sup>Medicine, Universiti Kebangsaan Malaysia, Bangi, <sup>3</sup>Department of Community Medicine and Public Health, Universiti Malaysia Sarawak, Sarawak, <sup>5</sup>Faculty of Medicine, Universiti Teknologi MARA, Selangor, Malaysia

## ABSTRACT

**Context:** Diabetes mellitus is a growing health problem in most countries. In Malaysia, there was an increase in prevalence over the years. This makes diabetes also a growing concern in Malaysia, which warrants strengthening of the prevention and control programme. **Aims:** This paper aims to describe the profiles of diabetes mellitus type 2 in tertiary setting and to identify the risk factors for high level of HbA1c among the study population. The findings will give a glimpse on current status of diabetes in our country and may reflect the achievement of the country in combating this disease. **Settings and Design:** A cross-sectional study was conducted in UKM Medical Centre. **Methods and Material:** Medical records of patient with E11 ICD-10 code were collected using Case Report Form. **Statistical Analysis Used:** Descriptive analysis done of mean and median while test of association were done using Spearman correlation and logistic regression. **Results:** The results showed that majority of inpatients of DMT2 showed mean age of 58.8 + 12.6 years and most were males (56.7%) with secondary level of education (41.7%). Median duration of disease was 12.0 + 11.0 years with median HbA1c level of 8.9 ± 4.4%. Only small proportion of patients achieved the desired level of HbA1c <6.5% (21.3%) and significant association was found with tertiary level of education [AOR=0.10, 95%CI=0.01-0.96] and with type of anti-diabetic therapy [AOR=15.90, 95%CI=2.03-124.30]. **Conclusions:** In conclusion, diabetes mellitus type 2 inpatients still showed unsatisfactory glycemic control and holistic approach using health education should be advocated continuously in the future in view of education being one of the predictors for the good HbA1c outcome.

**Keywords:** Diabetes mellitus type 2 (DMT2), glycemic control, HbA1c

## Introduction

Diabetes mellitus is a major health problem in most countries.<sup>(1)</sup> This chronic condition is a major risk factor

This is an open access article distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.

**For reprints contact:** reprints@medknow.com

**How to cite this article:** Ismail A, Suddin LS, Sulong S, Ahmed Z, Kamaruddin NA, Sukor N. Profiles and factors associated with poor glycemic control among inpatients with diabetes mellitus type 2 as a primary diagnosis in a teaching hospital. Indian J Community Med 2016;41:208-12.

Access this article online	
Quick Response Code:	Website: www.ijcm.org.in
	DOI: 10.4103/0970-0218.183590

### Address for correspondence:

Associate Prof. Dr. Aniza Ismail, 1<sup>st</sup> Floor, Department of Community Health, Faculty of Medicine, Universiti Kebangsaan Malaysia (UKM), Jalan Yaacob Latiff, Cheras - 56000, Kuala Lumpur, Malaysia. E-mail: aniza@ppukm.ukm.edu.my

**Received:** 25-06-15, **Accepted:** 10-09-15