

Current Effective Date: 12/19/24

Status: Approved

Reviewed by Medical Policy Subcommittee: 8/4/22, 12/19/24

Reviewed Dates: 5/27/22, 8/4/22, 12/3/24

INSTRUCTIONS FOR USE DISCLAIMER:

SummaCare posts policies relating to coverage and medical necessity issues to assist members and providers in administering member benefits. These policies do not constitute a contract or agreement between SummaCare and any member or provider. The policies are guidelines only and are intended to assist members and providers with coverage issues. SummaCare is not a health care provider, does not provide or assist with health care services or treatment, and does not make guarantees as to the effectiveness of treatment administered by providers. The treatment of members is the sole responsibility of the treating provider, who is not an employee of SummaCare, but is an independent contractor in private practice. The policies posted to this site may be updated and are subject to change without prior notice to members or providers.

Medical policies in conjunction with other nationally recognized standards of care are used to make medical coverage decisions.

Glaucoma Surgeries Policy

Indication/Usage:

Glaucoma is a disease of the optic nerve characterized by elevated intraocular pressure (IOP) and progressive, irreversible loss of vision. There are several types of glaucoma, all associated with optic nerve damage, leading to visual impairment. Primary open-angle glaucoma (OAG) is the most common type. OAG is associated with partial blockage of the flow of aqueous humor. Patients with OAG develop thickening of the trabecular meshwork, which may result in partial blockage of Schlemm's canal. First-line treatment of OAG employs medications that lower IOP with the aim of preventing loss of vision. However, many patients require more than 1 medication to adequately lower IOP. Adherence may be suboptimal because medications for glaucoma are sometimes time-consuming or difficult to administer, produce side effects, and are costly. Surgical approaches are used if medical treatment does not lower IOP adequately.

Surgical procedures are designed to either increase the exit of aqueous humor from the eye or decrease its production. Many surgical procedures are associated with pain, infection, hypotony (extremely low IOP), hemorrhage, corneal edema, and visual disturbances. For these reasons, minimally invasive approaches are preferred in Combination with Cataract Surgery for the Treatment of Open-Angle Glaucoma, 2016)

Medical Indications for Authorization

Medical Indications for Authorization Commercial Members

SummaCare considers the following treatments medically necessary for the treatment of glaucoma.

1. Aqueous Drainage/Shunt Implants

- Considered medically necessary for the treatment of members with refractory primary open-angle glaucoma when first-line and second-line drugs or surgical treatments have failed to control intra-ocular pressure (IOP) using only FDA approved products.
- Current FDA approved implants include:
 - a. Ahmed glaucoma implant
 - b. Baerveldt seton
 - c. Ex-PRESS mini glaucoma shunt
 - d. Glaucoma pressure regulator
 - e. Krupin-Denver valve implant
 - f. Molteno implant
 - g. Schocket shunt

2. iStent Trabecular Micro-Bypass

- Considered medically necessary for the treatment of adults with mild or moderate open angle glaucoma and a cataract when the individual is currently being treated with an ocular hypotensive medication and the procedure is being performed in conjunction with cataract surgery.

1 or 2 stents per eye covered when above criteria is met, more than 2 stents per eye is considered experimental and investigational.

3. Hydrus Microstent

- Considered medically necessary for the treatment of adults with mild or moderate open angle glaucoma and a cataract when the individual is currently being treated with an

ocular hypotensive medication and the procedure is being performed in conjunction with cataract surgery.

1 stent per eye covered when above criteria is met, more than 1stents per eye is considered experimental and investigational.

4. XEN Glaucoma Treatment System

- Considered medically necessary for the management of refractory glaucoma, including ANY of the following:
 - a. primary open angle glaucoma
 - b. failure of previous surgical treatment
 - c. pseudoexfoliative or pigmentary glaucoma with open angles that is unresponsive to maximum tolerated medical therapy

1 stent per eye covered when above criteria is met, more than 1stents per eye is considered experimental and investigational.

5. Canaloplasty

- Considered medically necessary for the treatment of primary open-angle glaucoma (POAG), including normal-tension glaucoma, and for pseudoexfoliation glaucoma.

Medicare Members CGS LCD ID 37578 Micro-Invasive Glaucoma Surgery (MIGS) Coverage Guidance Coverage Indications, Limitations, and/or Medical Necessity

Indications of Coverage

The following are considered reasonable and necessary and covered:

1. One trabecular aqueous stent device per eye which is approved for the treatment of adults with mild or moderate open-angle glaucoma (OAG) and a cataract when the individual is currently being treated with an ocular hypotensive medication and the procedure is being performed in conjunction with cataract surgery.
2. One supraconjunctival space stent or trabecular aqueous stent device is approved for use as a standalone procedure device per eye for the management of refractory glaucoma, defined as prior failure of a filtering/cilioablative procedure **OR** uncontrolled intraocular pressure (IOP) defined a progressive damage or mean diurnal medicated IOP ≥ 20 mmHg on maximally tolerated medical therapy (i.e., ≥ 4 classes of topical IOP-lowering medications, or fewer in the case of tolerability or efficacy issues).

Limitations of Coverage

1. Minimally invasive glaucoma surgery (MIGS) is not considered a first line treatment for mild-moderate glaucoma.
2. A combination of surgical MIGs procedure and aqueous shunts cannot be performed at the same time of service in the same patient.
3. Phacoemulsification can be performed with a single MIGS procedure, but multiple procedures (e.g., stent and MIGS surgical procedure) cannot be performed in the same eye at the same time.

Limitations

Any additional treatments not listed above are unproven and not medically necessary for treating any type of glaucoma due to insufficient evidence of efficacy and/or safety.

1. Minimally invasive glaucoma surgery (MIGS) is not considered a first line treatment for mild/moderate glaucoma.
2. A combination of a surgical MIGS procedure and an aqueous shunt cannot be performed at the same time of service in the same eye.
3. Phacoemulsification/intraocular lens placement performed with a combination of a MIGS procedure, (e.g., cataract + stent + canaloplasty or goniotomy) at the same time of service in the same eye is non-covered.

Coverage Decisions

Coverage decisions made per CMS Guidelines, Hayes Research and industry standards research

Plans Covered By This Policy

Commercial and Medicare

Self-funded Commercial groups refer to plan document for coverage

Sources Reviewed

Ahmed IIK, De Francesco T, Rhee D, et al; HORIZON Investigators. Long-term outcomes from the HORIZON randomized trial for a Schlemm's canal Microstent in combination cataract and glaucoma surgery. *Ophthalmology*. 2022; 129(7):742-751.

Allergan, Inc. Allergan receives FDA clearance for the XEN Gel Stent, a new surgical treatment for refractory glaucoma. Press Release. Dublin, Ireland: Allergan; November 22, 2016.

American Academy of Ophthalmology Preferred Practice Pattern Glaucoma Panel: Prum BE, Rosenberg LF, Gedde SJ, et al; Primary Open-Angle Glaucoma PPP - 2015. AAO: San Francisco, CA. November 2015.

Balas M, Mathew DJ. Minimally invasive glaucoma surgery: A review of the literature. *Vision* (Basel). 2023; 7(3):54.

Chen Y-S, Hung H-T, Guo S-P, Chang H-C. Effects of anti-inflammatory treatment on efficacy of selective laser trabeculoplasty: A systematic review and meta-analysis. *Expert Rev Clin Pharmacol*. 2021;14(12):1527-1534.

Dupont G, Collignon N. New surgical approach in primary open-angle glaucoma: XEN gel stent a minimally invasive technique. *Rev Med Liege*. 2016;71(2):90-93.

Gedde SJ, Vinod K, Wright MM, et al. Primary open-angle glaucoma. Preferred Practice Pattern. San Francisco, CA: American Academy of Ophthalmology; 2020.

Healey PR, Clement CI, Kerr NM, et al. Standalone iStent trabecular micro-bypass glaucoma surgery: A systematic review and meta-analysis. *J Glaucoma*. 2021; 30(7):606-620.

Hooshmand J, Rothschild P, Allen P, Kerr NM, Vote BJ, Toh T. Minimally invasive glaucoma surgery: Comparison of iStent with iStent inject in primary open angle glaucoma. *Clin Exp Ophthalmol*. 2019; 47(7):898–903. doi:10.1111/ceo.13526. PMID: 31034687.

Konopińska J, Byszewska A, Saeed E, Mariak Z, Rękas M. Phacotrabeculectomy versus Phaco with Implantation of the Ex-PRESS Device: Surgical and Refractive Outcomes-A Randomized Controlled Trial. *J Clin Med*. 2021 Jan 22; 10(3):424. doi: 10.3390/jcm10030424

Lim SY, Betzler BK, Yip LWL, Dorairaj S, Ang BCH. Standalone XEN45 Gel Stent implantation in the treatment of open-angle glaucoma: A systematic review and meta-analysis. *Surv Ophthalmol*. 2022 JulAug; 67(4):1048-1061. doi: 10.1016/j.survophthal.2022.01.003. Epub 2022 Jan 23. PMID: 35081414.

Samuelson TW, Sarkisian SR Jr, Lubeck DM, et al. Prospective, Randomized, Controlled Pivotal Trial of an Ab Interno Implanted Trabecular Micro-Bypass in Primary Open-Angle Glaucoma and Cataract: Two-Year Results. *Ophthalmology*. 2019; 126(6):811–821.

Sarkisian SR Jr, Grover DS, Gallardo MJ, Brubaker JW, Giamporcaro JE, Hornbeak DM, Katz LJ, Navratil T; iStent infinite Study Group. Effectiveness and Safety of iStent Infinite Trabecular MicroBypass for Uncontrolled Glaucoma. *J Glaucoma*. 2023 Jan 1; 32(1):9-18. doi: 10.1097/IJG.0000000000002141.

Stoner AM, Capitena Young CE, SooHoo JR, Pantcheva MB, Patnaik JL, Kahook MY, Seibold LK. A Comparison of Clinical Outcomes after XEN Gel Stent and EX-PRESS Glaucoma Drainage Device Implantation. *J Glaucoma*. 2021 Jun 1; 30(6):481-488. doi: 10.1097/IJG.0000000000001823. PMID: 34060508

U.S. Food and Drug Administration (FDA). PMA P080030a; P080030c: Glaukos iStent® Trabecular Micro-Bypass Stent (Models: GTS-100R, GTS-100L) and Inserter (GTS-100i). Accessed at <http://www.fda.gov/>.

Wagner FM, Schuster AK, Emmerich J, Chronopoulos P, Hoffmann EM. Efficacy and safety of XEN®—Implantation vs. trabeculectomy: Data of a “real-world” setting. *PLoS One*. 2020 Apr 20;15(4):e0231614.

Yang X, Zhao Y, Zhong Y, Duan X. The efficacy of XEN gel stent implantation in glaucoma: a systematic review and meta-analysis. *BMC Ophthalmol*. 2022 Jul 15; 22(1):305. doi: 10.1186/s12886022-02502-y.