Individualized A_{1c} Levels Urged for Type 2 Diabetes

BY KERRI WACHTER
Senior Writer

Physicians should base target hemoglobin A_{1c} levels for patients with type 2 diabetes on individualized assessments of comorbidity, life expectancy, risk for complications, and patient preferences, while striving for glycemic control as low as is feasible, according to new clinical guidelines released by the American College of Physicians.

The new guidelines —"Glycemic Control and Type 2 Diabetes Mellitus: The Optimal Hemoglobin A_{1c} Targets. A Guidance Statement from the American College of Physicians"—are based on a review of existing guidelines on glycemic control from nine medical organizations (Ann. Intern. Med. 2007;147:417-22).

Instead of developing another guideline, the authors "felt that it would be more useful to provide clinicians with a rigorous review of the currently available guidelines so that they could make evidence-based care decisions," wrote Dr. Amir Qaseem and his colleagues on the Clinical Efficacy Assessment Subcommittee of the ACP.

Those guidelines that did set specific HbA_{1c} targets differed in their choice of target. For the most part, they used a target HbA_{1c} level of 7%.

The guidelines made three recommendations regarding optimal hemoglobin A_{1c} (HbA_{1c}) levels for patients with type 2 diabetes:

► The goal for glycemic control should be as low as is feasible without undue risk for adverse events or an unacceptable burden on patients. Physicians should also discuss with the patient the benefits and harms of specific levels of glycemic control. "A hemoglobin A_{1c} level less than 7% based on individualized assessment is a reasonable goal for many but not all patients," the group wrote.

► Target HbA_{1c} levels should be based on individualized assessments of comorbidity, life expectancy, risk for complications from diabetes, and patient preferences.

► Further research is needed to assess the optimal level of glycemic control, particularly in the presence of comorbid conditions.

To develop the guideline, the group started with a MEDLINE search using the keyword "diabetes" limited to "guideline." The search identified 416 articles. In addition, group members searched the National Guideline Clearinghouse for guidelines on diabetes. They excluded articles that did not address glycemic control, were duplicates, or were primary research studies. They also excluded articles that were not in English.

The group followed the AGREE (Appraisal of Guidelines Research and Evaluation in Europe) collaboration method. This method asks 23 questions in six domains: scope and purpose; stakeholder involvement; rigor of development; clarity and presentation; applicability; and editorial independence. Each guideline was evaluated using an additive score. The group considered the lack of an explicit link between evidence and recommendations a major flaw for a guideline.

The guidelines that remained were independently reviewed by two reviewers, using the AGREE method. Guidelines were scored by the reviewers, and scores were tabulated and compared across domains. The group then pulled out specific recommendations about glycemic control from each guideline.

In total, nine guidelines were evaluated. These included those from the American Association of Clinical Endocrinologists, the American Academy of Family Physicians (AAFP), the American Diabetes Association, the American Geriatric Society, the Canadian Diabetes Association, the Institute for Clinical Systems Improvement, the National Institute for Health and Clinical Excellence, the Scottish Intercollegiate Guidelines Network, and the Veterans Health Administration.

All guidelines except those from the AAFP set HbA_{1c} targets. However, those that did set specific target levels differed in the choice of target. For the most part, the guidelines used a target HbA_{1c} level of 7%.

Some guidelines recommended 7% as a general target, but also suggested tailoring target HbA_{1c} levels according to various factors, such as comorbid conditions. ■