



Management of Type 2 Diabetes Mellitus

The following guideline applies to patients aged 18-75 years with type 2 diabetes mellitus. It recommends specific interventions for periodic medical assessment, laboratory tests and education to guide effective patient self-management.

Key Components

Assessment (at least every 6 months, more frequently as needed to support management of glycemia, weight, blood pressure, and secondary prevention interventions)

Glycemia: assess with A1c or continuous glucose monitoring (CGM) [E]. Individualize the A1c goal (S115 [Figure 6.2](#)). Goal depends on patient's health and frailty status. See box below for A1c targets. Weight management: assess weight at least annually [E] and treat overweight or obesity as a primary goal of diabetes treatment [A] with a goal of 3-7% weight loss to improve glycemia and cardiovascular risk and >10% to achieve possible diabetes remission and long-term cardiovascular outcomes and mortality [B]. Minimize medications associated with weight gain [E].

Blood pressure: For confirmed hypertension and T2D, BP goal <130/80 if it can be safely achieved [A].

Social determinants and structural barriers: assess annually, especially food insecurity, housing stability, financial barriers, transportation access, health insurance status and community safety [A].

Additional assessment and interventions:

CVD/risk management: Calculate ASCVD risk and monitor lipid profile [E]; use moderate intensity statin for most patients 40-75 years of age without CVD [A]; high dose statin for all patients with higher CVD risk and established CVD [A]; use ASA 75-162 mg/day for established CVD unless contraindicated. [A]

Tobacco/nicotine cessation [A] including second-hand smoke avoidance. Recommend counseling and pharmacologic therapy (nicotine replacement and/or varenicline, bupropion, others). [A]

Retinopathy: initial fundoscopic exam by an ophthalmologist or optometrist. If retinopathy, repeat eye exam at least annually. If no retinopathy, every 1-2 years. Retinal photography may improve screening access. [B] Control glycemia, blood pressure and lipids to reduce risk and slow progression. [A]

Chronic kidney disease (CKD): assess spot urinary albumin-to-creatinine ratio [UACR] and estimated glomerular filtration rate (eGFR), monitor at least annually. [B] Optimize glycemic and blood pressure control. Refer to ADA guidelines for treatment recommendations for moderate to severe albuminuria and/or decreased eGFR with ACE inhibitor or ARB, SGLT-2 inhibitors, GLP-1 receptor agonists and non-steroidal mineralocorticoid receptor antagonist to reduce CKD progression and cardiovascular events [A/B]. Limit NSAIDs and other renal-toxic medications. Refer to nephrologist for eGFR <30 or worsening urinary albumin levels [A].

Foot care: comprehensive foot exam including 10-g monofilament test annually [B], then inspect feet at risk at every visit. [A] Provide foot care education including physical activity, appropriate footwear, nail and skin care. [B] Refer to podiatrist or foot care specialist if foot ulcers or high risk feet [B].

Refer for individualized medical nutrition therapy (MNT) and diabetes self-management education and support (DSMES) [A] from a collaborative team or diabetic educator.

Encourage moderate-to-vigorous exercise 150 minutes per week [B] and 2-3 sessions of resistance training per week [B].

Provide preconception counseling and family planning for pregnancy capable people and aim for preconception A1C<6.5%. [A]

Metabolic dysfunction-associated liver disease (MASLD): screen with Fibrosis-4 (FIB-4) index using age, AST, ALT, and platelet count. If at indeterminate risk (FIB-4 1.3-2.67) risk stratify with either enhanced liver fibrosis (ELF) or elast ography (FibroScan) [B]. If at high risk (FIB-4 >2.67 or FibroScan Liver Stiffness Measure [LSM] ≥8 kPa), refer to hepatologist or gastroenterologist [B]. Treatment includes weight loss with a structured nutrition plan and consider adjunctive GLP-1 RA [B].

Immunizations: ensure appropriate immunization status [A], especially pneumococcal, influenza, COVID-19 and Hepatitis B.

Glycemic Control: Pharmacologic treatment may be individualized and may include SGLT-2i or GLP-1 RA with proven benefit for individuals with ASCVD, heart failure, or CKD to slow disease progression and CV events [A], and be tailored to impact on efficacy needs, weight management, cost, access, and tolerability [E] (S166 [Figure 9.3](#) and S171 [Figure 9.4](#)). Educate on role of self-monitoring of blood glucose in glycemic control. [A]

Offer CGM for patients treated with single or multiple daily injections of insulin or insulin pump therapy, s who adjust doses and/or have histories of severe hypoglycemia [A/B].

A1c Targets:

- <6.5% for women planning pregnancy [A]
- <7% for many non-pregnant adults without hypoglycemia [A]
- <8% for adults at with limited life expectancy or for whom potential harms of treatment are greater than benefits [B]
- Avoid reliance on A1c and consider blood glucose monitoring (BGM) and/or CGM to achieve glycemic goals for individuals with recurrent hypoglycemia, severe cognitive impairment, advanced kidney disease, or limited life expectancy [E]

Weight Management:

Individualize obesity treatment and refer to medical nutrition therapy, use pharmacologic agents, or refer to metabolic surgery [A] based on patient motivation, preferences, and comorbidities.

Nutritional counseling should focus on caloric restriction and increasing daily consumption of non-starchy vegetables, moderate consumption of protein and heart healthy fats, and decreasing or eliminating simple sugars including sugar-sweetened beverages.

Offer or refer patients for medical evaluation of secondary causes of obesity including obesigenic medications, sleep apnea, hypothyroidism, etc.

Eliminate or replace obesogenic medications with weight negative or weight neutral medications when possible.

Hypertension control:

Evidence-based non-pharmacologic interventions for blood pressure management include a DASH-style eating pattern, weight loss when indicated, increased physical activity, salt restriction and alcohol reduction [A]. First-line medications include ACE-I/ARB, thiazide-like diuretic, or dihydropyridine CCB [A], refer to algorithm for hypertension treatment in T2D (S285 [Figure 10.2](#)).

ADA evidence grading system: A = randomized controlled trials; B = cohort or case control studies; C = poorly or uncontrolled studies or conflicting evidence; E = expert consensus or clinical experience

This guideline lists core management steps. It is based on the American Diabetes Association Standards of Medical Care in Diabetes - 2023 Dec; 47 (Supplemental 1): S1-S321. Individual patient considerations and advances in medical science may supersede or modify these recommendations.