



**Taiwanese Association of Diabetes Educators**  
**14<sup>th</sup> TADE ANNUAL MEETING**  
**POSTER PRESENTATION**  
**Establishing the Concept of Quality Control for Blood Glucose Monitoring in**  
**Diabetic Patients**

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**Purpose:**

Doctors usually adjust medications according to the measured values of Self-Monitoring of Blood Glucose (SMBG) in patients with diabetes disease. However, inaccurate BG meter, stripes or improper operation will influence the accuracy of measured result. Hence, providing doctors accurate measurements is a key step. In this study, Changhua Christian Hospital (CCH) evaluated the quality control of educational intervention for BG measurement. We anticipated that the correct concept of quality control and accurately measured operation will carry out SMBG in patients effectively and improve diabetes patients' health.

**Method:**

86 males and 70 females subjects with diabetes disease (Type 1: 12; Type2: 144) have participated in this quality control of educational intervention experiment (since Nov. 2008 till Apr. 2009). The diabetes educator notified the participants to carry their own BG meters and stripes to hospital on a regular schedule. The diabetes educator executed BG stripes QC test for the participants, and exemplified the standard of protocol of BG meters operation to them. Once the QC test was unqualified, the BG stripes would be renewed. The progress of execution and the interaction between quality control of educational intervention and the condition of SMBG were recorded.

**Result:**

12 out of 231 cases were unqualified on the QC test. And the causes were as follows: the stripes were unpacked over three months (7 cases); improper personal operation (3 cases); the moisty strips because of improper storage (1 case); defective strips (1 case). The major medical histories of the participants were under five years (36.24%); 6-10 years (19.46%); 11-15 years (19.46%); 16-20 years (13.42%); 21-30 years (9.40%). And the percentage of the subjects which have diabetes disease over 31 years was 2.01%. In the progress of this educational intervention, 107 subjects went back to hospital once, 29 subjects had going back to hospital twice, 14 subjects had going back for three times and 6 subjects for



four times. Based on the monthly quality control, it was revealed that most participants were taking step forward accepting this concept of quality control.

**Conclusion:**

The result of this study have demonstrated that: the interaction between the diabetes educators and the patients who participated in this experiment will increase significantly. The diabetes educator can frequently provide correct operation and concept to strengthen the patients' ability of SMBG. And the exact effect of this program will be evaluated by checking the condition of SMBG in patients with diabetes disease.

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