Abstract

Self-monitoring of blood glucose (SMBG) is clearly correlated with increased life expectancy and quality of life in type 2 diabetic patients. Objective: The objective of our study was to record and assess the errors patients make in preparing, performing, and processing self-monitoring of blood glucose (SMBG). Furthermore, the study aimed to determine to what extent a single standardized SMBG instruction session in a community pharmacy might reduce the number of patients making errors or the number of errors per patient. Methods: Between May and October 2005, SMBG of 462 randomly selected patients with type 2 diabetes was monitored in 32 pharmacies specialized in diabetes care. The patients performed blood glucose self-tests using their own blood glucose meters. Self-testing was monitored using a standardized documentation sheet on which any error made during the performance of the test was recorded. If necessary, patients were instructed in the accurate operation of their meter and the use of the necessary equipment. Additionally, patients obtained written instructions. Six weeks later, assessment of the quality of patients SMBG was repeated. Results: During the first observation, 383 patients (83%) made at least one mistake performing SMBG. By the time of the second observation, this frequency had fallen to 189 (41%) (p<0.001). The average number of mistakes fell from 3.1 to 0.8 per patient. Mistakes that may potentially have led to inaccurate readings were initially recorded for 283 (61%) and at study end for 110 (24%) patients (p<0.001). Conclusion: It is important to periodically instruct type 2 diabetic patients in the proper SMBG technique in order to ensure accurate measurements. In this study it was shown that community pharmacies specialized in diabetes care can provide this service effectively.

Keywords

Patient education. Community pharmacy services. Germany.