Michigan Quality Improvement Consortium Guideline
Management of Diabetes Mellitus

The following guideline applies to patients with type 1 and type 2 diabetes mellitus. It recommends specific interventions for periodic medical assessment, laboratory tests and education to guide effectiv patient self-management.

Eligible Population	Key Components	Recommendation and Level of Evidence	Frequency
Patients 18-75 years of age with type 1 or type 2 diabetes mellitus	Periodic assessment	Assessment should include: Height, weight, BMI, blood pressure [A] Assess cardiovascular risks (tobacco use, hypertension, dyslipidemia, sedentary lifestyle, obesity, stress, family history, age > 40) Comprehensive foot exam (visual, monofilament, and pulses) [B] Screen for depression [D] Dilated eye exam by ophthalmologist or optometrist TBI, or if no prior retinopathy, may screen with fundal photography TBI	♦ Perform periodic assessment at least annually ♦ Record BP at every visit ♦ In the absence of retinopathy repeat retinal eye exam in 2 years
	Laboratory tests	Tests should include: A1C[D] Urine microalbumin measurement [B] (unless already on ACE or ARB) Serum creatinine and calculated GFR [D] Lipid profile [B], preferably fasting Consider TSH and LFTs [D]	♦A1C every 3-6 months based on individual therapeutic goal; other tests annually
	Education, counseling and risk factor modification	Comprehensive diabetes self-management education and support (DSME and DSMS) from a collaborative team or diabetic educator if available Education should be individualized, based on the National Standards for DSME[1][B] and include: - Importance of regular physical activity including interrupting sedentary periods at least every 90 minutes with physical activity, and a healthy diet [A], and working towards an appropriate BMI - Assessment of patient knowledge, attitudes, self-management skills and health status; strategies for making health behavior changes and addressing psychosocial concerns [C] - Description of diabetes disease process and treatment: safe and effective use of medications; prevention, detection and treatment of acute and chronic complications, including prevention and recognition of hypoglycemia - Role of self-monitoring of blood glucose in glycemic control [A] - Cardiovascular risk reduction - Tobacco cessation intervention[2] [B] and secondhand smoke avoidance [C] - Self-care of feet including nail and skin care and appropriate footwear [B]; preconception counseling [D]; encourage patients to receive dental care [D]	At diagnosis and as needed
	Medical recommendations	Care should focus on tobacco cessation, hypertension, lipids and glycemic control: - Medications for tobacco dependence unless contraindicated - Treatment of hypertension using up to 3-4 anti-hypertensive medications to achieve adult target of 140/90 mmHg [A] (see *MQIC hypertension guideline).* Mortality increases if diastolic is < 70. - Prescription of ACE inhibitor or angiotensin receptor blocker in patients with chronic kidney disease or albuminuria [A][3] - Moderate intensity statin[4,5] therapy for primary prevention against macrovascular complications (e.g. simvastatin 20-40 mg, atorvastatin 10-20 mg) - For patients with overt CVD, high intensity statin (e.g. atorvastatin 40-80 mg) - Anti-platelet therapy [A]: low dose aspirin for adults with cardiovascular disease unless contraindicated. - Individualize the A1C goal[6]. Goal for most patients is 7-8%. Mortality increases when A1C is > 9% [B]. - Assurance of appropriate immunization status [Tdap or Td, influenza, pneumococcal vaccine (PCV13 and PPSV23), Hep B] [CI	At each visit until therapeutic goals are achieved

[1] National Standards (or Diabetes Self-Management Education and Support

[2]There is no evidence that e-cigarettes are a healthier alternative to smoking or that e-cigarettes can facilitate smoking cessation

[3]Consider referral of patients with serum creatinine value > 2.0 mg/dl (adult value) or persistent albuminuria to nephrologist for evaluation

'Diabetes Care. January 2015 Cardiovascular Disease and Risk Management

^2013 ACC/AHA Blood Cholesterol Guideline Table 5. High-, Moderate-, and Low-Intensity Statin Therapy

[6]Diabetes Care. Volume 38 Supplement 1. January 2015. S37 Table 5.2

Levels of evidence for the most significant recommendations: A = randomized controlled trials; B = controlled trials, no randomization; C = observational studies; D = opinion of expert panel

This guideline lists core management steps. It is based on the American Diabetes Association Standards of Medical Care in Diabetes - 2015; Volume 38. Supplement 1, Pages S1-S93 (http://care.diabetesjoumals org). Individual patient consideration.; medical science mav supersede or modify these recommendations.

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