

Randomized Studies Are Needed to Assess the True Role of Self-Monitoring of Blood Glucose in Noninsulin-Treated Type 2 Diabetes

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Abstract

Numerous trials have been conducted to assess the utility of self-monitoring of blood glucose (SMBG) in noninsulin-treated type 2 diabetic (T2DM) patients. Although recent meta-analyses support the benefits of SMBG, the clinical utility of SMBG in this population remains controversial due to a lack of large, randomized controlled trials. Much of the skepticism regarding SMBG in noninsulin-treated T2DM may stem from a misapplication or misunderstanding of the true role of SMBG. The benefits of SMBG are realized only when both the patient and the health care provider (HCP) know how and are willing to monitor, interpret, and respond appropriately to acute glucose excursions and patterns of glycemia identified through SMBG. Optimal utilization of SMBG requires that patients be trained and motivated to accurately perform SMBG at the time and frequency prescribed, accurately interpret the data they obtain, act upon the information when appropriate, and consistently document results for later review with their HCP. HCPs must be willing and able to routinely monitor SMBG data and make appropriate adjustments in therapy. Numerous studies are needed to evaluate the true value and utility of SMBG within the diverse T2DM population to ensure that resources for diabetes management can be used efficiently. This article identifies and discusses key factors to consider for the design of randomized studies that can provide a foundation upon which HCPs and health care systems may reevaluate their current strategies/protocols and incorporate the learnings into more effective approaches to patient care.

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Abbreviations: (A1C) hemoglobin A1c, (HCP) health care provider, (NSM) no self-monitoring, (SMBG) self-monitoring of blood glucose, (SMUG) self-monitoring of urine glucose, (T1DM) type 1 diabetes mellitus, (T2DM) type 2 diabetes mellitus

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