

ABSTRACT 02

Clinical Insight into Type 2 Diabetes Mellitus: A Retrospective Study from Hospital Sultan Abdul Aziz Shah (HSAAS), Universiti Putra Malaysia's Teaching Hospital

Muhammad Fikry Ahmad¹, Suhaili Abu Bakar¹, Ng Ooi Chuan^{2,3}, Sharifah Sakinah Syed Alwi¹

Objectives: This retrospective study aims to provide comprehensive clinical, complications and demographic insight into the management and outcomes of T2DM patients at Hospital Sultan Abdul Aziz Shah (HSAAS), Universiti Putra Malaysia. **Methods:** The study analysed medical records of T2DM patients from January 2020 to August 2024, focusing on patient demographics, glycemic control, diabetes-related complications, and treatment regimens. Statistical analysis were performed to identify correlations between patient characteristics and clinical outcomes. **Results:** A total of 355 patient records were reviewed, encompassing a diverse patient population with 55.7% male and a mean age of 61.3 years. More than 60% of the total patients presented with a history of hypertension, and 30.9% had dyslipidemia. As measured by HbA1c levels, glycemic control showed that only 40% of patients achieved the target of <7.0%, where diabetic retinopathy was observed in 27.6% of patients, nephropathy in 22.5%, and neuropathy in 20%. Pharmacological management predominantly included metformin (77%), followed by sulfonylureas (59%), and newer agents such as SGLT2i (32%) and GLP-1 Ra (24%). Insulin therapy was initiated in 33% of the cases, primarily in those with poor glycemic control or long-standing diabetes. Lifestyle interventions, though recommended, were suboptimal, with less than 20% of patients adhering to structured diet and exercise programs. **Conclusion:** The findings underscore the challenges in achieving optimal glycemic control and the high burden of diabetes-related complications among T2DM patients at HSAAS. The study calls for enhanced patient education, more aggressive management strategies, and the incorporation of newer antidiabetic agents to improve clinical outcomes, which serves as a crucial step in understanding the local epidemiology of T2DM and highlights the need for tailored interventions to address this growing healthcare burden.

Keywords: Type 2 Diabetes Mellitus, Personalized treatment, Demographic and Clinical, Diabetes-related complications

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1. Department of Biomedical Science, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia, Serdang 43400, Malaysia
2. Department of Medicine, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia, Serdang 43400, Malaysia
3. Department of Medical Specialist, Hospital Sultan Abdul Aziz Shah, Universiti Putra Malaysia, Serdang 43400, Malaysia

Correspondence to: Assoc. Prof. Dr. Suhaili Abu Bakar @ Jamaludin, Senior Lecturer Department of Biomedical Science, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia. Email: suhaili_ab@upm.edu.my