

**Treating Type 2 Diabetes Mellitus:  
HbA1C Target Goals and Monitoring**

**Key Message 2 :** HbA1C goals should be individualized for each patient with type 2 diabetes: less than 7% for most patients and less than 8% for specific high-risk subgroups

**Current recommendations for HbA1C and plasma glucose goals:**

Parameter	American Diabetes Association <sup>[1]</sup>	American Association of Clinical Endocrinologists <sup>[2]</sup>
HbA1C	<ul style="list-style-type: none"> <li>• &lt;7% for most patients</li> <li>• &lt;6.5% for patients who meet the following criteria:                             <ul style="list-style-type: none"> <li>○ Newly diagnosed or short duration of disease</li> <li>○ Low risk of hypoglycemia or other adverse events</li> <li>○ Long life expectancy</li> <li>○ No other comorbidities or complications</li> </ul> </li> <li>• &lt;8% may be appropriate in patients with:                             <ul style="list-style-type: none"> <li>○ A history of severe hypoglycemia</li> <li>○ Limited life expectancy</li> <li>○ Advanced microvascular or macrovascular complications</li> <li>○ Extensive comorbid conditions</li> <li>○ Long standing diabetes in whom goal is difficult to achieve</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• ≤6.5% for most patients</li> <li>• 7.0% to 8.0% may be appropriate in patients with:                             <ul style="list-style-type: none"> <li>○ A history of severe hypoglycemia</li> <li>○ Limited life expectancy</li> <li>○ Advanced microvascular or macrovascular complications</li> <li>○ Extensive comorbid conditions</li> <li>○ Long standing diabetes in whom goal is difficult to achieve</li> </ul> </li> </ul>
Pre-prandial glucose	80-130 mg/dL	<110 mg/dL
Postprandial glucose	<180 mg/dL	<140 mg/dL

**Summary of Major Clinical Trials: Impact of Intensive Therapy in Type 2 Diabetes<sup>[3]</sup>**

Study	Microvascular		CVD		Mortality	
	↓	↓*	↔	↓*	↔	↓*
UKPDS	↓	↓*	↔	↓*	↔	↓*
ACCORD	↓		↔		↑	
ADVANCE	↓		↔		↔	
VADT	↓		↔		↔	

UKPDS= UK Prospective Diabetes Study; DCCT= Diabetes Control and Complications Trial; ACCORD= Action to Control Cardiovascular Risk in Diabetes; ADVANCE= Action in Diabetes and Vascular Disease: Preterax and Diamicon Modified Release Controlled Evaluation; VADT=Veterans Affairs Diabetes Trial.  
 ↓=decreased rate; ↑= increased rate; ↔ =no effect  
 \* = 8 year follow up trial

**Calculate % of HbA1C lowering required to reach goal:**  
**Patient's Current HbA1C – Patient's Goal HbA1C = % of HbA1C lowering required**

**HbA1C Monitoring:<sup>1</sup>**

- **Every 3 months:**
  - **After any medication changes or adjustments**
  - **In patients not meeting glycemic goals**
- **At least twice a year:**
  - **In patients meeting treatment goals**
  - **In patients with stable glycemic control**



**References:**

1. Marathe, P.H., H.X. Gao, and K.L. Close, *American Diabetes Association Standards of Medical Care in Diabetes 2017*. J Diabetes, 2017. **9**(4): p. 320-324.
2. "AMERICAN ASSOCIATION OF CLINICAL ENDOCRINOLOGISTS AND AMERICAN COLLEGE OF ENDOCRINOLOGY – CLINICAL PRACTICE GUIDELINES FOR DEVELOPING A DIABETES MELLITUS COMPREHENSIVE CARE PLAN – 2015." *AACE.com*. N.p., 2017. Web. 25 Sept. 2017. .
3. Bergenstal, R.M., C.J. Bailey, and D.M. Kendall, *Type 2 diabetes: assessing the relative risks and benefits of glucose-lowering medications*. Am J Med, 2010. **123**(4): p. 374 e 9 -18.