

Client	HEALTH BENCHMARKS, INC. STANDARD ALGORITHM		
Measure Title	GLYCOSYLATED HEMOGLOBIN (HBA1C) TEST FOR DIABETICS		
Disease State	Diabetes	Indicator Classification¹	Prevention
Strength of Recommendation²	B		
Organizations Providing Recommendation	American Diabetes Association		
Clinical Intent	To ensure that all diabetic members ages 18-75 receive at least 1 glycosylated hemoglobin test during the measurement year.		
Background	<p>Disease Burden</p> <ul style="list-style-type: none"> 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] <p>Reason for Indicated Treatment or Intervention</p> <ul style="list-style-type: none"> Screening for hemoglobin A1C levels and improved glycemic control for patients with diabetes is associated with a reduced risk of developing microvascular diabetic complications (eye, kidney, and nerve disease).[2-4] <p>Evidence Supporting Intervention or Treatment</p> <ul style="list-style-type: none"> Detection of elevated hemoglobin A1C affords the opportunity to provide patients with effective treatments to improve their glycemic control and decrease the risk of or delay the onset of diabetic vascular related complications. Prospective randomized clinical trials such as the Diabetes Control and Complications Trial and the United Kingdom Prospective Diabetes Study have demonstrated that improved glycemic control is associated with decreased rates of retinopathy, nephropathy, and neuropathy.[5-9] 		
Clinical Recommendations	<ul style="list-style-type: none"> The ADA recommends that doctors perform the A1C test at least two times a year in patients who are meeting treatment goals (and who have stable glycemic control)The ADA also recommends performing the A1C test quarterly in patients whose therapy has changed or who are not meeting glycemic goals. Use of point-of-care testing for A1C allows for timely decisions on therapy changes, when needed.[10-12] 		

Source Healthcare Effectiveness Data and Information Set (HEDIS®) 2009 Technical Specification for Physician Measurement

Denominator

Denominator Definition 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.

Denominator Index Date N/A

Denominator Encounters/Claims Criteria ICD-9 diagnosis code(s): 250.xx, 357.2x, 362.0x, 366.41, 648.0x
CPT-4 code(s): 92002-92014, 99201-99205, 99211-99215, 99217-99220, 99221-99223, 99231-99233, 99238, 99239, 99241-99245, 99301-99313, 99315, 99316, 99318, 99321-99328, 99331-99337, 99341-99345, 99347-99350, 99251-99255, 99261-99263, 99281-99285, 99291, 99384-99387, 99394-99397, 99401-99404, 99411, 99412, 99420, 99429, 99455, 99456,
UB revenue code(s): 010x, 0110-0114, 0118, 0119, 0120-0124, 0128, 0129, 0130-0134, 0138, 0139, 0140-0144, 0148, 0149, 0150-0154, 0158, 0159, 016x, 019x, 051x, 020x-022x, 045x, 0520-0529, 055x, 057x-059x, 066x, 072x, 077x, 080x, 082x-085x, 088x, 0981, 0982, 0983, 0987

Denominator Exclusion

Denominator Exclusion Definition Members in the denominator with a diagnosis of polycystic ovaries at any time prior to the end of the measurement year who did **NOT** have a face-to-face encounter with a diagnosis of diabetes in any setting during the measurement year or year prior, or members diagnosed with gestational diabetes or steroid-induced diabetes during the measurement year or year prior who did **NOT** have a face-to-face encounter with a diagnosis of diabetes in any setting during the measurement year or year prior.

Note: The denominators for all adult diabetes care measures must be the same (NCQA)

Denominator Exclusion Claims Criteria ICD-9 diagnosis code(s): 250.xx, 251.8x, 256.4x, 357.2x, 362.0x, 366.41, 648.0x, 648.8x, 962.0x

CPT-4 code(s): 92002-92014, 99201-99205, 99211-99215, 99217-99220, 99221-99223, 99231-99233, 99238, 99239, 99241-99245, 99251-99255, 99261-99263, 99281-99285, 99291, 99301-99313, 99315, 99316, 99318, 99321-99328, 99331-99337, 99341-99345, 99347-99350, 99384-99387, 99394-99397, 99401-99404, 99411, 99412, 99420, 99429, 99455, 99456

UB revenue code(s): 010x, 0110-0114, 0118, 0119, 0120-0124, 0129, 0130-0134, 0128, 0138, 0139, 0140-0144, 0148, 0149, 0150-0154, 0158, 0159, 016x, 019x,

020x-022x, 045x, 051x, 0520-0529, 055x, 057x-059x, 066x, 072x, 080x, 0981, 077x, 082x-085x, 088x, 0982, 0983, 0987

Numerator

Numerator Definition Members who received at least 1 glycosylated hemoglobin (HbA1c) test during the measurement year.

Numerator Claims Criteria CPT-4 code(s): 83036, 83037

LOINC code(s): 4548-4, 4549-2, 17856-6 (if available)

CPT category II: 3044F-3047F (if available)

Physician Attribution

Physician Attribution Description If client data does not contain PCP:

Score all physicians (in the selected specialties) who saw the member during the measurement year

If client data contains PCP:

Score all primary care physicians who were assigned to the member during the measurement year.

References

1. CDC. *National Diabetes Surveillance System*. 2004 [cited 2004 November 17th]; Available from: <http://www.cdc.gov/diabetes/statistics/prev/national/figpersons.htm>
2. *Standards of medical care in diabetes*. Diabetes Care, 2004. **27 Suppl 1**: p. S15-35.
3. Woolf, S.H., et al., *Controlling blood glucose levels in patients with type 2 diabetes mellitus. An evidence-based policy statement by the American Academy of Family Physicians and American Diabetes Association*. J Fam Pract, 2000. **49**(5): p. 453-60.
4. Clark, M.J., Jr., J.J. Sterrett, and D.S. Carson, *Diabetes guidelines: a summary and comparison of the recommendations of the American Diabetes Association, Veterans Health Administration, and American Association of Clinical Endocrinologists*. Clin Ther, 2000. **22**(8): p. 899-910; discussion 898.
5. *Retinopathy and nephropathy in patients with type 1 diabetes four years after a trial of intensive therapy. The Diabetes Control and Complications Trial/Epidemiology of Diabetes Interventions and Complications Research Group*. N Engl J Med, 2000. **342**(6): p. 381-9.
6. Stratton, I.M., et al., *Association of glycaemia with macrovascular and microvascular complications of type 2 diabetes (UKPDS 35): prospective observational study*. Bmj, 2000. **321**(7258): p. 405-12.
7. *Intensive blood-glucose control with sulphonylureas or insulin compared*

- with conventional treatment and risk of complications in patients with type 2 diabetes (UKPDS 33). UK Prospective Diabetes Study (UKPDS) Group. Lancet, 1998. 352(9131): p. 837-53.*
8. *Tight blood pressure control and risk of macrovascular and microvascular complications in type 2 diabetes: UKPDS 38. UK Prospective Diabetes Study Group. Bmj, 1998. 317(7160): p. 703-13.*
 9. *The effect of intensive treatment of diabetes on the development and progression of long-term complications in insulin-dependent diabetes mellitus. The Diabetes Control and Complications Trial Research Group. N Engl J Med, 1993. 329(14): p. 977-86.*
 10. *Standards of medical care in diabetes. Diabetes Care, 2005. 28 Suppl 1: p. S4-S36.*
 11. *Saudek, C.D., R.L. Derr, and R.R. Kalyani, Assessing glycemia in diabetes using self-monitoring blood glucose and hemoglobin A1c. Jama, 2006. 295(14): p. 1688-97.*
 12. *Standards of medical care in diabetes--2008. Diabetes Care, 2008. 31 Suppl 1: p. S12-54.*

CONFIDENTIAL

¹ **Indicator Classification** (Adapted from HEDIS® technical specifications)

Diagnosis	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)
Effectiveness of Care	
Prevention	Measures applicable to asymptomatic individuals that are designed to prevent the onset of the targeted condition (e.g. immunizations).
Screening	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).
Disease Management	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).
Medication Monitoring	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)
Medication Adherence	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).

² Strength of Recommendation

Strength of Recommendation Based on a Body of Evidence

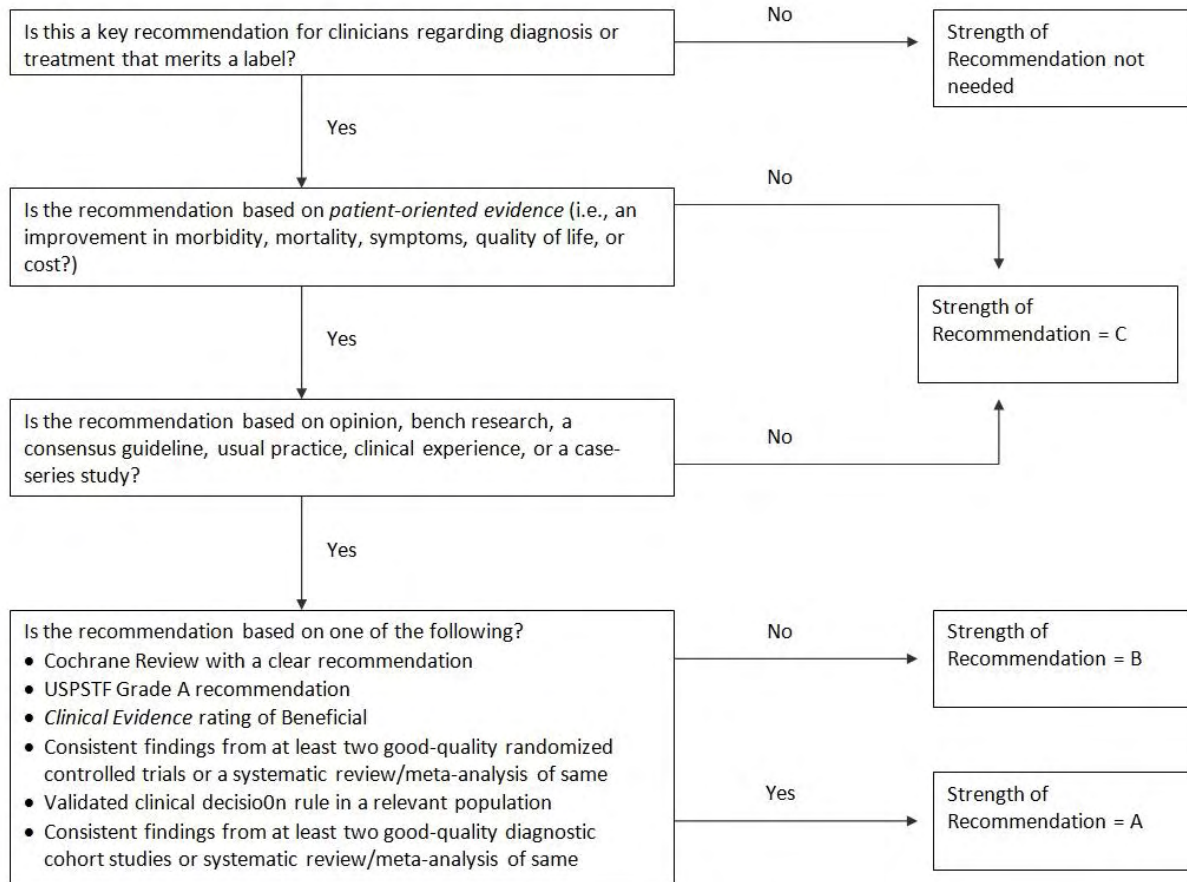


FIGURE 2. Algorithm for determining the strength of a recommendation based on a body of evidence (applies to clinical recommendations regarding diagnosis, treatment, prevention, or screening). While this algorithm provides a general guideline, authors and editors may adjust the strength of recommendation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