Introduction

The American Diabetes Association (ADA) has been actively involved in the development and dissemination of diabetes care standards, guidelines, and related documents for many years. These statements are published in one or more of the Association's professional journals. This supplement contains the latest update of ADA's major position statement, "Standards of Medical Care in Diabetes," which contains all of the Association's key recommendations. In addition, contained herein are selected position statements on certain topics not adequately covered in the "Standards." ADA hopes that this is a convenient and important resource for all health care professionals who care for people with diabetes.

ADA Clinical Practice Recommendations consist of position statements that represent official ADA opinion as denoted by formal review and approval by the Professional Practice Committee and the Executive Committee of the Board of Directors. Consensus statements and technical reviews are not official ADA recommendations; however, they are produced under the auspices of the Association by invited experts. These publications may be used by the Professional Practice Committee as source documents to update the "Standards."

ADA has adopted the following definitions for its clinically related reports.

ADA position statement. An official point of view or belief of the ADA. Position statements are issued on scientific or medical issues related to diabetes. They may be authored or unauthored and are published in ADA journals and other scientific/medical publications as appropriate. Position statements must be reviewed and approved by the Professional Practice Committee and, subsequently, by the Executive Committee of the Board of Directors. ADA position statements are typically based on a technical review or other review of published literature. They are reviewed on an annual basis and updated as needed. A list of recent position statements is included on p. S98 of this supplement.

Table 1—*ADA evidence-grading system for clinical practice recommendations*

Level of evidence	Description
A	Clear evidence from well-conducted, generalizable, randomized controlled trials that are adequately powered, including: • Evidence from a well-conducted multicenter trial • Evidence from a meta-analysis that incorporated quality ratings in the analysis Compelling nonexperimental evidence, i.e., the "all or none" rule developed by the Centre for Evidence-Based Medicine at Oxford Supportive evidence from well-conducted randomized controlled trials that are adequately powered, including: • Evidence from a well-conducted trial at one or more institutions • Evidence from a meta-analysis that incorporated quality ratings in the analysis
B	Supportive evidence from well-conducted cohort studies, including: • Evidence from a well-conducted prospective cohort study or registry • Evidence from a well-conducted meta-analysis of cohort studies Supportive evidence from a well-conducted case-control study
C	Supportive evidence from poorly controlled or uncontrolled studies, including: • Evidence from randomized clinical trials with one or more major or three or more minor methodological flaws that could invalidate the results • Evidence from observational studies with high potential for bias (such as case series with comparison to historical controls) • Evidence from case series or case reports Conflicting evidence with the weight of evidence supporting the recommendation
E	Expert consensus or clinical experience

Technical review. A balanced review and analysis of the literature on a scientific or medical topic related to diabetes. The technical review provides a scientific rationale for a position statement and undergoes critical peer review before submission to the Professional Practice Committee for approval. A list of recent technical reviews is included on page S95 of this supplement.

Consensus statement. A comprehensive examination by a panel of experts (i.e., consensus panel) of a scientific or medical issue related to diabetes. A consensus statement is typically developed immediately following a consensus conference at which presentations are made on the issue under review. The statement represents the panel's collective analysis, evaluation, and opinion at that point in time based in part on the conference proceedings. The need for a consensus statement arises when clinicians or scientists desire guidance on a subject for which the evidence is contradictory or incomplete. Once written by the panel, a consensus statement is not subject to subsequent review or approval and does not represent official Association opinion. A list of recent consensus statements is included on p. S96 of this supplement.

The Association's Professional Practice Committee is responsible for reviewing ADA technical reviews and position statements, as well as for overseeing revisions of the latter as needed. Appointment to the Professional Practice Committee is based on excellence in clinical practice and/or research. The committee comprises physicians, diabetes educators, and registered dietitians who have expertise in a range of areas, including adult and pe-

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diatric endocrinology, epidemiology, and public health, lipid research, hypertension, and preconception and pregnancy care. All members of the Professional Practice Committee are required to disclose potential conflicts of interest (listed below).

Grading of scientific evidence. There has been considerable evolution in the evaluation of scientific evidence and in the development of evidence-based guidelines since the ADA first began publishing practice guidelines. Accordingly, we developed a classification system to grade the quality of scientific evidence supporting ADA recommendations for all new and revised ADA position statements.

Recommendations are assigned ratings of A, B, or C, depending on the quality of evidence (Table 1). Expert opinion (E) is a separate category for recommendations in which there is as yet no evidence from clinical trials, in which clinical trials may be impractical, or in which there is conflicting evidence. Recommendations with an "A" rating are based on large well-designed clinical trials or well-done meta-analyses. Generally, these recommendations have the best chance of improving outcomes when applied to the population to which they are appropriate. Recommendations with lower levels of evidence may be equally important but are not as well supported. The level of evidence supporting a given recommendation is noted either as a heading for a group of recommendations or in parentheses after a given recommendation.

Of course, evidence is only one component of clinical decision-making. Clinicians care for patients, not populations; guidelines must always be interpreted with the needs of the individual patient in mind. Individual circumstances, such as comorbid and coexisting diseases, age, education, disability, and, above all, patients' values and preferences, must also be considered and may lead to different treatment targets and strategies. Also, conventional evidence hierarchies, such as the one adapted by the ADA, may miss some nuances that are important in diabetes care. For example, while there is excellent evidence from clinical trials supporting the importance of achieving glycemic control, the optimal way to achieve this result is less clear. It is difficult to assess each component of such a complex intervention.

ADA will continue to improve and update the Clinical Practice Recommendations to ensure that clinicians, health plans, and policymakers can continue to rely on them as the most authoritative and current guidelines for diabetes care. Our Clinical Practice Recommendations are also available on the Association's website at www.diabetes.org/diabetescare.

DUALITIES OF INTEREST

Professional Practice Committee Members

Martin J. Abrahamson, MD, has served on the speakers bureau of Amylin, Eli Lilly, GlaxoSmithKline, Merck, Novo Nordisk, Novartis, Pfizer, sanofi aventis, and Takeda.

Andrew J. Ahmann, MD, has received honoraria for speaking from Merck*; has been a consultant/speaker for Amylin*, Eli Lilly*, and sanofi aventis*; and has received research grants from Amylin and Medtronic.

Joan Bardsley, RN, MBA, CDE, has served on the speakers bureau of and has been a consultant for Novo Nordisk*; has served on an advisory board of Eli Lilly; holds stock in *Pfizer; and has been a consultant for GlaxoSmithKline.

Curt D. Furberg, MD, PhD, reports no duality of interest.

Sheila Y. Garris, MD, FACP, has been a speaker for Takeda; and has been a speaker/consultant for Merck, Novartis, Forrest*, Daiichi/Sankyo, GlaxoSmithKline, and Osient.

Irl Hirsch, MD, has been a consultant for Abbott Diabetes Care, Eli Lilly, Novo Nordisk, Roche, and Johnson&Johnson; and has received unrestricted educational grants from sanofi aventis.

Silvio E. Inzucchi, MD, has been a consultant and speaker for and has served on the research steering committee of Takeda; has been a consultant/speaker for Merck*; has served on research trial data safety monitoring boards for Novartis* and Daiichi Sankyo; has received research funding from Eli Lilly*; and has been a consultant for Amylin. (Other: Merck*, Takeda*, Novo Nordisk*, and Amylin* have provided Continuing Medical Education funding to S.E.I.'s institution for a newsletter for which he is the co-editor; and Takeda provides unrestricted educational funding to S.E.I.'s institution in compensation for distribution rights to the institution's information booklet on diabetes care.)

Wahida Karmally, DrPH, RD, CDE, CLS, is on the Editorial Advisory Board of Healthy Living Magazine; has been a consultant for research for Shionogi; and has served on an advisory board of GlaxoSmithKline (Alli).

Francine Kaufman, MD, has served on advisory boards of Lifescan/Johnson&Johnson*, Medtronic*, Novo Nordisk, Clinical Products*, Nestle, Amylin, Abbott, Kinexium, Bayer, Insulet*, Health Maintenance Corporation, and DLife; has received research support from Medtronic and Lifescan/Johnson&Johnson; holds stock in Amylin, Diabetes Prevention Source, Clinical Products, and Mannkind; and has family members that are principle shareholders of Diabetes Prevention Source.

Mary T. Korytowski, MN, MD, MSN, has been a consultant for Novo Nordisk; has received grant support from sanofi aventis; and has been a lecturer for Takeda.

Melinda D. Maryniuk, MEd, RD, CDE, has served on an advisory board of Eli Lilly.

Antoinette A. Moran, MD, has received research support for supplies from Novo Nordisk*, Aventis*, and Lifescan*; and has served on an advisory board of Bayer.

Robert Toto, MD, reports no duality of interest.

Craig Williams, PharmaD, has received honoraria and fees for speaking and research support from Merck; and has received honoraria and fees for speaking from Schering-Plough.

David F. Williamson, PhD, reports no duality of interest.

Peter Wilson, MD, has received research support from and has been a consultant for GlaxoSmithKline*, sanofi aventis*, and Liposcience; has received research support from Eli Lilly* (Heart 2D investigator); and has been a consultant for Abt Associates and Merck.

American Diabetes Association Staff

M. Sue Kirkman, MD, and Stephanie A. Dunbar, MPH, RD, report no duality of interest.

*Amount >$10,000/year.

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