

<b>Measure Title</b>	MONITORING FOR DIABETIC NEPHROPATHY		
<b>Disease State</b>	Diabetes	<b>Indicator Classification<sup>1</sup></b>	Screening
<b>Strength of Recommendation<sup>2</sup></b>	B		
<b>Physician Specialties</b>	Endocrinology, Family Practice, Gerontology, Internal Medicine		
<b>Clinical Rationale</b>	<p><b>Disease Burden</b></p> <ul style="list-style-type: none"> <li>• Diabetes is a chronic, serious disease that affects approximately 14.7 million Americans. This disease is the leading cause of new cases of blindness among adults aged 20-74, the leading cause of end-stage renal disease, and a major contributing cause of lower extremity amputations.[1]</li> <li>• Diabetes is the leading cause of end-stage renal disease (ESRD), accounting for 44 percent of new cases. In 2001, over 42,000 people with diabetes began treatment for ESRD and over 142,000 people with ESRD due to diabetes were living on chronic dialysis or with a kidney transplant.[2, 3]</li> </ul> <p><b>Reason for Indicated Intervention or Treatment</b></p> <ul style="list-style-type: none"> <li>• Evidence supports that screening and early treatment for diabetic nephropathy is associated with a reduced risk and decreased rate of progression to ESRD.[3-5] In addition, micro-albuminuria is a well-established marker of increased cardiovascular disease (CVD) risk.[6]</li> </ul> <p><b>Evidence Supporting Intervention or Treatment</b></p> <ul style="list-style-type: none"> <li>• Detection of nephropathy in its earliest stages affords the opportunity to provide patients with effective treatments to slow the progression of renal disease. For example, at least one large prospective randomized trial provided evidence that adequate blood pressure control can reduce the development of severe renal disease.[7-9] In addition, several large prospective randomized trials have demonstrated that reduction of blood pressures specifically with ACE inhibitors or ARBs provides a selective benefit over other classes of anti-hypertensive medications in delaying the progression from micro- to macro-albuminuria and can slow the decline in glomerular filtration in patients with macroalbuminuria.[7, 10-13] Further support for use of ACE inhibitors in patients with diabetes and micro-albuminuria was provided in another trial which demonstrated the ability of this class of medication to reduce severe CVD.[14]</li> <li>• Experts suggest that managing urine micro-albumin to maintain normal or near normal range may improve renal and cardiovascular prognosis; this approach has not been formally evaluated in prospective trials.[8, 15]</li> </ul> <p><b>Clinical Recommendations</b></p> <ul style="list-style-type: none"> <li>• The American Diabetes Association recommend annual screening of diabetics for micro-albuminuria to allow early identification of patients with nephropathy.[8, 16]</li> </ul>		
<b>Source</b>	Adapted from Health Plan Employer Data and Information Set (HEDIS®) 2006 Technical Specification; HBI removed codes to identify urine macroalbumin test. Also, maintained code for prior year for comprehensiveness.		

<b>Denominator</b>	Continuously enrolled members ages 18 - 75 years by the end of the measurement year who were identified as having diabetes during the measurement year or year prior.
<b>Denominator Exclusion</b>	<p>Members in the denominator with a diagnosis of polycystic ovaries (at any time in the member's history) who did not receive a diagnosis of diabetes during the measurement year or year prior, or members diagnosed with gestational diabetes or steroid-induced diabetes during the measurement year.</p> <p>Members with a diagnosis of polycystic ovaries at any time prior to the end of the reporting year who did not receive a diagnosis of diabetes during the measurement year or year prior.</p>
<b>Numerator</b>	Members who were screened for diabetic nephropathy or who had evidence of treatment for or diagnosis of diabetic nephropathy during the measurement year.
<b>Interpretation of Score</b>	High score implies better performance.
<b>Physician Attribution</b>	Score all physicians (in the selected specialties) who saw the member during the reporting year.
<b>External Files Required for Analysis</b>	<p>Denominator file name: <i>Diabetes_den_medlist_2006.xls</i></p> <p>Source: NCQA website</p> <p>Updated Annually</p>
<b>References</b>	<ol style="list-style-type: none"> <li>1. CDC. <i>National Diabetes Surveillance System</i>. 2004 [cited 2004 November 17th]; Available from: <a href="http://www.cdc.gov/diabetes/statistics/prev/national/figpersons.htm">http://www.cdc.gov/diabetes/statistics/prev/national/figpersons.htm</a></li> <li>2. USDHHS. <i>National Diabetes Fact Sheet</i>. 2003 [cited 2004 November 5th]; Available from: <a href="http://www.cdc.gov/diabetes/pubs/pdf/ndfs_2003.pdf">http://www.cdc.gov/diabetes/pubs/pdf/ndfs_2003.pdf</a>.</li> <li>3. <i>Diabetic nephropathy: diagnosis, prevention, and treatment</i>. Diabetes Care, 2005. <b>28</b>(1): p. 164-76.</li> <li>4. Bennett, P.H., et al., <i>Screening and management of microalbuminuria in patients with diabetes mellitus: recommendations to the Scientific Advisory Board of the National Kidney Foundation from an ad hoc committee of the Council on Diabetes Mellitus of the National Kidney Foundation</i>. Am J Kidney Dis, 1995. <b>25</b>(1): p. 107-12.</li> <li>5. Borch-Johnsen, K., et al., <i>Is screening and intervention for microalbuminuria worthwhile in patients with insulin dependent diabetes?</i> Bmj, 1993. <b>306</b>(6894): p. 1722-5.</li> <li>6. Garg, J.P. and G.L. Bakris, <i>Microalbuminuria: marker of vascular dysfunction, risk factor for cardiovascular disease</i>. Vasc Med, 2002. <b>7</b>(1): p. 35-43.</li> <li>7. <i>Tight blood pressure control and risk of macrovascular and microvascular complications in type 2 diabetes: UKPDS 38. UK Prospective Diabetes Study Group</i>. Bmj, 1998. <b>317</b>(7160): p. 703-13.</li> <li>8. <i>Nephropathy in diabetes</i>. Diabetes Care, 2004. <b>27</b>(Suppl 1): p. S79-83.</li> <li>9. Schjoedt, K.J., et al., <i>Beneficial impact of spironolactone in diabetic nephropathy</i>. Kidney Int, 2005. <b>68</b>(6): p. 2829-36.</li> <li>10. Lewis, E.J., et al., <i>The effect of angiotensin-converting-enzyme inhibition on diabetic nephropathy. The Collaborative Study Group</i>. N Engl J Med, 1993. <b>329</b>(20): p. 1456-62.</li> </ol>

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14. *Effects of ramipril on cardiovascular and microvascular outcomes in people with diabetes mellitus: results of the HOPE study and MICRO-HOPE substudy*. Heart Outcomes Prevention Evaluation Study Investigators. Lancet, 2000. **355**(9200): p. 253-9.
15. *Standards of medical care in diabetes*. Diabetes Care, 2004. **27 Suppl 1**: p. S15-35.
16. ADA, *Standards of Medical Care in Diabetes* Diabetes Care, 2006. **29** ((Supplement 1): S4).

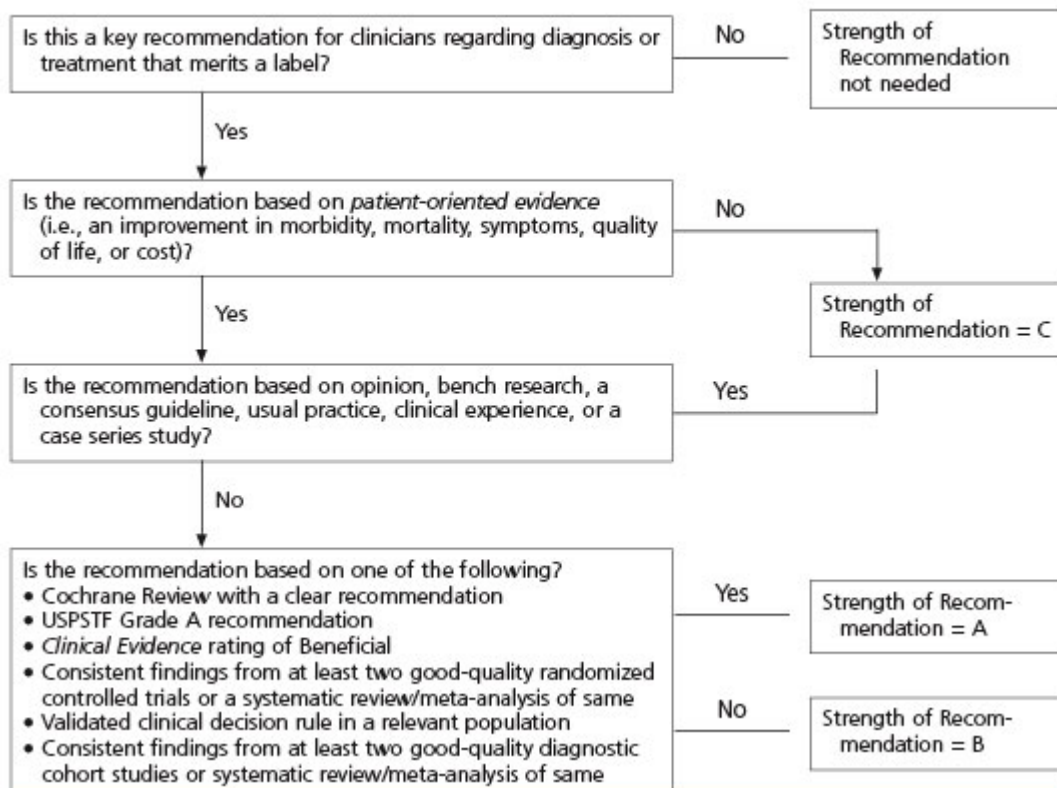
<sup>1</sup> **Indicator Classification** (Adapted from Health Plan Employer Data Information Set (HEDIS®) technical specifications)

<b>Diagnosis</b>	Measures applicable to patients receiving diagnostic workups for a symptom or condition that delineate appropriate laboratory or radiological testing to be performed (e.g. evaluation of thyroid nodule; pregnancy test in patients with vaginal bleeding or abdominal pain)
<b>Effectiveness of Care</b>	
<b>Prevention</b>	Measures applicable to asymptomatic individuals that are designed to prevent the onset of the targeted condition (e.g. immunizations).
<b>Screening</b>	Measures applicable to asymptomatic patients who have risk factors or pre-clinical disease, but in whom the condition has not become clinically apparent (e.g. pap smears; screening for elevated blood pressure).
<b>Disease Management</b>	Measures applicable to individuals diagnosed with a condition that are part of the treatment or management of the condition (e.g. cholesterol reduction in patients with diabetes; radiation therapy following breast conserving surgery; appropriate follow-up after acute event).
<b>Medication Monitoring</b>	Measures applicable to patients taking medications with narrow therapeutic windows and / or potential preventable significant side effects or adverse reactions (e.g. thyroid stimulating hormone (TSH) testing after levothyroxine dose change; hepatic enzyme monitoring for patients using antimycotic pharmacotherapy)
<b>Medication Adherence</b>	Measures applicable to patients taking medications for chronic conditions that are designed to assess patient adherence to medication (e.g. adherence to lipid lowering medication).

**Utilization** Measures applicable to patients receiving treatment for a symptom or condition that advocate appropriate utilization of laboratory and pharmaceutical resources (e.g. conservative use of imaging for low back pain; inappropriate use of antibiotics for viral upper respiratory infection).

<sup>2</sup> Strength of Recommendation

**Strength of Recommendation Based on a Body of Evidence**



**FIGURE 2.** Algorithm for determining the strength of a recommendation based on a body of evidence (applies to clinical recommendations regarding diagnosis, treatment, prevention, or screening). While this algorithm provides a general guideline, authors and editors may adjust the strength of recommendation based on the benefits, harms, and costs of the intervention being recommended. (USPSTF = U.S. Preventive Services Task Force)