

## Clinical Policy: Trabeculectomy Ab Externo

Reference Number: CP.VP.61

Last Review Date: 08/2025

[Coding Implications](#)

[Revision Log](#)

See [Important Reminder](#) at the end of this policy for important regulatory and legal information.

### Description

Trabeculectomy provides an alternative path for the escape of aqueous humor into the subconjunctival space, and it often reduces intraocular pressure (IOP) and the need for medicinal treatment in glaucoma. This policy describes the medical necessity requirements for trabeculectomy ab externo.

See *clinical practice guideline CP.VP.30 Glaucoma*.

### Policy/Criteria

- I. It is the policy of health plans affiliated with Centene Corporation<sup>®</sup> (Centene) and Envolve Vision, Inc.<sup>®</sup> (Envolve) that trabeculectomy ab externo is **medically necessary** for the following indications:
  - A. Glaucoma with poor control of IOP despite attempted maximum medical therapy.
- II. It is the policy of health plans affiliated with Centene and Envolve that trabeculectomy ab externo is not **medically necessary** for the following indications:
  - A. As a primary therapy for glaucoma.
  - B. When more conservative laser options have not been attempted, including argon laser trabeculoplasty (ALT) or selective laser trabeculoplasty (SLT)
  - C. As a means to reduce well-tolerated topical glaucoma medications at the time of concurrent cataract surgery.

### Background

Trabeculectomy is a guarded partial-thickness filtering procedure performed by removal of a block of peripheral corneal tissue beneath a scleral flap. The scleral flap provides resistance and limits the outflow of aqueous, thereby reducing the complications associated with early hypotony such as flat anterior chamber, cataract, serous and hemorrhagic choroidal effusion, macular edema, and optic nerve edema.

Because of the lower incidence of postoperative complications, trabeculectomy is the most commonly performed filtering operation. The use of antifibrotic agents such as mitomycin C and 5-fluorouracil, along with releasable sutures or laser suture lysis, enhances the longevity of guarded procedures, offers lower IOPs, and avoids some of the complications associated with full-thickness procedures.

Successful trabeculectomy involves reduction of IOP and avoidance or management of complications. Unlike cataract surgery, the success of trabeculectomy often depends on appropriate and timely postoperative intervention to influence the functioning of the filter. Complete healing of the epithelial and conjunctival wound with incomplete healing of the scleral wound is the goal of this procedure.

Though constantly produced and drained, the overall pressure of aqueous is relatively constant in a healthy eye's anterior chamber. Overly high or low intraocular pressure can cause permanent damage.

**Coding Implications**

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CPT® Codes	Description
66170	Fistulization of sclera for glaucoma; trabeculectomy ab externo in absence of previous surgery
66172	Fistulization of sclera for glaucoma; trabeculectomy ab externo with scarring from previous ocular surgery or trauma (includes injection of antifibrotic agents)

**ICD-10-CM Diagnosis Codes that Support Coverage Criteria**

+ Indicates a code requiring an additional character

ICD-10-CM Code	Description
H40.1111	Primary open-angle glaucoma, right eye, mild stage
H40.1112	Primary open-angle glaucoma, right eye, moderate stage
H40.1113	Primary open-angle glaucoma, right eye, severe stage
H40.1121	Primary open-angle glaucoma, left eye, mild stage
H40.1122	Primary open-angle glaucoma, left eye, moderate stage
H40.1123	Primary open-angle glaucoma, left eye, severe stage
H40.1131	Primary open-angle glaucoma, bilateral, mild stage
H40.1132	Primary open-angle glaucoma, bilateral, moderate stage
H40.1133	Primary open-angle glaucoma, bilateral, severe stage
H40.1211	Low-tension glaucoma, right eye, mild stage
H40.1212	Low-tension glaucoma, right eye, moderate stage
H40.1213	Low-tension glaucoma, right eye, severe stage
H40.1221	Low-tension glaucoma, left eye, mild stage
H40.1222	Low-tension glaucoma, left eye, moderate stage
H40.1223	Low-tension glaucoma, left eye, severe stage
H40.1231	Low-tension glaucoma, bilateral, mild stage
H40.1232	Low-tension glaucoma, bilateral, moderate stage
H40.1233	Low-tension glaucoma, bilateral, severe stage
H40.1311	Pigmentary glaucoma, right eye, mild stage
H40.1312	Pigmentary glaucoma, right eye, moderate stage
H40.1313	Pigmentary glaucoma, right eye, severe stage
H40.1321	Pigmentary glaucoma, left eye, mild stage
H40.1322	Pigmentary glaucoma, left eye, moderate stage
H40.1323	Pigmentary glaucoma, left eye, severe stage
H40.1331	Pigmentary glaucoma, bilateral, mild stage

ICD-10-CM Code	Description
H40.1332	Pigmentary glaucoma, bilateral, moderate stage
H40.1333	Pigmentary glaucoma, bilateral, severe stage
H40.1411	Capsular glaucoma with pseudoexfoliation of lens, right eye, mild stage
H40.1412	Capsular glaucoma with pseudoexfoliation of lens, right eye, moderate stage
H40.1413	Capsular glaucoma with pseudoexfoliation of lens, right eye, severe stage
H40.1421	Capsular glaucoma with pseudoexfoliation of lens, left eye, mild stage
H40.1422	Capsular glaucoma with pseudoexfoliation of lens, left eye, moderate stage
H40.1423	Capsular glaucoma with pseudoexfoliation of lens, left eye, severe stage
H40.1431	Capsular glaucoma with pseudoexfoliation of lens, bilateral, mild stage
H40.1432	Capsular glaucoma with pseudoexfoliation of lens, bilateral, moderate stage
H40.1433	Capsular glaucoma with pseudoexfoliation of lens, bilateral, severe stage
H40.151	Residual stage of open-angle glaucoma, right eye
H40.152	Residual stage of open-angle glaucoma, left eye
H40.153	Residual stage of open-angle glaucoma, bilateral
H40.211	Acute angle-closure glaucoma, right eye
H40.212	Acute angle-closure glaucoma, left eye
H40.213	Acute angle-closure glaucoma, bilateral
H40.2211	Chronic angle-closure glaucoma, right eye, mild stage
H40.2212	Chronic angle-closure glaucoma, right eye, moderate stage
H40.2213	Chronic angle-closure glaucoma, right eye, severe stage
H40.2221	Chronic angle-closure glaucoma, left eye, mild stage
H40.2222	Chronic angle-closure glaucoma, left eye, moderate stage
H40.2223	Chronic angle-closure glaucoma, left eye, severe stage
H40.2231	Chronic angle-closure glaucoma, bilateral, mild stage
H40.2232	Chronic angle-closure glaucoma, bilateral, moderate stage
H40.2233	Chronic angle-closure glaucoma, bilateral, severe stage
H40.231	Intermittent angle-closure glaucoma, right eye
H40.232	Intermittent angle-closure glaucoma, left eye
H40.233	Intermittent angle-closure glaucoma, bilateral
H40.241	Residual stage of angle-closure glaucoma, right eye
H40.242	Residual stage of angle-closure glaucoma, left eye
H40.243	Residual stage of angle-closure glaucoma, bilateral
H40.31X1	Glaucoma secondary to eye trauma, right eye, mild stage
H40.31X2	Glaucoma secondary to eye trauma, right eye, moderate stage
H40.31X3	Glaucoma secondary to eye trauma, right eye, severe stage
H40.32X1	Glaucoma secondary to eye trauma, left eye, mild stage
H40.32X2	Glaucoma secondary to eye trauma, left eye, moderate stage
H40.32X3	Glaucoma secondary to eye trauma, left eye, severe stage
H40.33X1	Glaucoma secondary to eye trauma, bilateral, mild stage
H40.33X2	Glaucoma secondary to eye trauma, bilateral, moderate stage

ICD-10-CM Code	Description
H40.33X3	Glaucoma secondary to eye trauma, bilateral, severe stage
H40.41X1	Glaucoma secondary to eye inflammation, right eye, mild stage
H40.41X2	Glaucoma secondary to eye inflammation, right eye moderate stage
H40.41X3	Glaucoma secondary to eye inflammation, right eye, severe stage
H40.42X1	Glaucoma secondary to eye inflammation left eye mild stage
H40.42X2	Glaucoma secondary to eye inflammation, left eye, moderate stage
H40.42X3	Glaucoma secondary to eye inflammation left eye severe stage
H40.43X1	Glaucoma secondary to eye inflammation, bilateral, mild stage
H40.43X2	Glaucoma secondary to eye inflammation bilateral moderate stage
H40.43X3	Glaucoma secondary to eye inflammation, bilateral, severe stage
H40.51X1	Glaucoma secondary to other eye disorders, right eye, mild stage
H40.51X2	Glaucoma secondary to other eye disorders, right eye, moderate stage
H40.51X3	Glaucoma secondary to other eye disorders, right eye, severe stage
H40.52X1	Glaucoma secondary to other eye disorders, left eye, mild stage
H40.52X2	Glaucoma secondary to other eye disorders, left eye, moderate stage
H40.52X3	Glaucoma secondary to other eye disorders, left eye, severe stage
H40.53X1	Glaucoma secondary to other eye disorders, bilateral, mild stage
H40.53X2	Glaucoma secondary to other eye disorders, bilateral, moderate stage
H40.53X3	Glaucoma secondary to other eye disorders, bilateral, severe stage
H40.61X1	Glaucoma secondary to drugs, right eye, mild stage
H40.61X2	Glaucoma secondary to drugs, right eye, moderate stage
H40.61X3	Glaucoma secondary to drugs, right eye, severe stage
H40.62X1	Glaucoma secondary to drugs, left eye, mild stage
H40.62X2	Glaucoma secondary to drugs, left eye, moderate stage
H40.62X3	Glaucoma secondary to drugs, left eye, severe stage
H40.63X1	Glaucoma secondary to drugs, bilateral, mild stage
H40.63X2	Glaucoma secondary to drugs, bilateral, moderate stage
H40.63X3	Glaucoma secondary to drugs, bilateral, severe stage
H40.811	Glaucoma with increased episcleral venous pressure, right eye
H40.812	Glaucoma with increased episcleral venous pressure, left eye
H40.813	Glaucoma with increased episcleral venous pressure, bilateral
H40.821	Hypersecretion glaucoma, right eye
H40.822	Hypersecretion glaucoma, left eye
H40.823	Hypersecretion glaucoma, bilateral
H40.831	Aqueous misdirection, right eye
H40.832	Aqueous misdirection, left eye
H40.833	Aqueous misdirection, bilateral
H40.841	Neovascular secondary angle closure glaucoma, right eye
H40.842	Neovascular secondary angle closure glaucoma, left eye
H40.843	Neovascular secondary angle closure glaucoma, bilateral

ICD-10-CM Code	Description
Q15.0	Congenital glaucoma

Reviews, Revisions, and Approvals	Date	Approval Date
Annual Review	12/2019	12/2019
Converted to new template	07/2020	10/2020
Annual Review	12/2020	12/2020
Annual Review; Updated References	12/2021	01/2022
Annual Review	11/2022	12/2022
Annual Review	11/2023	12/2023
Annual Review	11/2024	12/2024
Updated coding to include newly published ICD-10 codes for neovascular secondary angle closure glaucoma.	08/2025	10/2025

**References**

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2. American Academy of Ophthalmology, Preferred Practice Pattern® Guidelines, Primary Angle-Closure Disease, San Francisco, CA, American Academy of Ophthalmology, 2020, <https://www.aao.org/preferred-practice-pattern/primary-angle-closure-disease-ppp>
3. A History of the Surgical Management of Glaucoma, Razequinejad, M.R., Spaeth, G.L., PubMed, U.S. National Library of Medicine, National Institutes of Health, Optom Vision Science, 2011 Jan;88(1):E39-47
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5. Yvonne Ou, MD. Glaucoma Surgery Series: Trabeculectomy. University of California, San Francisco, UCSF Medical Center. Updated on: April 23, 2018. <https://www.brightfocus.org/glaucoma/article/glaucoma-surgery-series-trabeculectomy>

**Important Reminder**

This clinical policy has been developed by appropriately experienced and licensed health care professionals based on a review and consideration of currently available generally accepted standards of medical practice; peer-reviewed medical literature; government agency/program approval status; evidence-based guidelines and positions of leading national health professional organizations; views of physicians practicing in relevant clinical areas affected by this clinical policy; and other available clinical information. The Health Plan makes no representations and accepts no liability with respect to the content of any external information used or relied upon in developing this clinical policy. This clinical policy is consistent with standards of medical practice current at the time that this clinical policy was approved. “Health Plan” means a health plan that has adopted this clinical policy and that is operated or administered, in whole or in part, by Centene Management Company, LLC, or any of such health plan’s affiliates, as applicable.

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This clinical policy is effective as of the date determined by the Health Plan. The date of posting may not be the effective date of this clinical policy. This clinical policy may be subject to applicable legal and regulatory requirements relating to provider notification. If there is a discrepancy between the effective date of this clinical policy and any applicable legal or regulatory requirement, the requirements of law and regulation shall govern. The Health Plan retains the right to change, amend or withdraw this clinical policy, and additional clinical policies may be developed and adopted as needed, at any time.

This clinical policy does not constitute medical advice, medical treatment or medical care. It is not intended to dictate to providers how to practice medicine. Providers are expected to exercise professional medical judgment in providing the most appropriate care, and are solely responsible for the medical advice and treatment of members. This clinical policy is not intended to recommend treatment for members. Members should consult with their treating physician in connection with diagnosis and treatment decisions.

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**Note: For Medicare members**, to ensure consistency with the Medicare National Coverage Determinations (NCD) and Local Coverage Determinations (LCD), all applicable NCDs, LCDs, and Medicare Coverage Articles should be reviewed prior to applying the criteria set forth in this clinical policy. Refer to the CMS website at <https://www.cms.gov> for additional information.

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