

Control of Blood Sugar in Type 2 Diabetes: A Guidance Statement from the American College of Physicians

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The full report is titled “Glycemic Control and Type 2 Diabetes Mellitus: The Optimal Hemoglobin A_{1c} Targets. A Guidance Statement from the American College of Physicians.” It is in the 18 September 2007 issue of *Annals of Internal Medicine* (volume 147, pages 417-422). The authors are A. Qaseem, S. Vijan, V. Snow, J.T. Cross, K.B. Weiss, and D.K. Owens, for the Clinical Efficacy Assessment Subcommittee of the American College of Physicians.

Who developed these guidelines?

The American College of Physicians (ACP) developed these recommendations. Members of the ACP are internists, specialists in the care of adults.

What is the problem and what is known about it so far?

Type 2 diabetes interferes with the body’s ability to store energy from food and results in high blood sugar levels. Over time, high blood sugar levels can lead to many complications, including blindness, kidney failure, nerve damage, and cardiovascular disease (heart disease and stroke). Fortunately, good care with diet, exercise, and medications to control blood sugar levels prevents or delays the development of diabetes-related complications.

Hemoglobin A_{1c} is a blood test that measures blood sugar control over the previous 3 months. Lower hemoglobin A_{1c} values mean better blood sugar control. Several organizations have developed recommendations for target hemoglobin A_{1c} values for patients with type 2 diabetes.

How did the ACP develop these recommendations?

The authors searched computerized databases for published English-language guidelines about targets for blood sugar control in patients with type 2 diabetes. After identifying the guidelines, they evaluated them according to 23 criteria related to the quality of health care guidelines.

What did the authors find?

Guidelines that addressed blood sugar control in patients with type 2 diabetes were from the following organizations: American Association of Clinical Endocrinologists, American Academy of Family Physicians, American Diabetes Association, American Geriatrics Society, Canadian Diabetes Association, Institute for Clinical Systems Improvement, National Institute for Health and Clinical Excellence, Scottish Intercollegiate Network, and the Veterans Health Administration. All but one of the guidelines recommended a specific target value for hemoglobin A_{1c}. Among those that did, most recommended a target hemoglobin A_{1c} value of about 7%, but several guidelines recommended customizing the target to the individual patient. For example, lower targets should be used for people at high risk for complications, and higher targets should be used for people who have limited life expectancies because of advanced age or other diseases in addition to diabetes.

What does the ACP suggest that patients and doctors do?

Patients with type 2 diabetes should discuss the benefits and harms of specific levels of sugar control with their doctors. In general, patients should aim for hemoglobin A_{1c} values that are as low as possible without causing unacceptable burden or frequent episodes of dangerously low blood sugar. A hemoglobin A_{1c} value less than 7% is a reasonable target for many patients. Doctors should base the target hemoglobin A_{1c} on each patient’s risk of diabetes complications, presence of diseases other than diabetes, life expectancy, and patient preferences. More research is needed about the best targets for blood sugar control, particularly for patients who have other diseases in addition to type 2 diabetes.

What are the cautions related to these recommendations?

Recommendations may change as new studies become available. The authors did not examine guidelines published in languages other than English.

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