

# Summary of Revisions for the 2008 Clinical Practice Recommendations

**B**eginning with the 2005 supplement, the Clinical Practice Recommendations contained only the “Standards of Medical Care in Diabetes” and selected other position statements. This change was made to emphasize the importance of the “Standards” as the best source to determine the recommendations of the American Diabetes Association (ADA). The position statements in the supplement are updated yearly. Position statements not included in the supplement will be updated as necessary and republished when updated. A list of recent position statements not included in this supplement appears on p. S109.

## Revisions to the 2008 Clinical Practice Recommendations

- ADA Statements and ADA Position Statements have been combined under the category of ADA Position Statements. Such statements may be authored or unauthored, are reviewed and approved by the Professional Practice Committee and Executive Committee of the Association, and represent an official point of view of ADA.
- “The Standards of Medical Care in Diabetes—2008” has undergone substantial revisions compared with the 2007 version; the revisions are based on updated literature reviews and the desire to make the document more user-friendly. The following summarizes significant additions and revisions to the 2008 standards:

## Additions to the “Standards of Medical Care in Diabetes”

- An executive summary on page S5 outlines all recommendations in the “Standards of Medical Care in Diabetes—2008”
- Table 5 lists screening recommendations and diagnostic cut points for gestational diabetes
- Table 6 summarizes interventions and results of diabetes prevention trials

- The “Approach to treatment” section includes a section on the general treatment of type 1 diabetes, in addition to the section on the general treatment of type 2 diabetes
- A table summarizing the evidence for statin therapy in people with diabetes has been added (Table 10).

## Revisions to the “Standards of Medical Care in Diabetes”

- Testing for pre-diabetes in asymptomatic patients (previously screening for diabetes):
  - A more explicit recommendation to consider testing adults of any age who are overweight or obese and have additional risk factors for diabetes
- Prevention/delay of type 2 diabetes:
  - In addition to lifestyle counseling, metformin may be considered in those who are at very high risk (combined impaired fasting glucose and impaired glucose tolerance plus other risk factors) and who are obese and under 60 years of age. (E)

## Diabetes care:

- Components of the comprehensive diabetes evaluation revised
- Continuous glucose monitoring may be a supplemental tool to SMBG for selected patients with type 1 diabetes, especially those with hypoglycemia unawareness. (E)
- Glycemic goals have been listed in a separate table (Table 8)
- Revisions to the language about glyce-mic goals:
  - Lowering A1C to an average of ~7% has clearly been shown to reduce microvascular and neuropathic complications of diabetes and possibly macrovascular disease. Therefore, the A1C goal for nonpregnant adults in general is <7%. (A)
  - Epidemiologic studies have sug-

gested an incremental (albeit, in absolute terms, a small) benefit to lowering A1C from 7% into the normal range. Therefore, the A1C goal for selected individual patients is as close to normal (<6%) as possible without significant hypoglycemia. (B)

- Less stringent A1C goals may be appropriate for patients with a history of severe hypoglycemia, patients with limited life expectancies, children, individuals with comorbid conditions, and those with longstanding diabetes and minimal or stable microvascular complications. (E)
- The “Approach to treatment” section on type 2 diabetes has been revised
- The “Medical Nutrition Therapy” section has been revised; updates to this section include the following revised recommendations for weight loss:
  - For weight loss, either low-carbohydrate or low-fat calorie-restricted diets may be effective in the short-term (up to 1 year). (A)
  - For patients on low-carbohydrate diets, monitor lipid profiles, renal function, and protein intake (in those with nephropathy), and adjust hypoglycemic therapy as needed. (E)
- The section previously titled “Referral for diabetes management” has been titled “When treatment goals are not met”
- The “Hypoglycemia” section has been revised to include more about prevention and hypoglycemia unawareness, with an additional recommendation:
  - Individuals with hypoglycemia unawareness or one or more episodes of severe hypoglycemia should be advised to raise their glycemic targets to strictly avoid further hypoglycemia for at least several weeks in order to partially reverse hypoglycemia unawareness and reduce risk of future episodes. (B)

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### Prevention and management of diabetes complications:

- Hypertension/blood pressure control section: the number of treatment recommendations has been reduced to emphasize use of angiotensin converting-enzyme (ACE) inhibitors or angiotensin receptor blockers (ARBs).
- Dyslipidemia/lipid management section: the number of treatment recommendations has been reduced to emphasize use of statins for most patients. Several recommendations have been revised:
  - If drug-treated patients do not reach the above targets on maximal tolerated statin therapy, a reduction in LDL cholesterol of ~40% from baseline is an alternative therapeutic goal. (A)
  - Triglyceride levels <150 mg/dl (1.7 mmol/l) and HDL cholesterol levels >40 mg/dl (1.0 mmol/l) in men and >50 mg/dl (1.3 mmol/l) in women are desirable. However, LDL cholesterol-targeted statin therapy remains the preferred strategy. (C)
- Nephropathy screening and treatment: the number of recommendations has been reduced to emphasize use of ACE inhibitors or ARBs

### Diabetes care in specific populations:

- Children and adolescents with type 1 diabetes:
  - Consider age when setting glycemic goals in children and adolescents with type 1 diabetes, with less stringent goals for younger children. (E)
  - Initial dyslipidemia therapy should consist of optimization of glucose control and medical nutrition therapy using a Step 2 American Heart Association diet aimed at a decrease in the amount of saturated fat in the diet. (E)
  - After the age of 10 years, the addition of a statin is recommended in patients who, after MNT and lifestyle changes, have LDL cholesterol >160 mg/dl (4.1 mmol/l) or have LDL cholesterol >130 mg/dl (3.4 mmol/l)

and one or more cardiovascular disease risk factors. (E)

- New section on hypothyroidism, with new recommendations:
  - Patients with type 1 diabetes should be screened for thyroid peroxidase and thyroglobulin antibodies at diagnosis. (E)
  - Thyroid-stimulating hormone (TSH) concentrations should be measured after metabolic control has been established. If normal, they should be rechecked every 1–2 years or if the patient develops symptoms of thyroid dysfunction, thyromegaly, or an abnormal growth rate. Free T4 should be measured if TSH is abnormal. (E)
- The section on older adults now includes the following recommendations:
  - Older adults who are functional, cognitively intact, and have significant life expectancy should receive diabetes treatment using goals developed for younger adults. (E)
  - Glycemic goals for older adults not meeting the above criteria may be relaxed using individual criteria, but hyperglycemia leading to symptoms or risk of acute hyperglycemic complications should be avoided in all patients. (E)
  - Other cardiovascular risk factors should be treated in older adults with consideration of the timeframe of benefit and the individual patient. Treatment of hypertension is indicated in virtually all older adults, and lipid and aspirin therapy may benefit those with life expectancy at least equal to the timeframe of primary or secondary prevention trials. (E)
  - Screening for diabetic complications should be individualized in older adults, but particular attention should be paid to complications that would lead to functional impairment. (E)

### Diabetes care in specific settings

- Diabetes care in the hospital: Glycemic goals have been modified slightly:

- Critically ill patients: blood glucose levels should be kept as close to 110 mg/dl (6.1 mmol/l) as possible and generally <140 mg/dl (7.8 mmol/l). (A) These patients require an intravenous insulin protocol that has demonstrated efficacy and safety in achieving the desired glucose range without increasing risk for severe hypoglycemia. (E)
- Non-critically ill patients: there is no clear evidence for specific blood glucose goals. Because cohort data suggest that outcomes are better in hospitalized patients with fasting glucose <126 mg/dl and all random glucoses <180–200 mg/dl, these goals are reasonable if they can be safely achieved. Insulin is the preferred drug to treat hyperglycemia in most cases. (E)
- Diabetes care in the school and day care setting: recommendations have been slightly revised to incorporate only the diabetes medical management plan, as health care providers would not be involved with 504 plans.
- The “Emergency and disaster preparedness” section: based on the ADA Task Force report, the following new recommendations have been added:
  - People with diabetes should maintain a disaster kit that includes items important to their diabetes self-management and continuing medical care. (E)
  - The kit should be reviewed and replenished at least twice yearly. (E)

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