Measure #1 (NQF 0059): Diabetes: Hemoglobin A1c (HbA1c) Poor Control (>9%) – National Quality Strategy
Domain: Effective Clinical Care

2017 OPTIONS FOR INDIVIDUAL MEASURES:
REGISTRY ONLY

MEASURE TYPE:
Intermediate Outcome

DESCRIPTION:
Percentage of patients 18-75 years of age with diabetes who had hemoglobin A1c > 9.0% during the measurement period

INSTRUCTIONS:
This measure is to be reported a minimum of once per performance period for patients with diabetes seen during the performance period. The most recent quality-data code submitted will be used for performance calculation. This measure may be reported by eligible clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding.

Measure Reporting:
The listed denominator criteria is used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions allowed by the measure. The quality-data codes listed do not need to be submitted for registry-based submissions; however, these codes may be submitted for those registries that utilize claims data.

DENOMINATOR:
Patients 18 - 75 years of age with diabetes with a visit during the measurement period

**Denominator Criteria (Eligible Cases):**
Patients 18 through 75 years of age on date of encounter

AND

**Diagnosis for diabetes (ICD-10-CM):**
O24.819, O24.82, O24.83

**AND**

Patient encounter during performance period (CPT or HCPCS): 97802, 97803, 97804, 99201, 99202,
99203, 99204, 99205, 99211, 99212, 99213, 99214, 99215, 99217, 99218, 99219, 99220, 99221, 99222,
99223, 99231, 99232, 99233, 99238, 99239, 99281, 99282, 99283, 99284, 99285, 99291, 99304, 99305,
99306, 99307, 99308, 99309, 99310, 99315, 99316, 99318, 99324, 99325, 99326, 99327, 99328, 99334,
99335, 99336, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350, G0270, G0271,
G0402, G0438, G0439

**AND NOT**

**DENOMINATOR EXCLUSION:**

Hospice services provided to patient any time during the measurement period: G9687

**NUMERATOR:**

Patients whose most recent HbA1c level (performed during the measurement period) is > 9.0%

**Numerator Instructions:**

**INVERSE MEASURE** - A lower calculated performance rate for this measure indicates better clinical care or control. The “Performance Not Met” numerator option for this measure is the representation of the better clinical quality or control. Reporting that numerator option will produce a performance rate that trends closer to 0%, as quality increases. For inverse measures, a rate of 100% means all of the denominator eligible patients did not receive the appropriate care or were not in proper control. Patient is numerator compliant if most recent HbA1c level >9% or is missing a result or if an HbA1c test was not done during the measurement year. Ranges and thresholds do not meet criteria for this indicator. A distinct numeric result is required for numerator compliance.

**Numerator Options:**

**Performance Met:**

Most recent hemoglobin A1c level > 9.0% **(3046F)**

OR

**Performance Met:**

Hemoglobin A1c level was not performed during the measurement period (12 months) **(3046F with 8P)**

OR

**Performance Not Met:**

Most recent hemoglobin A1c (HbA1c) level < 7.0% **(3044F)**

OR

**Performance Not Met:**

Most recent hemoglobin A1c (HbA1c) level 7.0 to 9.0% **(3045F)**

**RATIONALE:**

As the seventh leading cause of death in the U.S., diabetes kills approximately 75,000 people a year (CDC FastStats 2015). Diabetes is a group of diseases marked by high blood glucose levels, resulting from the body’s inability to produce or use insulin (CDC Statistics 2014, ADA Basics 2013). People with diabetes are at increased risk of serious health complications including vision loss, heart disease, stroke, kidney failure, amputation of toes, feet or legs, and premature death. (CDC Fact Sheet 2014).
In 2012, diabetes cost the U.S. an estimated $245 billion: $176 billion in direct medical costs and $69 billion in reduced productivity. This is a 41 percent increase from the estimated $174 billion spent on diabetes in 2007 (ADA Economic 2013).

Reducing A1c blood level results by 1 percentage point (eg, from 8.0 percent to 7.0 percent) helps reduce the risk of microvascular complications (eye, kidney and nerve diseases) by as much as 40 percent (CDC Estimates 2011).

**CLINICAL RECOMMENDATION STATEMENTS:**
American Diabetes Association (2015):

- Lowering A1C to approximately 7% or less has been shown to reduce microvascular complications of diabetes, and, if implemented soon after the diagnosis of diabetes, it is associated with long-term reduction in macrovascular disease. Therefore, a reasonable A1C goal for many nonpregnant adults is 7%. (Level of evidence: B)

- Providers might reasonably suggest more stringent A1C goals (such as 6.5%) for selected individual patients if this can be achieved without significant hypoglycemia or other adverse effects of treatment. 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 (CVD). (Level of evidence: C)

- Less stringent A1C goals (such as 8%) may be appropriate for patients with a history of severe hypoglycemia, limited life expectancy, advanced microvascular or macrovascular complications, extensive comorbid conditions, or long-standing diabetes in whom the general goal is difficult to attain despite diabetes self-management education, appropriate glucose monitoring, and effective doses of multiple glucose-lowering agents including insulin. (Level of evidence: B)

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# 2017 Registry Individual Measure Flow

## #1 NQF #0059: Diabetes: Hemoglobin A1c (HbA1c) Poor Control (>9%)

### Denominator

**Start**

- **Patient Age at Date of Service 18 thru 75 Years**
  - **No**
  - **Yes**
    - **Diagnosis of Diabetes as Listed in Denominator***
      - **No**
      - **Encounter as Listed in Denominator* (1/1/2017 thru 12/31/2017)
        - **No**
        - **Denominator Exclusion**
          - **Yes**
          - **Hospice Services Provided to Patient any time During the Measurement Period G9687 or equivalent**
            - **Yes**
            - **Include in Eligible Population/Denominator (8 patients)**
              - **No**

**Not Included in Eligible Population/Denominator**

### Numerator

- **Most Recent HbA1c Level >9.0%**
  - **Yes**
    - **Data Completeness Met + Performance Met**
      - 3046F or equivalent (3 patients) $a^1$
        - **No**
          - **Hemoglobin A1c Level Was Not Performed During the Measurement Period**
            - **Yes**
              - **Data Completeness Met + Performance Met**
                - 3046F-8P or equivalent (2 patients) $a^2$
                - **No**
                  - **Most Recent HbA1c Level < 7.0%**
                    - **Yes**
                      - **Data Completeness Met + Performance Not Met**
                        - 3044F or equivalent (0 patients) $c^1$
                      - **No**
                        - **Most Recent HbA1c Level 7.0%-9.0%**
                          - **Yes**
                            - **Data Completeness Met + Performance Not Met**
                              - 3045F or equivalent (2 patients) $c^2$
                          - **No**

### Data Completeness

**Include in Eligible Population/Denominator (8 patients)**

### Sample Calculations:

- **Data Completeness**
  - **Performance Met** ($a^1 + a^2 = 5$ patients) + **Performance Not Met** ($c^1 + c^2 = 2$ patients) = **7 patients**
  - **Eligible Population / Denominator (d=8 patients)** = **8 patients**
  - **Data Completeness Numerator (7 patients)** = **8 patients**

- **Performance Rate**
  - **Performance Met** ($a^1 + a^2 = 5$ patients) = **5 patients**
  - **Data Completeness Numerator (7 patients)** = **71.43%**

*See the posted Measure Specification for specific coding and instructions to report this measure.

**A lower calculated performance rate for this measure indicates better clinical care or control.

NOTE: Reporting Frequency: Patient-intermediate
2017 Registry Individual Measure Flow
#1 NQF #0059: Diabetes: Hemoglobin A1c (HbA1c) Poor Control (>9%)

Please refer to the specific section of the Measure Specification to identify the denominator and numerator information for use in reporting this Individual Measure.

1. Start with Denominator

2. Check Patient Age:
   a. If the Age is equal to 18 thru 75 years of age on Date of Service and equals No during the measurement period, do not include in Eligible Patient Population. Stop Processing.
   b. If the Age is equal to 18 thru 75 years of age on date of service and equals Yes during the measurement period, proceed to check Patient Diagnosis.

3. Check Patient Diagnosis:
   a. If Diagnosis of Diabetes as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
   b. If Diagnosis of Diabetes as Listed in the Denominator equals Yes, proceed to check Encounter Performed.

4. Check Encounter Performed:
   a. If Encounter as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
   b. If Encounter as Listed in the Denominator equals Yes, proceed to check Hospice Services Provided to Patient Any Time During the Measurement Period.

5. Check Hospice Services Provided to Patient Any Time During the Measurement Period
   a. If Hospice Services Provided to Patient Any Time During the Measurement Period equals No, include in Eligible population.
   b. If Hospice Services Provided to Patient Any Time During the Measurement Period equals Yes, do not include in Eligible Patient Population. Stop Processing.

6. Denominator Population
   a. Denominator population is all Eligible Patients in the denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d equals 8 patients in the sample calculation.

7. Start Numerator

8. Check Most Recent HbA1c greater than 9.0%:
   a. If Most Recent HbA1c is greater than 9.0% equals Yes, include in Data Completeness Met and Performance Met.
b. Data Completeness Met and Performance Met letter is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a1 equals 3 patients in Sample Calculation.

c. If Most Recent HbA1c is greater than 9.0% equals No, proceed to Hemoglobin A1c Level Was Not Performed During the Measurement Period.

9. Check Hemoglobin A1c Level Was Not Performed During the Measurement Period:
   a. If Hemoglobin A1c Level Was Not Performed During the Measurement Period equals Yes, include in Data Completeness Met and Performance Met.
   b. Data Completeness Met and Performance Met letter is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a2 equals 2 patients in Sample Calculation.
   c. If Hemoglobin A1c Level Was Not Performed During the Measurement Period equals No, proceed to Most Recent HbA1c Level is Less than 7.0%.

10. Check Most Recent HbA1c Level is less than 7.0%:
   a. If Most Recent HbA1c is less than 7.0% equals Yes, include in the Data Completeness Met and Performance Not Met.
   b. Data Completeness Met and Performance Not Met letter is represented as Data Completeness in the Sample Calculation listed at the end of this document. Letter c1 equals 0 patients in the Sample Calculation.
   c. If Most Recent HbA1c is less than 7.0% equals No, proceed to Most Recent HbA1c Level is 7.0% through 9.0%.

11. Check Most Recent HbA1c Level is 7.0% through 9.0%:
   a. If Most Recent HbA1c Level is 7.0% through 9.0% equals Yes, include in Data Completeness Met and Performance Not Met.
   b. Data Completeness Met and Performance Not Met letter is represented in the Data Completeness in the Sample Calculation listed at the end of this document. Letter c2 equals 2 patients in the Sample Calculation.
   c. If Most Recent HbA1c is 7.0% through 9.0% equals No, proceed to Data Completeness Not Met.

12. Check Data Completeness Not Met:
   a. If Data Completeness Not Met equals No, Quality Data Code or equivalent not reported. 1 patient has been subtracted from the Data Completeness numerator in sample calculation.