

eCQM Title	Primary Open-Angle Glaucoma (POAG): Optic Nerve Evaluation		
CMS ID	143	eCQM Version Number	14.0.000
CBE Number	0086e	GUID	db9d9f09-6b6a-4749-a8b2-8c1fdb018823
Measurement Period	January 1, 2026 through December 31, 2026		
Measure Steward	American Academy of Ophthalmology		
Measure Developer	American Academy of Ophthalmology		
Measure Developer	American Medical Association (AMA)		
Endorsed By	CMS Consensus Based Entity		
Description	Percentage of patients aged 18 years and older with a diagnosis of primary open-angle glaucoma (POAG) who have an optic nerve head evaluation during one or more visits during the measurement period		
Copyright	Copyright 2025 American Academy of Ophthalmology. All Rights Reserved.		
Disclaimer	The Measure is not a clinical guideline, does not establish a standard of medical care, and has not been tested for all potential applications.		
	The Measure, while copyrighted, can be reproduced and distributed, without modification, for noncommercial purposes, e.g., use by health care providers in connection with their practices. Commercial use is defined as the sale, license, or distribution of the Measure for commercial gain, or incorporation of the Measure into a product or service that is sold, licensed or distributed for commercial gain.		
	Commercial uses of the Measure require a license agreement between the user and the American Academy of Ophthalmology (Academy), Neither the Academy, PCPI, nor the American Medical Association (AMA), nor the former AMA-convened Physician Consortium for Performance Improvement(R) (AMA-PCPI), nor their members shall be responsible for any use of the Measure.		
	The PCPI's and AMA's significant past efforts and contributions to the development and updating of the Measures are acknowledged. The National Committee for Quality Assurance's significant past efforts and contributions to the development and updating of the Measure is acknowledged.		
	THE MEASURE AND SPECIFICATIONS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND.		
Rationale	<p>Glaucoma is a group of diseases that damage the eye's optic nerve and can result in vision loss and blindness. In 2011, 2.71 million persons in the U.S. had primary open-angle glaucoma (POAG) and in 2050, an estimated 7.32 million persons will have POAG (Vajaranant, Wu, Torres, & Varma, 2012). Furthermore, a study by Rein, Zhang, & Wirth (2006) estimated that the total financial burden of major visual disorders among U.S. residents aged 40 years or older was \$35.4 billion in 2004; \$16.2 billion in direct medical costs, \$11.1 billion in other direct costs, and \$8 billion in productivity losses. Of the direct medical costs, approximately \$2.9 billion was attributable to glaucoma (Rein, Zhang, & Wirth, 2006). It is imperative that evidence-based care be delivered to all glaucoma patients.</p> <p>According to recent guidelines, optic nerve changes are one of the characteristics which reflect progression of glaucoma (the other characteristic is visual field). Examination of the optic nerve head (ONH) and retinal nerve fiber layer (RNFL) provides valuable structural information about optic nerve damage from glaucoma. Visible structural alterations of the ONH or RNFL may precede the onset of visual field defects. Careful study of the optic disc neural rim for small hemorrhages is important because these hemorrhages sometimes signal focal disc damage and visual field loss, and they may signify ongoing optic nerve damage in patients with glaucoma (Gedde et al., 2021). Despite evidence emphasizing the value of an optic nerve evaluation, there is a gap in documentation patterns of the optic nerve for both initial and follow-up care.</p> <p>This measure is intended to promote examination and documentation of the structure and function of the optic nerve, and to monitor and detect disease progression among patients diagnosed with POAG.</p>		
	<p>Ophthalmic Evaluation</p> <p>The ophthalmic evaluation specifically focuses on the following elements in the comprehensive adult medical eye evaluation:</p> <p>Visual acuity measurement Pupil examination Anterior segment examination IOP measurement Gonioscopy Optic nerve head (ONH) and retinal nerve fiber layer (RNFL) examination Fundus examination (Gedde et al., 2021)</p> <p>The optic nerve should be carefully examined for the signs of glaucoma damage, and its appearance should be serially documented (+, moderate quality, strong recommendation) (Gedde et al., 2021).</p>		
Improvement Notation	Higher score indicates better quality		
Reference	Reference Type: CITATION		
	Reference Text: "Rein, D. B., Zhang, P., & Wirth, K. (2006). The economic burden of major adult visual disorders in the United States. Archives of Ophthalmology, 124(12), 1754-1760. doi:10.1001/archophth.124.12.1754"		
Reference	Reference Type: CITATION		
	Reference Text: "Vajaranant, T. S., Wu, S., Torres, M., & Varma, R. (2012). The changing face of primary open-angle glaucoma in the United States: Demographic and geographic changes from 2011 to 2050. American Journal of Ophthalmology, 154(2). doi:10.1016/j.ajo.2012.02.024"		
Reference	Reference Type: CITATION		
	Reference Text: "Gedde, S. J., Vinod, K., Wright, M. M., Muir, K. W., Lind, J. T., Chen, P. P., Li, T., Mansberger, S. L., & American Academy of Ophthalmology Preferred Practice Pattern Glaucoma Panel (2021). Primary Open-Angle Glaucoma Preferred Practice Pattern(R). Ophthalmology, 128(1), P71–P150. https://doi.org/10.1016/j.ophtha.2020.10.022"		
Definition	None		
Guidance	Optic nerve head evaluation includes examination of the cup to disc ratio and identification of optic disc or retinal nerve abnormalities. Both of these components of the optic nerve head evaluation are examined using ophthalmoscopy.		
	The measure, as written, does not specifically require documentation of laterality. Coding limitations in particular clinical terminologies do not currently allow for that level of specificity (ICD-10-CM includes laterality, but SNOMED-CT does not uniformly include this distinction). Therefore, at this time, it is not a requirement of this measure to indicate laterality of the diagnoses, findings or procedures. Available coding to capture the data elements specified in this measure has been provided. It is assumed that the eligible clinician will record laterality in the patient medical record, as quality care and clinical documentation should include laterality.		
	This eCQM is a patient-based measure.		
Transmission Format	Telehealth encounters are not eligible for this measure because the measure requires a clinical action that cannot be conducted via telehealth.		
	This version of the eCQM uses QDM version 5.6. Please refer to the eCQI resource center (https://ecqi.healthit.gov/qdm) for more information on the QDM.		
Initial Population	All patients aged 18 years and older with a diagnosis of primary open-angle glaucoma		
Denominator	Equals Initial Population		
Denominator Exclusions	None		
Numerator	Patients who have an optic nerve head evaluation during one or more visits during the measurement period		
Numerator Exclusions	None		
Denominator Exceptions	Documentation of medical reason(s) for not performing an optic nerve head evaluation		
Supplemental Data Elements	For every patient evaluated by this measure also identify payer, race, ethnicity and sex		

Table of Contents

- [Population Criteria](#)
- [Definitions](#)
- [Functions](#)
- [Terminology](#)
- [Data Criteria \(QDM Data Elements\)](#)
- [Supplemental Data Elements](#)
- [Risk Adjustment Variables](#)

Population Criteria

Initial Population

AgeInYearsAt(date from start of "Measurement Period") >= 18
and exists "Primary Open Angle Glaucoma Encounter"

Denominator

"Initial Population"

Denominator Exclusions

None

Numerator

exists "Cup to Disc Ratio Performed with Result"
and exists "Optic Disc Exam Performed with Result"

Numerator Exclusions

None

Denominator Exceptions

exists "Medical Reason for Not Performing Cup to Disc Ratio"
or exists "Medical Reason for Not Performing Optic Disc Exam"

Stratification

None

Definitions

Cup to Disc Ratio Performed with Result

["Diagnostic Study, Performed": "Cup to Disc Ratio"] CupToDiscExamPerformed
with "Primary Open Angle Glaucoma Encounter" EncounterWithPOAG
such that Global."NormalizeInterval" (CupToDiscExamPerformed.relevantDatetime, CupToDiscExamPerformed.relevantPeriod) during day of EncounterWithPOAG.relevantPeriod
where CupToDiscExamPerformed.result is not null

Denominator

"Initial Population"

Denominator Exceptions

exists "Medical Reason for Not Performing Cup to Disc Ratio"
or exists "Medical Reason for Not Performing Optic Disc Exam"

Initial Population

AgeInYearsAt(date from start of "Measurement Period") >= 18
and exists "Primary Open Angle Glaucoma Encounter"

Medical Reason for Not Performing Cup to Disc Ratio

["Diagnostic Study, Not Performed": "Cup to Disc Ratio"] CupToDiscExamNotPerformed
with "Primary Open Angle Glaucoma Encounter" EncounterWithPOAG
such that CupToDiscExamNotPerformed.authorDatetime during day of EncounterWithPOAG.relevantPeriod
where CupToDiscExamNotPerformed.negativeRationale in "Medical Reason"

Medical Reason for Not Performing Optic Disc Exam

["Diagnostic Study, Not Performed": "Optic Disc Exam for Structural Abnormalities"] OpticDiscExamNotPerformed
with "Primary Open Angle Glaucoma Encounter" EncounterWithPOAG
such that OpticDiscExamNotPerformed.authorDatetime during day of EncounterWithPOAG.relevantPeriod
where OpticDiscExamNotPerformed.negativeRationale in "Medical Reason"

Numerator

exists "Cup to Disc Ratio Performed with Result"
and exists "Optic Disc Exam Performed with Result"

Optic Disc Exam Performed with Result

["Diagnostic Study, Performed": "Optic Disc Exam for Structural Abnormalities"] OpticDiscExamPerformed
with "Primary Open Angle Glaucoma Encounter" EncounterWithPOAG
such that Global."NormalizeInterval" (OpticDiscExamPerformed.relevantDatetime, OpticDiscExamPerformed.relevantPeriod) during day of EncounterWithPOAG.relevantPeriod
where OpticDiscExamPerformed.result is not null

Primary Open Angle Glaucoma Encounter

"Qualifying Encounter During Day of Measurement Period" ValidQualifyingEncounter
with ["Diagnosis": "Primary Open Angle Glaucoma"] POAGDiagnosis
such that POAGDiagnosis.prevalencePeriod overlaps day of ValidQualifyingEncounter.relevantPeriod

Qualifying Encounter During Day of Measurement Period

(["Encounter, Performed": "Office Visit"]
union ["Encounter, Performed": "Ophthalmological Services"]
union ["Encounter, Performed": "Outpatient Consultation"]
union ["Encounter, Performed": "Nursing Facility Visit"]) QualifyingEncounter
where QualifyingEncounter.relevantPeriod during day of "Measurement Period"
and QualifyingEncounter.class != "virtual"

SDE Ethnicity

["Patient Characteristic Ethnicity": "Ethnicity"]

SDE Payer

["Patient Characteristic Payer": "Payer Type"]

SDE Race

["Patient Characteristic Race": "Race"]

SDE Sex

["Patient Characteristic Sex": "Federal Administrative Sex"]

Functions

Global.NormalizeInterval(pointInTime DateTime, period Interval<DateTime>)

if pointInTime is not null then Interval[pointInTime, pointInTime]
else if period is not null then period
else null as Interval<DateTime>

Terminology

- code "virtual" ("ActCode Code (VR)")
- valueSet "Care Services in Long Term Residential Facility" (2.16.840.1.113883.3.464.1003.101.12.1014)
- valueSet "Cup to Disc Ratio" (2.16.840.1.113883.3.526.3.1333)
- valueSet "Ethnicity" (2.16.840.1.114222.4.11.837)
- valueSet "Federal Administrative Sex" (2.16.840.1.113762.1.4.1021.121)
- valueSet "Medical Reason" (2.16.840.1.113883.3.526.3.1007)
- valueSet "Nursing Facility Visit" (2.16.840.1.113883.3.464.1003.101.12.1012)
- valueSet "Office Visit" (2.16.840.1.113883.3.464.1003.101.12.1001)
- valueSet "Ophthalmological Services" (2.16.840.1.113883.3.526.3.1285)
- valueSet "Optic Disc Exam for Structural Abnormalities" (2.16.840.1.113883.3.526.3.1334)
- valueSet "Outpatient Consultation" (2.16.840.1.113883.3.464.1003.101.12.1006)
- valueSet "Payer Type" (2.16.840.1.114222.4.11.3591)
- valueSet "Primary Open Angle Glaucoma" (2.16.840.1.113883.3.526.3.326)
- valueSet "Race" (2.16.840.1.114222.4.11.836)

Data Criteria (QDM Data Elements)

- "Diagnosis: Primary Open Angle Glaucoma" using "Primary Open Angle Glaucoma (2.16.840.1.113883.3.526.3.326)"
- "Diagnostic Study, Not Performed: Cup to Disc Ratio" using "Cup to Disc Ratio (2.16.840.1.113883.3.526.3.1333)"
- "Diagnostic Study, Not Performed: Optic Disc Exam for Structural Abnormalities" using "Optic Disc Exam for Structural Abnormalities (2.16.840.1.113883.3.526.3.1334)"
- "Diagnostic Study, Performed: Cup to Disc Ratio" using "Cup to Disc Ratio (2.16.840.1.113883.3.526.3.1333)"
- "Diagnostic Study, Performed: Optic Disc Exam for Structural Abnormalities" using "Optic Disc Exam for Structural Abnormalities (2.16.840.1.113883.3.526.3.1334)"
- "Encounter, Performed: Care Services in Long Term Residential Facility" using "Care Services in Long Term Residential Facility (2.16.840.1.113883.3.464.1003.101.12.1014)"
- "Encounter, Performed: Nursing Facility Visit" using "Nursing Facility Visit (2.16.840.1.113883.3.464.1003.101.12.1012)"
- "Encounter, Performed: Office Visit" using "Office Visit (2.16.840.1.113883.3.464.1003.101.12.1001)"
- "Encounter, Performed: Ophthalmological Services" using "Ophthalmological Services (2.16.840.1.113883.3.526.3.1285)"
- "Encounter, Performed: Outpatient Consultation" using "Outpatient Consultation (2.16.840.1.113883.3.464.1003.101.12.1006)"
- "Patient Characteristic Ethnicity: Ethnicity" using "Ethnicity (2.16.840.1.114222.4.11.837)"
- "Patient Characteristic Payer: Payer Type" using "Payer Type (2.16.840.1.114222.4.11.3591)"
- "Patient Characteristic Race: Race" using "Race (2.16.840.1.114222.4.11.836)"
- "Patient Characteristic Sex: Federal Administrative Sex" using "Federal Administrative Sex (2.16.840.1.113762.1.4.1021.121)"

Supplemental Data Elements

SDE Ethnicity

["Patient Characteristic Ethnicity": "Ethnicity"]

SDE Payer

["Patient Characteristic Payer": "Payer Type"]

SDE Race

["Patient Characteristic Race": "Race"]

SDE Sex

["Patient Characteristic Sex": "Federal Administrative Sex"]

Risk Adjustment Variables

None

Measure Set	None
-------------	------