Recommendations for Standardizing Glucose Reporting and Analysis to Optimize Clinical Decision Making in Diabetes: The Ambulatory Glucose Profile


Abstract

Underutilization of glucose data and lack of easy and standardized glucose data collection, analysis, visualization, and guided clinical decision making are key contributors to poor glycemic control among individuals with type 1 diabetes mellitus. An expert panel of diabetes specialists, facilitated by the International Diabetes Center and sponsored by the Helmsley Charitable Trust, met in 2012 to discuss recommendations for standardizing the analysis and presentation of glucose monitoring data, with the initial focus on data derived from continuous glucose monitoring systems. The panel members were introduced to a universal software report, the Ambulatory Glucose Profile, and asked to provide feedback on its content and functionality, both as a research tool and in clinical settings. This article provides a summary of the topics and issues discussed during the meeting and presents recommendations from the expert panel regarding the need to standardize glucose profile summary metrics and the value of a uniform glucose report to aid clinicians, researchers, and patients.


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Abbreviations: (ADA) American Diabetes Association, (AGP) ambulatory glucose profile, (AUC) area under the curve, (CGM) continuous glucose monitoring, (CV) coefficient of variation, (FDA) Food and Drug Administration, (GV) glycemic variability, (HbA1c) glycated hemoglobin, (IDC) International Diabetes Center, (IQR) interquartile range, (SD) standard deviation, (SMBG) self-monitoring of blood glucose, (T1D Ex) T1D Exchange Clinical Registry, (T2DM) type 2 diabetes mellitus, (TIR) time in range

Keywords: ambulatory glucose profile, continuous glucose monitoring, insulin, type 1 diabetes mellitus

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