

Practice Guidelines

Type 2 Diabetes Mellitus: ACP Releases Updated Guidance Statement on A1C Targets for Pharmacologic Glycemic Control

Key Points for Practice

- Goals of glycemic control should be individualized to each patient, after discussing harms and benefits, preferences, overall health status, treatment burden, and expense.
- An A1C target of 7% to 8% is recommended for most patients, because targets of 7% or less do not appear to result in reduced risk of mortality or macrovascular events.
- The medication regimen may be de-escalated in patients with an A1C level less than 6.5%, because there is no evidence of clinical benefit in patients at this level.

From the AFP Editors

More than 9% of persons in the United States have type 2 diabetes mellitus. Increased blood glucose levels in these patients can lead to polyuria, polydipsia, weight loss, and dehydration. Although lowering blood glucose levels can decrease the risk of these symptoms and the associated complications, there are still disadvantages to doing so, including adverse effects, increased treatment burden, and expense.

A1C measurement is one method for determining blood glucose levels, but it is inconsistent and can change based on a patient's race and ethnicity. Previous guidelines have recommended the use of medications to reach A1C targets; however, an ideal target remains debatable. This guidance statement from the American College of Physicians (ACP) aims to help physicians achieve appropriate A1C targets via medication for non-pregnant patients with type 2 diabetes based on a

review of six health care organization guidelines. In a review of these guidelines, the authors found no studies indicating that A1C targets less than 6.5% improve clinical outcomes. Moreover, using medication to achieve this level had associated harms.

Guidance Statements

Goals of glycemic control via medication should be individualized to each patient, after talking about benefits and harms of more vs. less control, preferences, overall health status, treatment burden, and expense. Because targets of 7% or less vs. approximately 8% do not appear to result in reduced risk of mortality or macrovascular events, an A1C target of 7% to 8% is recommended for most patients. However, variability in A1C measurements should still be considered when making treatment decisions. Taking into account patient preference, a stricter A1C target can be considered in persons who are expected to live at least 15 more years. A lower target can be considered in patients who can achieve it with diet and lifestyle changes.

Because there is no evidence that an A1C level lower than 6.5% has clinical benefit, and evidence has shown associated harms, the medication regimen may be de-escalated (i.e., reduce dosage or decrease the number of medications prescribed) in patients who achieve an A1C level lower than 6.5%. Treatment in older persons and those with a shorter life expectancy should aim to reduce symptoms of hyperglycemia, rather than to achieve A1C targets. In addition, because achieving certain A1C targets is associated with

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This series is coordinated by Sumi Sexton, MD, Editor-in-Chief.

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more harm than good, these targets are not recommended in any patient expected to live fewer than 10 years because of older age (80 years and older), living in a long-term care facility, or with a chronic condition.

Other Considerations

All patients with type 2 diabetes should be supported in making healthy lifestyle choices, such as quitting smoking and achieving a healthy body weight. When making treatment decisions, individual patient factors, such as comorbid conditions, and patient preference should be taken into account. Because of the variability in A1C measurements, when selecting an A1C target, a range should be identified, rather than a single number.

Editor's Note: The "lower is better" drumbeat in the type 2 diabetes treatment community for almost 50 years is starting to fade away as the lack of benefit—and increased risk of harm—has been demonstrated in several studies. Although some endocrine societies are still holding out for lower A1C targets, the American Diabetes Association also has come to recognize the need to consider many factors other than glycemic control when making decisions about treatment goals. Shared decision making, based on a shared understanding of the possible risks and benefits of specific goals, should replace strict A1C targets.—Allen F. Shaughnessy, PharmD, AFP Assistant Medical Editor

Guideline source: American College of Physicians
Evidence rating system used? No

Systematic literature search described? Yes

Guideline developed by participants without relevant financial ties to industry? No

Recommendations based on patient-oriented outcomes? Yes

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Available at: <http://annals.org/aim/fullarticle/2674121/hemoglobin-1c-targets-glycemic-control-pharmacologic-therapy-nonpregnant-adults-type>

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