Blood Glucose Pattern Management in Diabetes: Creating Order from Disorder

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Abstract

Background:

Self-monitoring of blood glucose (SMBG) is the most accessible way to assess glycemic patterns, and interpretation of these patterns can provide reasons for poor glycemic control and suggest management strategies. Furthermore, diabetes management based on blood glucose (BG) patterns is associated with improved patient outcomes. The aim of this review is therefore to evaluate the impact of pattern management in clinical practice.

Methods:

We included a review of available literature, a discussion of obstacles to implementation of SMBG and pattern management, and suggestions on how clinicians and patients might work together to optimize this management feature.

Results:

The literature review revealed eight publications specifically describing structured approaches to SMBG and pattern management. Specific information on how SMBG might be structured to detect BG patterns, however, remains limited. Barriers to pattern management include not just practical reasons, but emotional and psychological reasons as well.

Conclusions:

Patterns are not always easy to detect or interpret, but on-meter and web-based tools can support both patients and clinicians. Ultimately, successful pattern management requires education and mutual commitment from the clinician and patient—ongoing collaboration is needed to obtain, review, and interpret SMBG values and to make changes based on the patterns.

J Diabetes Sci Technol 2013;7(6):1575–1584

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