

American Diabetes Association: Standards of Medical Care in Diabetes – 2015

Synopsis of ADA standards relevant to the 11th Scope of Work under Task B.2

ASSESSMENT OF GLYCEMIC CONTROL

Recommendations:

- Perform the A1C test at least two times a year in patients who are meeting treatment goals (and who have stable glycemic control). E
- Perform the A1C test quarterly in patients whose therapy has changed or who are not meeting glycemic goals. E
- Use of point-of-care testing for A1C provides the opportunity for more timely treatment changes. E

CARDIOVASCULAR DISEASE AND RISK MANAGEMENT

Recommendations:

Screening and Diagnosis

- Blood pressure should be measured at every routine visit. Patients found to have elevated blood pressure should have blood pressure confirmed on a separate day. B

Goals

- People with diabetes and hypertension should be treated to a systolic blood pressure (SBP) goal of, 140 mmHg. A
- Lower systolic targets, such as, 130 mmHg, may be appropriate for certain individuals, such as younger patients, if they can be achieved without undue treatment burden. C
Individuals with diabetes should be treated to a diastolic blood pressure (DBP), 90 mmHg. A
- Lower diastolic targets, such as, 80 mmHg, may be appropriate for certain individuals, such as younger patients, if they can be achieved without undue treatment burden. B

TREATMENT

- Patients with blood pressure >120/80 mmHg should be advised on lifestyle changes to reduce blood pressure. B
- Patients with confirmed office-based blood pressure higher than 140/90 mmHg should, in addition to lifestyle therapy, have prompt initiation and timely subsequent titration of pharmacological therapy to achieve blood pressure goals. A
- Lifestyle therapy for elevated blood pressure consists of weight loss, if overweight or obese; a Dietary Approaches to Stop Hypertension (DASH)-style dietary pattern including reducing sodium and increasing potassium intake; moderation of alcohol intake; and increased physical activity. B

- Pharmacological therapy for patients with diabetes and hypertension should comprise a regimen that includes either an ACE inhibitor or an angiotensin receptor blocker (ARB). B If one class is not tolerated, the other should be substituted. C
- Multiple-drug therapy (including a thiazide diuretic and ACE inhibitor/ARB, at maximal doses) is generally required to achieve blood pressure targets. B

LIPIDS

Recommendations

- Screening: In adults, a screening lipid profile is reasonable at the time of first diagnosis, at the initial medical evaluation, and/or at age 40 years and periodically (e.g., every 1–2 years) thereafter. E

Treatment Recommendations and Goals

- Lifestyle modification focusing on the reduction of saturated fat, trans fat, and cholesterol intake; increase of omega-3 fatty acids, viscous fiber, and plant stanols/sterols; weight loss (if indicated); and increased physical activity should be recommended to improve the lipid profile in patients with diabetes. A
- Intensify lifestyle therapy and optimize glycemic control for patients with elevated triglyceride levels (>150 mg/dL [1.7 mmol/L]) and/or low HDL cholesterol (<40 mg/dL [1.0 mmol/L] for men, <50 mg/dL [1.3 mmol/L] for women).
- For patients with fasting triglyceride levels >500 mg/dL (5.7 mmol/L), evaluate for secondary causes and consider medical therapy to reduce risk of pancreatitis. C
- For patients of all ages with diabetes and overt CVD, high-intensity statin therapy should be added to lifestyle therapy. A
- For patients with diabetes aged <40 years with additional CVD risk factors, consider using moderate or high-intensity statin and lifestyle therapy. C
- For patients with diabetes aged 40–75 years without additional CVD risk factors, consider using moderate-intensity statin and lifestyle therapy. A
- For patients with diabetes aged 40–75 years with additional CVD risk factors, consider using high-intensity statin and lifestyle therapy. B
- For patients with diabetes aged >75 years without additional CVD risk factors, consider using moderate-intensity statin therapy and lifestyle therapy. B
- For patients with diabetes aged >75 years with additional CVD risk factors, consider using moderate- or high-intensity statin therapy and lifestyle therapy. B
- In clinical practice, providers may need to adjust intensity of statin therapy based on individual patient response to medication (e.g., side effects, tolerability, LDL cholesterol levels). E
- Cholesterol laboratory testing may be helpful in monitoring adherence to therapy, but may not be needed once the patient is stable on therapy. E
- Combination therapy (statin/fibrate and statin/niacin) has not been shown to provide additional Cardiovascular benefit above statin therapy alone and is not generally recommended. A
- Statin therapy is contraindicated in pregnancy. B

RETINOPATHY

Recommendations

- Optimize glycemic control to reduce the risk or slow the progression of retinopathy. A
- Optimize blood pressure control to reduce the risk or slow the progression of retinopathy. A

Screening

- Adults with type 1 diabetes should have an initial dilated and comprehensive eye examination by an ophthalmologist or optometrist within 5 years after the onset of diabetes. B
- Patients with type 2 diabetes should have an initial dilated and comprehensive eye examination by an ophthalmologist or optometrist shortly after the diagnosis of diabetes. B
- If there is no evidence of retinopathy for one or more eye exams, then exams every 2 years may be considered. If diabetic retinopathy is present, subsequent examinations for patients with type 1 and type 2 diabetes should be repeated annually by an ophthalmologist or optometrist. If retinopathy is progressing or sight-threatening, then examinations will be required more frequently. B
- High-quality fundus photographs can detect most clinically significant diabetic retinopathy. Interpretation of the images should be performed by a trained eye care provider. While retinal photography may serve as a screening tool for retinopathy, it is not a substitute for a comprehensive eye exam, which should be performed at least initially and at intervals thereafter as recommended by an eye care professional. E

FOOT CARE

Recommendations

- For all patients with diabetes, perform an annual comprehensive foot examination to identify risk factors predictive of ulcers and amputations. The foot examination should include inspection and assessment of foot pulses. B
- Patients with insensate feet, foot deformities, and ulcers should have their feet examined at every visit. E
- Provide general foot self-care education to all patients with diabetes. B
- A multidisciplinary approach is recommended for individuals with foot ulcers and high-risk feet (e.g., dialysis patients and those with Charcot foot, prior ulcers, or amputation). B
- Refer patients who smoke or who have a loss of protective sensation (LOPS), structural abnormalities, or a history of prior lower extremity complications to foot care specialists for ongoing preventive care and lifelong surveillance. C
- Initial screening for peripheral arterial disease (PAD) should include a history for claudication and an assessment of the pedal pulses. C
- Refer patients with significant claudication or a positive ankle brachial index (ABI) for further vascular assessment and consider exercise, medications, and surgical options. C

WEIGHT CONTROL

Recommendations:

Effectiveness of nutrition therapy

- Nutrition therapy is recommended for all people with type 1 and type 2 diabetes as an effective component of the overall treatment plan. A
- Individuals who have diabetes should receive individualized MNT to achieve treatment goals, preferably provided by a registered dietitian familiar with the components of diabetes MNT. A
- For individuals with type 1 diabetes, participation in an intensive, flexible insulin therapy education program using the carbohydrate-counting meal planning approach can result in improved glycemic control. A
- For individuals using fixed daily insulin doses, consistent carbohydrate intake with respect to time and amount can result in improved glycemic control and reduce hypoglycemia risk. B
- A simple diabetes meal planning approach, such as portion control or healthful food choices, may be better suited to individuals with type 2 diabetes with health and numeracy literacy concerns. This strategy also may be effective for older adults. C
- Because diabetes nutrition therapy can result in cost savings B and improved outcomes (e.g., A1C reduction) A, MNT should be adequately reimbursed by insurance and other payers. B, A, E

Energy balance

- For overweight or obese adults with type 2 diabetes or at risk for diabetes, reducing energy intake while maintaining a healthful eating pattern is recommended to promote weight loss. A
- Modest weight loss may provide clinical benefits in some individuals with diabetes, especially those early in the disease process. To achieve modest weight loss, intensive lifestyle interventions with ongoing support are recommended. A

Eating patterns and macronutrient distribution

- Evidence suggests that there are not an ideal percentage of calories from carbohydrate, protein, and fat for all people with diabetes B; therefore, macronutrient distribution should be based on individualized assessment of current eating patterns, preferences, and metabolic goals. B, E
- Carbohydrate amount and available insulin may be the most important factors influencing glycemic response after eating and should be considered when developing the eating plan. A
- Monitoring carbohydrate intake, whether by carbohydrate counting or experience-based estimation, remains critical in achieving glycemic control. B
- Carbohydrate intake from vegetables, fruits, whole grains, legumes, and dairy products should be advised over intake from other carbohydrate sources, especially those that contain added fats, sugars, or sodium. B
- Substituting low glycemic-load foods for higher glycemic-load foods may modestly improve glycemic control. C
- Individuals at high risk for type 2 diabetes should be encouraged to achieve the U.S. Department of Agriculture recommendation for dietary fiber (14 g fiber/1,000 kcal) and to consume foods containing whole grains (one-half of grain intake). B

- While substituting sucrose-containing foods for isocaloric amounts of other carbohydrates may have similar blood glucose effects, consumption should be minimized to avoid displacing nutrient-dense food choices. A
- People with diabetes and those at risk should limit or avoid intake of sugar-sweetened beverages to reduce risk for weight gain and worsening of cardiometabolic risk profile. B

Protein

- In individuals with type 2 diabetes, ingested protein appears to increase insulin response without increasing plasma glucose concentrations. Therefore, carbohydrate sources high in protein should not be used to treat or prevent hypoglycemia. B
- Evidence is inconclusive regarding an ideal amount of total fat for people with diabetes; therefore, goals should be individualized. C Fat quality appears to be far more important than quantity. C, B
- A Mediterranean-style eating pattern, rich in monounsaturated fatty acids, may benefit glycemic control and CVD risk factors and can therefore be recommended as an effective alternative to a lower-fat, higher-carbohydrate eating pattern. B

Dietary fat

- Increased consumption of foods containing long-chain omega-3 fatty acids (EPA and DHA), such as fatty fish, and omega-3 linolenic acid (ALA) is recommended. B
- The consumption of fish (particularly fatty fish) at least two times (two servings) per week is recommended. B
- The amount of dietary saturated fat, cholesterol, and trans fat recommended for people with diabetes is the same as that recommended for the general population. C
- Evidence does not support recommending omega-3 supplements for people. A

Micronutrients and herbal supplements

- There is no clear evidence of benefit from vitamin or mineral supplementation in people with diabetes who do not have underlying deficiencies. C
- Routine supplementation with antioxidants, such as vitamins E and C and carotene, is not advised due to insufficient evidence of efficacy and concerns related to long-term safety. C
- There is insufficient evidence to support the routine use of micronutrients such as chromium, magnesium, and vitamin D to improve glycemic control in people with diabetes. C
- There is insufficient evidence to support the use of cinnamon or other herbs/supplements for the treatment of diabetes. E
- It is recommended that individualized meal planning include optimization of food choices to meet recommended dietary allowance/dietary reference intake for all micronutrients. E

Alcohol

- If adults with diabetes choose to drink alcohol, they should be advised to do so in moderation (no more than one drink per day for adult women and no more than two drinks per day for adult men). C
- Alcohol consumption may place people with diabetes at an increased risk for delayed hypoglycemia, especially if taking insulin or insulin secretagogues. Education and awareness regarding the recognition and management of delayed hypoglycemia are warranted. B

Sodium

- The recommendation for the general population to reduce sodium to less than 2,300 mg/day is also appropriate for people with diabetes. B
- For individuals with both diabetes and hypertension, further reduction in sodium intake should be individualized. B

ADA evidence-grading system for “Standards of Medical Care in Diabetes”	
Level of Evidence	Description
A	<p>Clear evidence from well-conducted, generalizable randomized controlled trials that are adequately powered, including:</p> <ul style="list-style-type: none"> • Evidence from a well-conducted multicenter trial • Evidence from a meta-analysis that incorporated quality ratings in the analysis. <p>Compelling non-experimental evidence; i.e., “all or none” rule developed by the Centre for Evidence-Based Medicine at the University of Oxford</p> <p>Supportive evidence from well-conducted randomized controlled trials that are adequately powered, including:</p> <ul style="list-style-type: none"> • Evidence from a well-conducted trial at one or more institutions • Evidence from a meta-analysis that incorporated quality ratings in the analysis
B	<p>Supportive evidence from well-conducted cohort studies</p> <ul style="list-style-type: none"> • Evidence from a well-conducted prospective cohort study or registry • Evidence from a well-conducted meta-analysis of cohort studies <p>Supportive evidence from a well-conducted case-control study</p>
C	<p>Supportive evidence from poorly controlled or uncontrolled studies</p> <ul style="list-style-type: none"> • Evidence from randomized clinical trials with one or more major or three or more minor methodological flaws that could invalidate the results • Evidence from observational studies with high potential for bias (such as case series with comparison with historical controls) • Evidence from case series or case reports <p>Conflicting evidence with the weight of evidence supporting the recommendation</p>
E	Expert consensus or clinical experience

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http://professional.diabetes.org/admin/UserFiles/0%20-%20Sean/Documents/January%20Supplement%20Combined_Final.pdf