

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

**2016 PQRS OPTIONS FOR INDIVIDUAL MEASURES:**  
**CLAIMS, REGISTRY**

**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 reporting period** for patients with diabetes seen during the reporting period. The most recent quality-data code submitted will be used for performance calculation. This measure may be reported by clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding.

**Measure Reporting via Claims:**

ICD-10-CM diagnosis codes, CPT or HCPCS codes, and patient demographics are used to identify patients who are included in the measure's denominator. CPT Category II codes are used to report the numerator of the measure.

When reporting the measure via claims, submit the listed ICD-10-CM diagnosis codes, CPT or HCPCS codes, and the appropriate CPT Category II code OR the CPT Category II code with the modifier. The reporting modifier allowed for this measure is: 8P- reason not otherwise specified. There are no allowable performance exclusions for this measure. All measure-specific coding should be reported on the claim(s) representing the eligible encounter.

**Measure Reporting via Registry:**

ICD-10-CM diagnosis codes, CPT codes or HCPCS codes and patient demographics are used to identify patients who are included in the measure's denominator. The listed numerator options are used to report the numerator of 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. There are no allowable performance exclusions for this measure.

**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):** E10.10, E10.11, E10.21, E10.22, E10.29, E10.311, E10.319, E10.321, E10.329, E10.331, E10.339, E10.341, E10.349, E10.351, E10.359, E10.36, E10.39, E10.40, E10.41, E10.42, E10.43, E10.44, E10.49, E10.51, E10.52, E10.59, E10.610, E10.618, E10.620, E10.621, E10.622, E10.628, E10.630, E10.638, E10.641, E10.649, E10.65, E10.69, E10.8, E10.9, E11.00, E11.01, E11.21, E11.22, E11.29, E11.311, E11.319, E11.321, E11.329, E11.331, E11.339, E11.341, E11.349, E11.351, E11.359, E11.36, E11.39, E11.40, E11.41, E11.42, E11.43, E11.44, E11.49, E11.51, E11.52, E11.59, E11.610, E11.618, E11.620, E11.621, E11.622, E11.628, E11.630, E11.638, E11.641, E11.649, E11.65, E11.69, E11.8, E11.9, E13.00, E13.01, E13.10, E13.11, E13.21, E13.22, E13.29, E13.311, E13.319, E13.321, E13.329, E13.331, E13.339, E13.341, E13.349, E13.351, E13.359, E13.36, E13.39, E13.40, E13.41, E13.42, E13.43, E13.44, E13.49, E13.51, E13.52, E13.59, E13.610, E13.618, E13.620, E13.621, E13.622, E13.628, E13.630, E13.638, E13.641, E13.649, E13.65, E13.69, E13.8, E13.9, O24.011, O24.012, O24.013, O24.019, O24.02, O24.03, O24.111, O24.112, O24.113, O24.119, O24.12, O24.13,

O24.311, O24.312, O24.313, O24.319, O24.32, O24.33, O24.811, O24.812, O24.813, O24.819, O24.82, O24.83

**AND**

**Patient encounter during reporting 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, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350, G0270, G0271, G0402, G0438, G0439

**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, and therefore an inverse measure at 100% does not qualify for reporting purposes, however any reporting rate less than 100% does qualify. 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 Quality-Data Coding Options for Reporting Satisfactorily:**

**Most Recent Hemoglobin A1c Level > 9.0%**

**Performance Met: CPT II 3046F:** Most recent hemoglobin A1c level > 9.0%

**OR**

**Hemoglobin A1c not Performed, Reason not Otherwise Specified**

Append a reporting modifier (8P) to CPT Category II code 3046F to report circumstances when the action described in the numerator is not performed and the reason is not otherwise specified.

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

**OR**

**Most Recent Hemoglobin A1c Level ≤ 9.0%**

**Performance Not Met: CPT II 3044F:** Most recent hemoglobin A1c (HbA1c) level < 7.0%

**OR**

**Performance Not Met: CPT II 3045F:** Most recent hemoglobin A1c (HbA1c) level 7.0 to 9.0%

**RATIONALE:**

Diabetes mellitus (diabetes) is a group of diseases characterized by high blood glucose levels caused by the body's inability to correctly produce or utilize the hormone insulin. It is recognized as a leading cause of death and disability in the U.S. and is highly underreported as a cause of death. Diabetes may cause life-threatening, life ending or life-altering complications, including poor circulation, nerve damage or neuropathy in the feet and eventual amputation. Nearly 60-70 percent of diabetics suffer from mild or severe nervous system damage (American Diabetes Association 2009).

Randomized clinical trials have demonstrated that improved glycemic control, as evidenced by reduced levels of glycohemoglobin, correlates with a reduction in the development of microvascular complications in both Type 1 and Type 2 diabetes (Diabetes Control and Complications Trial Research Group 1993; Ohkubo 1995). In particular, the

Diabetes Control and Complications Trial (DCCT) showed that for patients with Type 1 diabetes mellitus, important clinical outcomes such as retinopathy (an important precursor to blindness), nephropathy (which precedes renal failure), and neuropathy (a significant cause of foot ulcers and amputation in patients with diabetes) are directly related to level of glycemic control (Diabetes Control and Complications Trial Research Group 1993). Similar reductions in complications were noted in a smaller study of intensive therapy of patients with Type 2 diabetes by Ohkubo and co-workers, which was conducted in the Japanese population (Ohkubo et al. 1995).

**CLINICAL RECOMMENDATION STATEMENTS:**

American Geriatrics Society (Brown et al. 2003):

For frail older adults, persons with life expectancy of less than 5 years, and others in whom the risks of intensive glycemic control appear to outweigh the benefits, a less stringent target such as 8% is appropriate. (Quality of Evidence: Level III; Strength of Evidence: Grade B)

American Diabetes Association (2009):

Lowering A1C to below or around 7% has been shown to reduce microvascular and neuropathic complications of type 1 and type 2 diabetes. Therefore, for microvascular disease prevention, the A1C goal for non-pregnant adults in general is <7%. (Level of Evidence: A)

In type 1 and type 2 diabetes, randomized controlled trials of intensive versus standard glycemic control have not shown a significant reduction in CVD outcomes during the randomized portion of the trials. Long-term follow-up of the Diabetes Control and Complications Trial (DCCT) and UK Prospective Diabetes Study (UKPDS) cohorts suggests that treatment to A1C targets below or around 7% in the years soon after the diagnosis of diabetes is associated with long-term reduction in risk of macrovascular disease. Until more evidence becomes available, the general goal of <7% appears reasonable for many adults for macrovascular risk reduction. (Level of Evidence: B)

Subgroup analyses of clinical trials such as the DCCT and UKPDS and the microvascular evidence from the Action in Diabetes and Vascular Disease: Preterax and Diamicon MR Controlled Evaluation (ADVANCE) trial suggest a small but incremental benefit in microvascular outcomes with A1C values closer to normal. Therefore, for selected individual patients, providers might reasonably suggest even lower A1C goals than the general goal of <7%, if this can be achieved without significant hypoglycemia or other adverse effects of treatment. Such patients might include those with short duration of diabetes, long life expectancy, and no significant CVD. (Level of Evidence: B)

Conversely, less stringent A1C goals than the general goal of <7% may be appropriate for patients with a history of severe hypoglycemia, limited life expectancy, advanced microvascular or macrovascular complications, and extensive comorbid conditions and those with longstanding 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: C)

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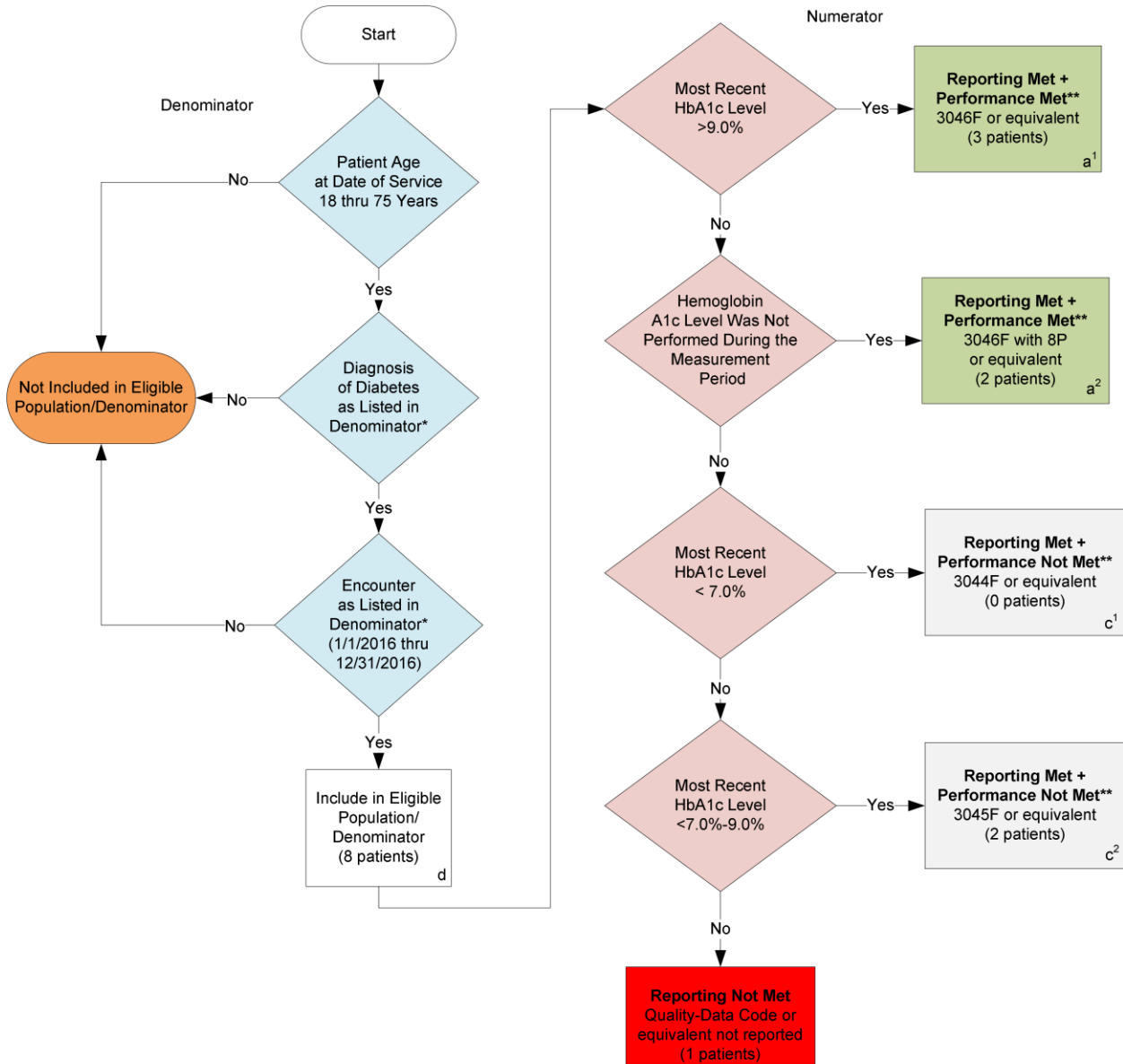
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**2016 Claims/Registry Individual Measure Flow**  
**PQRS #1 NQF #0059: Diabetes Mellitus: Hemoglobin A1c Poor Control**



**SAMPLE CALCULATIONS:**

**Reporting Rate=**  

$$\frac{\text{Performance Met (a}^1\text{+a}^2\text{=5 patients)} + \text{Performance Not Met (c}^1\text{+c}^2\text{=2 patients)}}{\text{Eligible Population / Denominator (d=8 patients)}} = \frac{7 \text{ patients}}{8 \text{ patients}} = 87.50\%$$

**Performance Rate\*\*=**  

$$\frac{\text{Performance Met (a}^1\text{+a}^2\text{=5 patients)}}{\text{Reporting Numerator (7 patients)}} = \frac{5 \text{ patients}}{7 \text{ patients}} = 71.43\%$$

\*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 control and care.  
 NOTE: Reporting Frequency – Patient-intermediate

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 The measure diagrams were developed by CMS as a supplemental resource to be used in conjunction with the measure specifications. They should not be used alone or as a substitution for the measure specification.

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**2016 Claims/Registry Individual Measure Flow**  
**PQRS #1 NQF #0059: Diabetes Mellitus: Hemoglobin A1c Poor Control**

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, include in the Eligible population.
5. 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.
6. Start Numerator
7. Check Most Recent HbA1c greater than 9.0%:
  - a. If Most Recent HbA1c is greater than 9.0% equals Yes, include in Reporting Met and Performance Met.
  - b. Reporting Met and Performance Met letter is represented in the Reporting Rate 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.
8. 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 Reporting Met and Performance Met.

- b. Reporting Met and Performance Met letter is represented in the Reporting Rate 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%.
9. 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 Reporting Met and Performance Not Met.
  - b. Reporting Met and Performance Not Met letter is represented in the Reporting Rate 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%.
10. 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 Reporting Met and Performance Not Met.
  - b. Reporting Met and Performance Not Met letter is represented in the Reporting Rate 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 Reporting Not Met.
11. Check Reporting Not Met:
- a. If Reporting Not Met equals No, Quality Data Code or equivalent not reported. 1 patient has been subtracted from the reporting numerator in sample calculation.

**SAMPLE CALCULATIONS:**

**Reporting Rate=**

$$\frac{\text{Performance Met (a}^1\text{+a}^2\text{=5 patients) + Performance Not Met (c}^1\text{+c}^2\text{=2 patients)}}{\text{Eligible Population / Denominator (d=8 patients)}} = \frac{7 \text{ patients}}{8 \text{ patients}} = 87.50\%$$

**Performance Rate\*\*=**

$$\frac{\text{Performance Met (a}^1\text{+a}^2\text{=5 patients)}}{\text{Reporting Numerator (7 patients)}} = \frac{5 \text{ patients}}{7 \text{ patients}} = 71.43\%$$