# Glycosylated Hemoglobin (HbA1c) Testing for Diabetics

## Measure Title
GLYCOSYLATED HEMOGLOBIN (HBA1C) TEST FOR DIABETICS

## Disease State
Diabetes

## Indicator Category
Effectiveness – Tertiary Prevention

## Strength of Recommendation
A (HBI)

## Quality of Evidence
Good I

## Physician Specialties
Primary: Family Practice, General Practice, Internal Medicine, Mixed Specialty

## Disease Burden
- Diabetes is a chronic, serious disease that affects approximately 13.2 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]

## Reason for Indicated Intervention or Treatment
- 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]

## Evidence supporting Intervention or Treatment
- 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 Recommendation
- The American Diabetes Association, the American Association of Clinical Endocrinologists/American College of Endocrinology (AACE/ACE), the American Board of Family Practice, the Centers for Disease Control and Prevention, and the Veterans Affairs Administration all recommend that glycosylated hemoglobin (Hgb A1C) be monitored. These organizations differ on the frequency with which this level should be checked and what the goal level should be.[4, 10-13]

## Comparative Baseline Data
- An estimated 90 percent of adults with diabetes had a hemoglobin A1c measurement at least once in past year.[14]

## Denominator
- Continuously enrolled members aged 18 to 75 years by the end of the reporting period who were identified as having diabetes during the reporting period or year prior.

## Denominator Exclusion
- 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 reporting period or year prior, or members diagnosed with gestational diabetes or...
steroid-induced diabetes during the reporting period.

**Numerator**
Members who received at least one glycosylated hemoglobin (Hb A1C) test during the reporting period.

**Interpretation of Score**
High score implies better performance.

**Physician Attribution**
Score all physicians (in the selected specialties) who saw the member during the reporting year.

**Source**
Health Plan Employer Data and Information Set (HEDIS®) 2005 Technical Specification

**External Files Required for Analysis**
Denominator file name: Diabetes_den_medlist_2005.xls

**References**

1 **Indicator Category** (Adapted from Health Plan Employer Data Information Set (HEDIS®) technical specifications and U.S. Preventive Services Task Force (USPSTF) Methodology)

**Effectiveness**

**Primary Prevention Measures:** Those that are applicable to individuals who are asymptomatic and are designed to prevent the onset of the targeted condition (e.g. immunizations);

**Secondary Prevention Measures:** Those that are 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);

**Tertiary Prevention Measures:** Those that are applicable to individuals who are diagnosed with a condition and are part of the treatment or management of patients with that condition (e.g. cholesterol reduction in patients with diabetes).

2 **Strength of Recommendation** (Based on U.S. Preventive Services Task Force (USPSTF), 3rd Edition Criteria)

A  It is strongly recommended that clinicians provide the service to eligible patients. *There is good evidence that the service improves important health outcomes and that benefits substantially outweigh harms.*

B  It is recommended that clinicians provide the service to eligible patients. *There is at least fair evidence that the service improves important health outcomes and that benefits outweigh harms.*

C  Evidence is insufficient to assess the effects on health outcomes because of limited number or power of studies, important flaws in their design or conduct, gaps in the chain of evidence, or lack of information on important health outcomes.

D  It is recommended that clinicians DO NOT routinely provide the service to eligible patients. *There is at least fair evidence that the service is ineffective or that harms outweigh benefits.*

I  The evidence is insufficient to recommend for or against routinely providing the service. *Evidence that the service is effective is lacking, or poor quality, or conflicting, and the balance of benefits and harms cannot be determined.*

3 **Quality of Evidence** (Based on U.S. Preventive Services Task Force (USPSTF), 3rd Edition Criteria)

**Good:** Evidence includes consistent results from well-designed, well-conducted studies in representative populations that directly assess effects on health outcomes.

**Fair:** Evidence is sufficient to determine effects on health outcomes, but the strength of the evidence is limited by the number, quality, or consistency of individual studies, generalizability to routine practice, or indirect nature of the evidence on health outcomes.

**Poor:** Evidence is insufficient to assess the effects on health outcomes because of limited number or power of studies, important flaws in their design or conduct, gaps in the chain of evidence, or lack of information on important health outcomes.

**Quality of Evidence** (Based on U.S. Preventive Services Task Force (USPSTF), 3rd Edition Criteria)

**I:** Evidence obtained from at least one properly randomized controlled trial.

**II-1:** Evidence obtained from well-designed controlled trials without randomization.

**II-2:** Evidence obtained from well-designed cohort or case-control analytic studies, preferably from more than one center or research group.

**II-3:** Evidence obtained from multiple time series with or without the intervention. Dramatic results in uncontrolled experiments (such as the results of the introduction of penicillin treatment in the...
1940s) could also be regarded as this type of evidence.

III: Opinions of respected authorities, based on clinical experience descriptive studies and case reports or reports of expert committees.