# CLINICAL PRACTICE GUIDELINES

## Medical 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 affective patient self-management.

### ELIGIBLE POPULATION:
- Patients 18-75 years of age with Type 1 or Type 2 diabetes mellitus

### KEY COMPONENTS

<table>
<thead>
<tr>
<th>PERIODIC ASSESSMENT</th>
<th>RECOMMENDATION AND LEVEL OF EVIDENCE</th>
<th>FREQUENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment should include blood pressure, height, weight, BMI [A]</td>
<td>Annual comprehensive foot exam</td>
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<tr>
<td>Assess cardiovascular risks (smoking, hypertension, dyslipidemia, sedentary lifestyle, obesity, stress, family history, age &gt; 40)</td>
<td>Record BP at every visit</td>
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<tr>
<td>Comprehensive foot exam (visual, monofilament, and pulses) [B]</td>
<td>Yearly dilated eye exam</td>
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<td>Screen for depression [D]</td>
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<tr>
<td>Dilated eye exam by ophthalmologist or optometrist [B], or if no prior retinopathy, may screen with fundal photography [B]</td>
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### LABORATORY TESTS

- 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]

### EDUCATION, COUNSELING AND RISK FACTOR MODIFICATION

Comprehensive diabetes self-management education (DSME) from a collaborative team or diabetic educator if available. Education should be individualized, based on the National Standards for DSME [B] and include:

- Importance of regular 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
- Smoking cessation intervention [B] and second hand 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]

- Cardiovascular disease unless contraindicated.
- Individualize the A1C
- Goal for most patients is 7-8%. Mortality increases when A1C is > 9% [B].
### MEDICAL RECOMMENDATIONS

**Care should focus on smoking, 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 EHC 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]
- Moderate intensity statin 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
- Anti-platelet therapy [A]: low dose aspirin for adults with assurance of appropriate immunization status [Tdap or Td, influenza, pneumococcal vaccine, Hep B][C]
- Individualize the HbA1c. Goal for most patients is 7-8% Mortality increases when HbA1c is > 9% [B]

At each visit until therapeutic goals are achieved

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1. See [http://care.diabetesjournals.org/content/37/Supplement_1/S144.full.pdf+html](http://care.diabetesjournals.org/content/37/Supplement_1/S144.full.pdf+html)
2. Consider referral of patients with serum creatinine value >2.0 mg/dl (adult value) or persistent albuminuria to nephrologist for evaluation.
3. Diabetes Care, Volume 37, Supplement 1, January 2014, S25-6, Table 9; [http://care.diabetesjournals.org/content/37/Supplement_1/S14.full.pdf+html](http://care.diabetesjournals.org/content/37/Supplement_1/S14.full.pdf+html)

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 several sources, including the American Diabetes Association Clinical Practice Recommendations 2014 [www.diabetes.org]. Individual patient considerations and advances in medical science may supersede or modify these recommendations.