eCQM Title	Primary Open-Angle Glaucoma (POAG): Optic Nerve Evaluation		
eCQM Identifier (Measure Authoring Tool)	143	eCQM Version Number	13.0.000
CBE Number	0086e	GUID	db9d9f09-6b6a-4749-a8b2-8c1fdb018823
Measurement Period	January 1, 20XX through December 31, 20XX		
Measure Steward	American Academy of Ophthalmology		
Measure Developer	American Academy of Ophthalmology		
Measure Developer	American Medical Association (AMA)		
Measure Developer	PCPI(R) Foundation (PCPI[R])		
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 within 12 months		
Copyright	Copyright 2024 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. Limited proprietary coding is contained in the Measure specifications for convenience. A license agreement must be entered prior to a third party's use of Current Procedural Terminology (CPT[R]) or other proprietary code set contained in the Measures. Any other use of CPT or other coding by the third party is strictly prohibited. The Academy, its members, the AMA, and former members of the PCPI disclaim all liability for use or accuracy of any CPT or other coding contained in the specifications. CPT(R) contained in the Measure specifications is copyright 2004-2023 American Medical Association. LOINC(R) is copyright 2004-2023 Regenstrief Institute, Inc. This material contains SNOMED Clinical Terms(R) (SNOMED CT[R]) copyright 2004-2023 International Health Terminology Standards Development Organisation. ICD-10 is copyright 2023 World Health Organization. All Rights Reserved. Due to technical limitations, registered trademarks are indicated by (R) or [R].		
Measure Scoring	Proportion		
Measure Type	Process		
Stratification	None		
Risk Adjustment	None		
Rate Aggregation	None		
Rationale	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. 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. 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.		
Clinical Recommendation Statement	Ophthalmic Evaluation The ophthalmic evaluation specifically focuses on the following elements in the comprehensive adult medical eye evaluation: 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) The optic nerve should be carefully examined for the signs of glaucoma damage, and its appearance should be serially documented (I+, moderate quality, strong recommendation) (Gedde et al., 2021).		
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/archopht.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.

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. |
Transmission Format	TBD
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 within 12 months
Numerator Exclusions	Not Applicable
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

◢ 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 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 EncounterWithPOAG.relevantPeriod
  where CupToDiscExamNotPerformed.negationRationale 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 EncounterWithPOAG.relevantPeriod
  where OpticDiscExamNotPerformed.negationRationale 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 EncounterWithPOAG.relevantPeriod
  where OpticDiscExamPerformed.result is not null

◢ Primary Open Angle Glaucoma Encounter

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

◢ Qualifying Encounter During Measurement Period

(["Encounter, Performed": "Office Visit"]
  union ["Encounter, Performed": "Ophthalmological Services"]
  union ["Encounter, Performed": "Outpatient Consultation"]
  union ["Encounter, Performed": "Nursing Facility Visit"]
  union ["Encounter, Performed": "Care Services in Long Term Residential Facility"]) QualifyingEncounter
  where QualifyingEncounter.relevantPeriod during "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": "ONC 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 "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 "ONC Administrative Sex" (2.16.840.1.113762.1.4.1)
- 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" (2.16.840.1.113883.3.464.1003.101.12.1008)
- 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 (2.16.840.1.113883.3.464.1003.101.12.1008)"
- "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: ONC Administrative Sex" using "ONC Administrative Sex (2.16.840.1.113762.1.4.1)"

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": "ONC Administrative Sex"]

Risk Adjustment Variables

None

Measure Set	None