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

Richard M. Bergenstal, M.D.,[1] Andrew J. Ahmann, M.D.,[2] Timothy Bailey, M.D., A.M.C.R.,[3]
Roy W. Beck, M.D., Ph.D.,[4] Joan Bissen, R.D.,[1,5] Bruce Buckingham, M.D.,[6] Larry Deeb, M.D.,[7]
Robert H. Dolin, M.D.,[8] Satish K. Garg, M.D.,[9] Robin Goland, M.D.,[10] Irl B. Hirsch, M.D.,[11]
David C. Klonoff, M.D., FACP,[12] Davida F. Kruger, M.S.N., A.P.N.-B.C., B.C.-A.D.M.,[13]
Glenn Matfin, M.B., Ch.B., M.Sc. (Oxon).,[1] Roger S. Mazze, Ph.D.,[1]
Beth A. Olson, B.A.N., R.N., C.D.E.,[1] Christopher Parkin, M.S.,[14] Anne Peters, M.D.,[15]
Margaret A. Powers, Ph.D., R.D., C.D.E.,[1] Henry Rodriguez, M.D.,[16] Phil Southerland, B.S.,[17]
Ellie S. Strock, A.N.P.-B.C., C.D.E.,[1] William Tamborlane, M.D.,[18] and David M. Wesley, B.A.[1]

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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Author Affiliations: [1]International Diabetes Center at Park Nicollet, Minneapolis, Minnesota; [2]Harold Schnitzer Diabetes Health Center, Oregon Health and Science University, Portland, Oregon; [3]Institute and University of California, San Diego, San Diego, California; [4]Jaeb Center for Health Research, Tampa, Florida; [5]Park Nicollet Institute, Minneapolis, Minnesota; [6]Lucille Packard Children's Hospital, Stanford University, Palo Alto, California; [7]Florida State University, Tallahassee, Florida; [8]Lantana Consulting Group, East Thetford, Vermont; [9]Barbara Davis Center for Childhood Diabetes, University of Colorado, Denver, Denver, Colorado; [10]Columbia University Medical Center, New York City, New York; [11]University of Washington, Seattle, Washington; [12]Mills-Peninsula Health Services, San Mateo, California; [13]Henry Ford Health System, Detroit, Michigan; [14]CGParkin Communications Inc., Boulder City, Nevada; [15]University of Southern California, Los Angeles, California; [16]University of South Florida, Tampa, Florida; [17]Team Type 1, Atlanta, Georgia; and [18]Yale University, New Haven, Connecticut

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, (T1DM) type 1 diabetes mellitus, (T1D Ex) T1D Exchange Clinical Registry, (T2DM) type 2 diabetes mellitus, (TIR) time in range

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