

Factors Associated with Poor Glycaemic Control Among Patients With Type 2 Diabetes Mellitus at Gatundu Level 5 Hospital, Kiambu County, Kenya

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Abstract

Background: Diabetes Mellitus poses a significant global public health concern, marked by a surge in morbidity and mortality rates. Its incidence and prevalence have witnessed a consistent rise over recent decades, with a projected rise. Occurrence of complications is primarily attributed to poor glycemic control, which leads to diabetes-related complications, among them retinopathy, atherosclerosis, renal complications, limb amputations, as well as life threatening emergencies; Diabetes Ketoacidosis (DKA) and Hyperosmolar Hyperglycaemic State (HHS).

Objectives: To determine the prevalence of and factors linked to poor glycemic control among Type 2 Diabetes Mellitus patients at Gatundu Level 5 in Kiambu County, Kenya.

Methodology: This was a cross-sectional study conducted between May and June 2022. Patients were selected via systematic sampling, interviewer-administered semi-structured questionnaires were completed and files reviewed for recorded random blood sugar. Data analysis was done using SPSS V25. Chi-square test and t-test were employed to identify factors associated with poor glycemic control, while logistic regression estimated the odds ratio (UOR), while ethical considerations were diligently observed.

Results: One hundred and ninety seven participants were selected. The study found that a third of the participants (36%), (95% CI: 0.295 -0.4295), exhibited poor glycemic control, while the mean random blood sugar was 10.8mmol/l. The age of the participants was significantly associated with poor glycemic control ($p = 0.012$), revealing a 3% decrease in the risk of PGC with each year noting increase in age. Duration of disease ($p = 0.007$), and medication non adherence, (missing medication due to reasons other than forgetting ($p = 0.03$) and stopping medication without telling the healthcare provider ($p = 0.049$), ($p = 0.03$), were also significantly linked to poor glycemic control.

Implications: The study not only addresses the critical issue of poor glycaemic control but also contributes to bridging existing knowledge gaps in identifying factors hindering euglycemia.

Conclusion/Recommendations: Findings underscore the need for targeted interventions, particularly among the younger age group, and emphasize the importance of increasing awareness regarding factors influencing PGC, which also impact medication adherence.

Key words: Diabetes mellitus type 2, Glycemic control, HBA1C, Haemoglobin A1C, Poor glycemic control