

Integrated Self-Monitoring of Blood Glucose System: Handling Step Analysis

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Abstract

Self-monitoring of blood glucose (SMBG) implicates a number of handling steps with the meter and the lancing device. Numerous user errors can occur during SMBG, and each step adds to the complexity of use. This report compares the required steps to perform SMBG of one fully integrated (the second generation of the Accu-Chek® Mobile), three partly integrated (Accu-Chek Compact Plus, Ascensia® Breeze®2, and Accu-Chek Aviva), and six conventional (Bayer Contour®, Bayer Contour USB, BGStar™, FreeStyle Lite®, OneTouch® Ultra® 2, and OneTouch Verio™Pro) systems. The results show that the fully integrated system reduces the number of steps to perform SMBG. The mean decrease is approximately 70% compared with the other systems. We assume that a reduction of handling steps also reduces the risk of potential user errors and improves the user-friendliness of the system.

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Abbreviations: (BG) blood glucose, (SMBG) self-monitoring of blood glucose

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