

## Diabetes: Eye Exam (NQF 0055)

<b>EMeasure Name</b>	Diabetes: Eye Exam	<b>EMeasure Id</b>	Pending
<b>Version Number</b>	1	<b>Set Id</b>	Pending
<b>Available Date</b>	No information	<b>Measurement Period</b>	January 1, 20xx through December 31, 20xx
<b>Measure Steward</b>	National Committee for Quality Assurance		
<b>Endorsed by</b>	National Quality Forum		
<b>Description</b>	The percentage of patients 18–75 years of age with diabetes (type 1 or type 2) who had a retinal or dilated eye exam or a negative retinal exam (no evidence of retinopathy) by an eye care professional .		
<b>Measure scoring</b>	Proportion		
<b>Measure type</b>	Process		
<b>Rationale</b>	<p>This measure evaluates the percentage of patients in a specific age demographic who were diagnosed with type 1 or type 2 diabetes and who had an eye (retinal) exam performed. 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 of either type may cause life-threatening, life-ending or life-altering complications, including glaucoma and blindness. Diabetic retinopathy is the most common diabetic eye disease and causes 21,000–4,000 new cases of blindness annually. The consensus among established clinical guidelines is that patients with both types of diabetes should have an initial dilated and comprehensive eye exam soon after diagnosis (ADA 2009). Guidelines also recommend consultation with an ophthalmologist for treatment options if a patient has any level of macular edema or diabetic retinopathy (proliferative and nonproliferative). This measure facilitates the prevention and long-term management of retinal-based complications for patients diagnosed with diabetes.</p>		
<b>Clinical Recommendation Statement</b>	<p>American Diabetes Association (ADA) – 2009:</p> <ul style="list-style-type: none"> <li>• Adults and children aged 10 years or older with type 1 diabetes should have an initial dilated and comprehensive eye examination by an ophthalmologist or optometrist within 5 years after the onset of diabetes. (B)</li> <li>• Patients with type 2 diabetes should have an initial dilated and comprehensive eye examination by an ophthalmologist or optometrist shortly after the diagnosis of diabetes. (B)</li> <li>• Subsequent examinations for type 1 and type 2 diabetic patients should be repeated annually by an ophthalmologist or optometrist. Less frequent exams (every 2–3 years) may be considered following one or more normal eye exams. Examinations will be required more frequently if retinopathy is progressing. (B)</li> <li>• Women with preexisting diabetes who are planning pregnancy or who have become pregnant should have a comprehensive eye examination</li> </ul>		

	<p>and be counseled on the risk of development and/or progression of diabetic retinopathy. (B)</p> <ul style="list-style-type: none"> <li>• Eye examination should occur in the first trimester with close follow-up throughout pregnancy and for 1 year postpartum. (B)</li> <li>• Promptly refer patients with any level of macular edema, severe nonproliferative diabetic retinopathy (NPDR), or any proliferative diabetic retinopathy (PDR) to an ophthalmologist who is knowledgeable and experienced in the management and treatment of diabetic retinopathy. (A)</li> <li>• Laser photocoagulation therapy is indicated to reduce the risk of vision loss in patients with high-risk PDR, clinically significant macular edema, and in some cases of severe NPDR. (A)</li> <li>• The presence of retinopathy is not a contraindication to aspirin therapy for cardioprotection, as this therapy does not increase the risk of retinal hemorrhage. (A)</li> </ul> <p>American Geriatric Society (AGS) – 2003: The older adult who has new-onset DM should have an initial screening dilated-eye examination performed by an eye-care specialist with funduscopy training. (Level I, Grade B)</p>
<b>References</b>	<p>Guidelines for Improving the Care of the Older Person with Diabetes Mellitus. California Healthcare Foundation/American Geriatrics Society Panel on Improving Care for Elders with Diabetes. American Geriatrics Society. May 2003 – Vol. 51, No. 5 Supplement, JAGS.</p> <p>Standards of Medical Care in Diabetes – 2009. <i>Diabetes Care January 2009</i> 32:S6-S12; doi: 10.2337/dc09-S006</p>
<b>Definitions</b>	

## Table of Contents

- [Population criteria](#)
- [Data criteria \(QDS Data Elements\)](#)
- [Summary calculation](#)

Please refer to the spreadsheet for this measure for detail regarding data criteria and code lists.

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## Population criteria

- **Initial Patient Population =**
  - AND: “Patient characteristic: birth date” (age)  $\geq 17$  years and  $\leq 74$  years to capture all patients who will reach the ages between 18 and 75 years during the “measurement period”;
- **Denominator =**

- AND: All patients in the initial patient population;
- AND:
  - OR: “Medication dispensed: medications indicative of diabetes” <=2 years before or simultaneously to “measurement end date”;
  - OR: “Medication order: medications indicative of diabetes” <=2 years before or simultaneously to “measurement end date”;
  - OR: “Medication active: medications indicative of diabetes” <=2 years before or simultaneously to “measurement end date”;
  - OR:
    - AND: “Diagnosis active: diabetes” <=2 years before or simultaneously to “measurement end date”;
    - AND:
      - OR: >=1 count(s) of “Encounter: encounter acute inpatient or ED”;
      - OR: >=2 count(s) of “Encounter: encounter non-acute inpt, outpatient, or ophthalmology” occurring on 2 different dates;
- **Numerator =**
  - OR: “Procedure performed: eye exam”;
  - OR:
    - AND: “Procedure performed: eye exam” during the year prior to the “measurement period”;
    - AND NOT: “Diagnosis active: diabetic retinopathy” during the year prior to the “measurement period”;
- **Exclusions =**
  - OR:
    - AND: “Diagnosis active: polycystic ovaries”;
    - AND NOT:
      - AND: “Diagnosis active: diabetes” <= 2 years before or simultaneously to “measurement end date”;
      - AND:
        - OR: “Encounter: encounter acute inpatient or ED” <=2 years before or simultaneously to “measurement end date”;
        - OR: “Encounter: encounter non-acute inpt, outpatient, or ophthalmology” <=2 years before or simultaneously to “measurement end date”;
  - OR:

- AND:
  - OR: “Diagnosis active: gestational diabetes” <=2 years before or simultaneously to “measurement end date”;
  - OR: “Diagnosis active: steroid induced diabetes” <=2 years before or simultaneously to “measurement end date”;
  
- AND:
  - OR: “Medication order: medications indicative of diabetes” <=2 years before or simultaneously to “measurement end date”;
  - OR: “Medication dispensed: medications indicative of diabetes” <=2 years before or simultaneously to “measurement end date”;
  - OR: “Medication active: medications indicative of diabetes” <=2 years before or simultaneously to “measurement end date”;
  
- AND NOT:
  - AND: “Diagnosis active: diabetes” <=2 years before or simultaneously to “measurement end date”;
  - AND:
    - OR: “Encounter: Encounter acute inpatient or ED” <=2 years before or simultaneously to “measurement end date”;
    - OR: “Encounter: encounter non-acute inpt, outpatient, or ophthalmology” <=2 years before or simultaneously to “measurement end date”;

**Data criteria (QDS Data Elements)**

- **Initial Patient Population =**
  - “Patient characteristic: birth date” using “birth date code list” before the “measurement period”;
  
- **Denominator =**
  - “Diagnosis active: diabetes” using “diabetes code list grouping” before or simultaneously to the “measurement end date”;
  - “Encounter: encounter acute inpatient or ED” using “encounter acute inpatient or ED code list grouping” during the “measurement period”;
  - “Encounter: encounter non-acute inpt, outpatient, or ophthalmology” using “encounter non-acute inpt, outpatient, or ophthalmology code list grouping” during the “measurement period”;
  - “Medication order: medications indicative of diabetes” using “medications indicative of diabetes code list grouping” before or simultaneously to the “measurement end date”;

- “Medication dispensed: medications indicative of diabetes” using “medications indicative of diabetes code list grouping” before or simultaneously to the “measurement end date”;
- “Medication active: medications indicative of diabetes” using “medications indicative of diabetes code list grouping” before or simultaneously to the “measurement end date”;
- **Numerator =**
  - “Procedure performed: eye exam” using “eye exam code list grouping” before or simultaneously to the “measurement end date”;
  - “Diagnosis active: diabetic retinopathy” using “diabetic retinopathy code list grouping” before or simultaneously to the “measurement end date”;
- **Exclusions =**
  - “Diagnosis active: polycystic ovaries” using “polycystic ovaries code list grouping” before or simultaneously to the “measurement end date”;
  - “Diagnosis active: gestational diabetes” using “gestational diabetes code list grouping” before or simultaneously to the “measurement end date”;
  - “Diagnosis active: steroid induced diabetes” using “steroid induced diabetes code list grouping” before or simultaneously to the “measurement end date”;

**Summary calculation**

Calculation is generic to all measures:

- Calculate the final denominator by adding all that meet denominator criteria.
- Subtract from the final denominator all that do not meet numerator criteria yet also meet exclusion criteria. Note some measures do not have exclusion criteria.
- The performance calculation is the number meeting numerator criteria divided by the final denominator.
- For measures with multiple patient populations, repeat this process for each patient population and report each result separately.
- For measures with multiple numerators, calculate each numerator separately within each population using the paired exclusion.

<b>Measure set</b>	CLINICAL QUALITY MEASURE SET 2011-2012
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