

Comparison between Glycated Hemoglobin and Blood Glucose in Monitoring Diabetic Patients at Point of Care Testing

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ABSTRACT

Point of care testing is a mode of testing where immediate laboratory tests are performed on the patient at the site where healthcare is provided close to the patient. Diabetes mellitus type 1 and 2 can be monitored using point of care kits for random blood glucose and glycated hemoglobin. The aim of the study was to compare point of care kits for random blood glucose with that of glycated hemoglobin in monitoring diabetes mellitus.

A purposeful randomized study was carried out at the Nyeri Provincial General Hospital on 157 patients attending diabetes clinic. On monitoring random blood glucose of these patients ranged from 3.0 – 36.1mmol/L. 31.3%, 24.2% and 43.9% of the patients had controlled borderline and uncontrolled diabetes mellitus in all age groups. Glycated hemoglobin (HbA1c) glycemic control of the same patients was found to be ideal (HbA1c: <7%) at 26%, good (7.1 – 7.9%) at 12.7% and fair (8.0 – 8.9%) at 10.2%. The correlation between glycated hemoglobin and random blood glucose was $r=0.66$, $p<0.05$.

It is necessary to perform the two tests in combination for monitoring and evaluation of severity during point of care testing for better management of diabetes mellitus.