



<b>SUMMARY OF CLINICAL GUIDELINE</b>	
<b>Disease or Condition</b>	Diabetes (type 1 , type 2 DM ) Diagnosis and Management
<b>Guideline Title:</b>	2017 Standards of Medical Care in Diabetes
<b>Guideline Source:</b>	American Diabetes Association
<b>Guideline Link</b>	<a href="http://care.diabetesjournals.org/content/suppl/2016/12/15/40.Supplement_1.DC1">http://care.diabetesjournals.org/content/suppl/2016/12/15/40.Supplement_1.DC1</a>
<b>Guideline Original Date</b>	January 2017
<b>Guideline Most Recent Revision Date &amp; Any Notable Updates</b>	July 24, 2017
<b>CHC Review Dates(s)</b>	<p>Guidelines and Components in Summary were reviewed and approved on 7/24/17 by the Diabetes Workgroup. Recommendations for adoption referred to the Board of Managers for approval on July 2017.</p> <p>Guideline Approval/Update/Revision Meetings:</p> <ul style="list-style-type: none"> <li>• Approved July 24, 2017</li> <li>• Will be reviewed with updates or at least every two years.</li> </ul>
<b>Guideline Summary</b>	<p>Standards of Medical Care in Diabetes</p> <ol style="list-style-type: none"> <li><b>1. Diagnosis of diabetes mellitus</b></li> <li><b>2. Assessing and monitoring diabetes control</b> <ul style="list-style-type: none"> <li>○ Approach for managing Diabetes in office setting</li> <li>○ Monitoring DM labs, BP and micro/macrovascular complications of DM</li> </ul> </li> <li><b>3. Medication management</b> <ul style="list-style-type: none"> <li>○ Intensification of medication if inadequate glycemic control</li> <li>○ Initiation of insulin and non insulin injectables</li> <li>○ Insulin pumps and continuous glucose monitor systems</li> </ul> </li> <li><b>4. Disease specific education and medical nutrition therapy</b></li> <li><b>5. Management of patients not achieving glycemic targets</b> <ul style="list-style-type: none"> <li>○ Intensification of rx therapy</li> <li>○ Diabetes self-management education &amp; support</li> <li>○ 1:1 meal plan with registered dietitian</li> </ul> </li> </ol>
<b>Implementation Components</b> <b>Identify component(s) of the guideline CHC should adopt.</b>	<p><b>Early diagnosis and identification of patients with DM or pre DM</b></p> <p><u>DM criteria:</u></p> <ul style="list-style-type: none"> <li>• Fasting glucose <math>\geq</math> 126 mg/dL. (Fasting is defined as no caloric intake for at least 8 h)</li> <li>• 2-h PG&gt;200 mg/dL during an OGTT.</li> <li>• A1C <math>\geq</math> 6.5%</li> <li>• Any patient with classic symptoms of hyperglycemia or hyperglycemic crisis, with random plasma glucose &gt;200 mg/dL</li> </ul> <p><u>Pre DM criteria:</u></p>



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	<ul style="list-style-type: none"><li>• Fasting glucose 101-125 (impaired fasting glucose)</li><li>• A1C : 5.7% - 6.4%</li></ul> <p><b>Screen high risk patients</b></p> <p>Criteria for Testing for Diabetes or Prediabetes in Asymptomatic Adults:</p> <ol style="list-style-type: none"><li>1. Testing should be considered in overweight or obese BMI <math>\geq 25</math> (or <math>\geq 23</math> kg in Asian Americans) adults who have one or more of the following risk factors:<ul style="list-style-type: none"><li>• A1C <math>\geq 5.7\%</math></li><li>• First-degree relative with diabetes</li><li>• High-risk race/ethnicity (e.g., African American, Latino, Native American, Asian American, Pacific Islander)</li><li>• Women who were diagnosed with GDM</li><li>• History of CVD</li><li>• Hypertension (<math>\geq 140/90</math> mmHg or on therapy for hypertension)</li><li>• HDL cholesterol level <math>&lt; 35</math> mg/dL and/or a triglyceride level <math>&gt; 250</math> mg/dL</li><li>• Women with polycystic ovary syndrome</li><li>• Physical inactivity</li><li>• Other clinical conditions associated with insulin resistance (e.g., severe obesity, acanthosis nigricans)</li></ul></li><li>2. For all patients, testing should begin at age 45 years.</li><li>3. If results are normal, testing should be repeated at a minimum of 3-year intervals, with consideration of more frequent testing depending on initial results (e.g., <u>those with pre-diabetes should be tested yearly</u>).</li></ol>
<p><b>Other Clinical Considerations</b></p>	<p><b>Annual Laboratory Evaluation of Co-Morbidities w DM</b></p> <ul style="list-style-type: none"><li>• A1C*</li><li>• Fasting lipid profile, including total, LDL, and HDL cholesterol and triglycerides</li><li>• Liver function tests</li><li>• Spot urinary albumin to creatinine ratio</li><li>• Serum creatinine and estimated glomerular filtration rate</li><li>• Thyroid-stimulating hormone in patients with type 1 diabetes</li></ul> <p><b>*A1C Testing</b></p> <ul style="list-style-type: none"><li>• Perform the A1C test at least two times a year in patients who are meeting treatment goals (and who have stable glycemic control).</li><li>• Perform the A1C test quarterly in patients whose therapy has changed or who are not meeting glycemic goals.</li></ul> <p><b>A1C Goals</b></p> <ul style="list-style-type: none"><li>• A reasonable A1C goal for many non-pregnant adults is <math>&lt; 7\%</math>.</li><li>• Providers might reasonably suggest a more stringent A1C goal (such as <math>&lt; 6.5\%</math>) for selected individual patients if this can be achieved without significant hypoglycemia or other adverse effects of treatment (i.e. polypharmacy). Appropriate patients might include those with short duration of diabetes, type 2 diabetes treated with lifestyle or metformin only, long life expectancy, or no significant cardiovascular disease.</li><li>• Less stringent A1C goals (such as <math>&lt; 8\%</math>) may be appropriate for patients with a</li></ul>



history of severe hypoglycemia, limited life expectancy, advanced microvascular or macrovascular complications, extensive comorbid conditions, or long-standing diabetes in whom the goal is difficult to achieve despite diabetes self-management education, appropriate glucose monitoring, and effective doses of multiple glucose-lowering agents.

**Blood Pressure**

- 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.
- Most patients with diabetes and hypertension should be treated to a systolic blood pressure goal of <140 mmHg and a diastolic blood pressure goal < 90 mmHg.
- A DBP of <80 mmHg may still be appropriate for patients with long life expectancy, chronic kidney disease, elevated urinary albumin excretion, evidence of cardiovascular disease, or additional risk factors such as dyslipidemia, smoking, or obesity.

Patients with confirmed office-based blood pressure >140/90 mmHg:

- A. Lifestyle modifications.
- B. Prompt initiation and timely titration of pharmacologic therapy to achieve blood pressure goals.

Patients with confirmed office-based blood pressure >160/100 mmHg :

- A. Lifestyle modifications.
- B. Prompt initiation and timely titration of two drugs or a single pill combination of drugs demonstrated to reduce cardiovascular events in patients with diabetes.
- C. An ACE inhibitor or angiotensin receptor blocker, at the maximum tolerated dose indicated for blood pressure treatment, is the recommended first-line treatment for hypertension in patients with diabetes and urinary albuminuria.

**Eye Exam**

Type 1 Diabetes:

- 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.

Type 2 Diabetes:

- Patients with type 2 diabetes should have an initial dilated and comprehensive eye examination at the time of the diabetes diagnosis.

**Foot exam (checking for peripheral neuropathy)**

All patients should be assessed for diabetic peripheral neuropathy:

- Type 1 DM: starting 5 years after the diagnosis and at least annually.
- Type 2 DM : at time of diagnosis and at least annually.

**Education**



- All individuals with diabetes should participate in diabetes self-management education to facilitate the knowledge, skills, and ability necessary for diabetes self-care .
- Overall objectives of Diabetes education is to support informed decision making, self-care behaviors, problem solving, and active collaboration with the health care team to improve clinical outcomes, health status, and quality of life in a cost-effective manner.

**Medical Nutrition Therapy (MNT)**

- All individuals with diabetes should receive individualized medical nutrition therapy (MNT) annually, preferably provided by a registered dietitian who is knowledgeable and skilled in providing.
  - Diabetes specific MNT delivered by a registered dietitian is associated with A1C decreases of 0.3–1% for people with type 1 diabetes and 0.5–2% for people with type 2 diabetes.
- Patients with prediabetes should be referred to an intensive behavioral lifestyle intervention program modeled on the Diabetes Prevention Program to achieve and maintain 7% loss of initial body weight and increase moderate-intensity physical activity (such as brisk walking) to at least 150 min/week. (58 % risk reduction in progression to T2DM)
- At each patient encounter, BMI should be calculated and documented in the medical record.

**Metabolic Surgery**

- Metabolic surgery should be recommended to treat type 2 diabetes in appropriate surgical candidates with BMI > 40 or BMI 37.5 > in Asian Americans, regardless of the level of glycemic control or complexity of glucose-lowering regimens, and in adults with BMI 35.0 -39.9 (or 32.5–37.4 in Asian Americans) when hyperglycemia is inadequately controlled despite lifestyle and optimal medical therapy.
- Metabolic surgery should be considered for adults with type 2 diabetes and BMI 30.0–34.9.
- (BMI 27.5–32.4 in Asian Americans) if hyperglycemia is inadequately controlled despite optimal medical control by either oral or injectable medications (including insulin).



<p><b>CHC Adoption and Implementation Resources:</b></p> <p>List of existing and suggested guideline adoption resources for CHC members.</p>	<p><b>Diabetes Care and Clinical Guideline Resources for CHC Members:</b></p> <p><u>ADA Guidelines and Supplemental documents are available through the:</u></p> <ul style="list-style-type: none"> <li>○ CHC Website and CHC App</li> <li>○ EPIC Clinical Links page</li> </ul> <p><u>Diabetes Risk Assessment is available:</u></p> <ul style="list-style-type: none"> <li>○ As an online test: <a href="http://www.diabetes.org/are-you-at-risk/diabetes-risk-test/?referrer=https://www.google.com/">http://www.diabetes.org/are-you-at-risk/diabetes-risk-test/?referrer=https://www.google.com/</a></li> <li>○ For download/printing: <a href="http://main.diabetes.org/dorg/PDFs/risk-test-paper-version.pdf">http://main.diabetes.org/dorg/PDFs/risk-test-paper-version.pdf</a></li> <li>○ In EPIC Hyperspace             <ul style="list-style-type: none"> <li>○ As a column in inpatient list and the Risk Profile Report</li> <li>○ Ambulatory workup</li> </ul> </li> <li>○ Links provided through the CHC website and ShareFile/Guidelines</li> </ul> <ul style="list-style-type: none"> <li>● A patient with newly diagnosed DM could benefit from Diabetes self-management education and Medical Nutrition therapy (ADA guideline).             <ul style="list-style-type: none"> <li>○ Because DSME and DSMS can improve outcomes and reduce costs , DSME and MNT are reimbursed by third-party payers.</li> <li>○ DSME: Initial benefit: 10 hours DSME 1<sup>st</sup> year, then annual follow up: 2 hours/year with Medicare(coverage varies w commercial)</li> <li>○ Medical Nutrition therapy: Initial 3 hours with Medicare/2 hour follow up.</li> </ul> </li> <li>● Consider referral to Endocrinology for Uncontrolled DM after 1 or 2 consecutive A1C &gt; 9%.             <ul style="list-style-type: none"> <li>○ ADA guidelines: For patients with type 2 diabetes who are not achieving glycemic goals, insulin therapy should not be delayed.</li> <li>○ Initiation and titration of Insulin and/or non insulin injectable medications.</li> </ul> </li> </ul>
<p><b>Other Supplemental Documents</b></p> <p>Misc. other available supplemental documents to support guideline adoption.</p>	<p><b>Comprehensive Diabetes Algorithm</b></p> <p>Sponsor: American Academy of Clinical Endocrinology  <a href="https://www.aace.com/files/aace_algorithm.pdf">https://www.aace.com/files/aace_algorithm.pdf</a></p> <ol style="list-style-type: none"> <li>i. Complications-Centric Model for Care of the Overweight/Obese Patient</li> <li>ii. Prediabetes Algorithm</li> <li>iii. Goals of Glycemic Control</li> <li>iv. Glycemic Control Algorithm</li> <li>v. Algorithm for Adding/Intensifying Insulin</li> <li>vi. CVD Risk Factor Modifications Algorithm</li> <li>vii. Profiles of Antidiabetic Medications</li> <li>viii. Principles for Treatment of Type 2 Diabetes</li> </ol> <p><b>Standards of Medical Care in Diabetes: Abridged for Primary Care Providers</b></p> <p>Sponsor: American Diabetes Association  <a href="#">(Abridged standards)</a></p> <p><b>Standards of Medical Care in Diabetes Pocket Chart</b></p>

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	<p>Sponsor: American Diabetes Association  <a href="#">Purchase this pocket-sized, folding chart.</a></p>
<p><b>Quality Measures and Associated Programs</b></p> <p>Listing of current CHC and ACO diabetes quality measures.</p>	<p><b>Comprehensive Diabetes Care</b></p> <p>ACO Quality Measures: BCBSIL PPO ACO; Associated Program: HEDIS</p> <ul style="list-style-type: none"> <li>HbA1c Testing</li> <li>HbA1c Control (&lt;8.0%)</li> <li>Blood Pressure Control &lt; 140/90 mmHg</li> </ul> <p>ACO Quality Measures: Next Generation ACO Measures</p> <ul style="list-style-type: none"> <li>HbA1c Poor Control (ACO# 27)</li> <li>Diabetes Eye Exam (ACO# 7)</li> <li>All-Cause Unplanned Admissions for Patients with Diabetes (ACO# 36)</li> </ul>
<p><b>Strategies to Improve Performance</b></p>	<p>To improve scores on this measure:</p> <ul style="list-style-type: none"> <li>Follow standard of care guidelines (ADA).</li> <li>Ensure proper documentation in the medical record.</li> <li>Submit claims and encounter data correctly and in a timely manner.</li> <li>Follow testing interval guidelines for A1C; most current result in a calendar year is reflected on quality measures.</li> </ul>
<p><b>Coding and Documentation Tips</b></p>	<p>Diabetes Mellitus is an HCC (Hierarchical Condition Category).  The diabetes mellitus codes are combination codes that include:</p> <ol style="list-style-type: none"> <li>The type of diabetes mellitus</li> <li>The body system(s) affected</li> <li>The complications affecting the body system(s)</li> </ol> <p>A good standard of practice is to document a cause and effect relationship by using linkage terms. Examples: • PAD Due to DM • CKD Due to DM • PVD Due to DM • Diabetic Neuropathy • Peripheral Neuropathy Due to DM • Etiology of Neuropathy is DM • Diabetic Retinopathy • Diabetic Cataract • Diabetic Macular Edema.</p> <p>A coder cannot assume that there is a causal relationship between two diagnoses. One diagnosis code MUST be clearly documented in the medical record as being directly related to the other.</p>
<p><b>CHC Diabetes Guideline Workgroup</b></p>	<p>2017 Participants:</p> <ol style="list-style-type: none"> <li>Dr. N. Jayaram</li> <li>Dr. E. Sankary</li> <li>C. Boss</li> <li>K. Kraker (Staff Lead)</li> <li>M.Zeglen</li> </ol>
<p><b>Misc. References</b></p>	

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*\*These guidelines are provided only as “guides” or assistance for physicians making clinical decisions regarding the care of their patients and may not apply to all patients and all clinical situations. Thus, they are not intended to override clinicians' judgment. As such, they cannot substitute the individual judgment brought to each clinical situation by the patient's physician. As with all clinical reference resources, they reflect the best understanding of the science of medicine at the time of publication, but they should be used with the clear understanding that continued research may result in new knowledge and recommendations*