# MEDICAL POLICY

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| **Medical Policy Title** | **Aqueous Drainage Devices (Stents and Shunts) for Glaucoma** |
| **Policy Number** | **9.01.18** |
| **Current Effective Date** | **January 22, 2026** |
| **Next Review Date** | **January 2027** |

Our medical policies are guides to evaluate technologies or services for medical necessity. Criteria are established through the assessment of evidence based, peer-reviewed scientific literature, and national professional guidelines. Federal and state law(s), regulatory mandates and the member's subscriber contract language are considered first in the determination of a covered service. (Link to Product Disclaimer)

## POLICY STATEMENT(S)

I. Insertion of an aqueous drainage device that has been approved by the United States Food and Drug Administration (FDA) is considered **medically appropriate** in patients with glaucoma for **EITHER** of the following indications:

   A. Medical therapy has failed to adequately control the intraocular pressure (IOP);

   B. Oral or topical medications are not tolerated by the patient (e.g., oral medications cause significant gastrointestinal (GI) effects or topical medications cause contact sensitivity or systemic effects).

II. Implantation of one (1) or two (2) FDA-approved micro-stents (e.g., iStent or iStent Inject) in conjunction with cataract surgery is considered **medically appropriate** when the **ALL** of the following criteria are met:

   A. Diagnosed with mild-to-moderate open-angle glaucoma (OAG);

   B. Currently being treated with ocular hypotensive medication(s).

III. The use of aqueous drainage devices inserted into the suprachoroidal space or supraciliary space in patients with glaucoma are considered **investigational**.

IV. All other uses of aqueous drainage devices, including but not limited to use in patients with glaucoma when IOP is adequately controlled by medications, are considered **investigational**.

## RELATED POLICIES

Corporate Medical Policy

11.01.03 Experimental or Investigational Services

## POLICY GUIDELINE(S)

Not Applicable

## DESCRIPTION

Glaucoma is a chronic disorder involving increased pressure in the eye due to fluid build-up. There

are several forms of glaucoma, with OAG being the most common. The increased pressure associated with OAG can lead to optic neuropathies characterized by visual field loss and structural damage to the optic nerve fiber. If left untreated, glaucoma can result in partial or complete visual impairment. Currently, IOP is the only treatable risk factor for glaucoma, and lowering IOP has proven beneficial in reducing the progression of loss of vision.

In most cases, topical or oral medication is the first treatment of choice. Glaucoma surgery (e.g., trabeculectomy) is intended to reduce IOP when the target IOP cannot be reached with medications. Due to complications with established surgical approaches such as trabeculectomy, a variety of devices, including aqueous shunts, are being evaluated as alternative surgical treatments for patients with inadequately controlled glaucoma. Microstents are also being evaluated in patients with mild to moderate OAG that is currently treated with ocular hypotensive medication.

Aqueous shunts, also known as aqueous drainage devices, glaucoma drainage devices, setons, tube implants, and tube shunts, are implanted into the eye to create an alternate path for aqueous humor to drain from the anterior or posterior chamber of the eye to a space between the conjunctiva and the sclera where it is absorbed into the blood, thereby lowering the IOP. These devices differ depending on explant surface areas, shape, plate thickness, presence or absence of a valve, and details of surgical installation. Generally, the risk of hypotony (low pressure) is reduced with aqueous shunts, in comparison with trabeculectomy, but IOP outcomes are higher than after standard guarded filtration surgery. Complications of anterior chamber shunts include corneal endothelial failure and erosion of the overlying conjunctiva. The risk of post-operative infection is lower than after trabeculectomy, and failure rates are similar, with about 10% of devices failing each year. The primary indication for aqueous shunts is that prior medical or surgical therapy has failed, although some ophthalmologists have advocated their use as a primary surgical intervention, particularly for selected conditions such as congenital glaucoma, trauma, chemical burn, or pemphigoid.

Other aqueous stents (e.g., microstents) are being developed as minimally penetrating methods to drain aqueous humor from the anterior chamber into Schlemm's canal or the suprachoroidal space. These include the iStent (Glaukos), which is a 1-mm long stent inserted into the end of Schlemm's canal by an internal approach through the cornea and anterior chamber, and the third generation iStent supra, which is designed for ab interno implantation into the suprachoroidal space. An advantage of ab interno shunts is that they may be inserted into the same incision while cataract surgery is being performed. In addition, most devices do not preclude subsequent trabeculectomy if needed. It may also be possible to insert more than one shunt to achieve the desired IOP.

## SUPPORTIVE LITERATURE

Sheybani et al (2023) conducted a prospective, randomized, multicenter, noninferiority trial comparing gel stent (XEN45) versus trabeculectomy in patients (N=139) with open angle glaucoma and IOP of 15 to 44 mm Hg while receiving topical IOP medication. Patients were randomized 2:1 to gel stent implantation or trabeculectomy. At 12 months XEN45 was noninferior to trabeculectomy in terms of surgical success which was defined as at least a 20% reduction in IOP without a medication increase, clinical hypotony, vision loss, or secondary surgical intervention (between group difference, -6.1%; 95% CI, -22.9% to 10.8%). XEN45 resulted in fewer in-office postoperative interventions and

faster visual recovery, and greater six-month improvements in visual function problems than trabeculectomy.

Randomized, controlled trials (RCTs) have shown that the use of large, externally placed shunts with extraocular reservoirs results in success rates as good as standard filtering surgery (trabeculectomy). Shunts have a different side effect profile and avoid some of the most problematic complications of trabeculectomy.

Gedde and colleagues (2012) reported five-year follow-up from an open-label, multicenter, randomized tube versus trabeculectomy (TVT) study. The study included 212 eyes of 212 patients (aged 18 to 85 years) who had previous trabeculectomy and/or cataract extraction with intraocular lens implantation, uncontrolled glaucoma with IOP of 18 mm Hg or greater, as well as 40 mm Hg or lower on maximal-tolerated medical therapy. Patients were assigned either a tube shunt (Baervelt implant, n=107) or trabeculectomy with mitomycin C (n=105). Excluding patients who had died, the study had 82% follow-up at five years, with a similar proportion of patients in the tube and trabeculectomy groups. At five years, neither IOP (14.3 mm Hg in the tube group and 13.6 mm Hg in the trabeculectomy group) nor number of glaucoma medications (1.4 in the tube group and 1.2 in the trabeculectomy group) were significantly different with intent-to-treat analysis. The cumulative probability of failure over the five years was lower in the tube group than the trabeculectomy group (29.8% versus 46.9%), and the rate of reoperation was lower (9% versus 29%). The rate of loss of two or more lines of visual acuity was similar in the two groups (46% in the tube group and 43% in the trabeculectomy group).

Implantation of the Ex-PRESS mini shunt under a scleral flap was compared with standard trabeculectomy in a randomized study of 78 patients (80 eyes) with a diagnosis of OAG that could not be controlled with maximal-tolerated medical therapy (de Jong 2009). The two groups were similar after randomization, with the exception of difference in the mean age (62 years for the Ex-PRESS group and 69 years for the trabeculectomy group). At an average 12 months' follow-up, mean IOP had improved from 23 to 12 mm Hg in the Ex-PRESS group and from 22 to 14 mm Hg in the trabeculectomy group. Both groups of patients used fewer anti-glaucoma medications post-operatively than before the procedure (from 2.8 at baseline to 0.3 in the Ex-PRESS group and from 3.0 at baseline to 0.6 in the trabeculectomy group). Twelve-month Kaplan-Meier success rates (defined as an IOP of >4 mm Hg and $\leq$18 mm Hg without use of anti-glaucoma medications) were 82 percent for the Ex-PRESS shunt and 48 percent for trabeculectomy. There was a similar level of postoperative complications in the two groups.

A 2017 Cochrane Systematic Review (Tseng 2017) found that there was insufficient information to conclude whether aqueous shunts or trabeculectomy yielded superior results, with heterogenous methodology and data quality across studies. Therefore, the selection of aqueous shunts or trabeculectomy should be left to the discretion of the treating ophthalmologist, in consultation with the individual patient. The term minimally invasive glaucoma surgery, or MIGS, refers to a group of surgical procedures that are performed using an ab interno approach and involve minimal trauma to ocular tissues. Limited long-term data is currently available for MIGS, given its relatively recent introduction. Modest IOP reduction has been reported following MIGS, and postoperative pressures are typically in the middle to upper teens. Although less effective in lowering IOP than

trabeculectomy and aqueous shunt surgery, MIGS appears to have a more favorable safety profile in the short term. Currently available MIGS includes procedures targeting the trabecular meshwork/Schlemm's canal and the subconjunctival space. They are commonly combined with phacoemulsification; some are only FDA approved to be performed concurrently with phacoemulsification.

Use of microstents has been studied in patients with both cataracts and less advanced glaucoma, where the IOP is at least partially controlled with medication. Results from these studies indicate that IOP may be lowered below baseline with decreased need for medication, although the benefit appears to diminish after the first year. Samuelson et al (2011) conducted a multi-center RCT to assess the safety and efficacy of cataract surgery with iStent (n=111) compared to cataract surgery without iStent (control group) (n=123). Patients had OAG and a plan to undergo phacoemulsification for cataracts. Follow-ups occurred for up to 12 months. The primary outcome measure was IOP less than or equal to 21 mmHg without ocular hypotensive medication, and the secondary measure was greater than or equal to 20 percent reduction in IOP from baseline without medication. Additional efficacy measures included medication use and visual acuity. Compared to the control group, significantly more patients in the treatment group achieved primary and secondary outcomes ($p<0.001$, $p=003$, respectively). At the 12-month follow-up, 70 percent of the treatment group versus 50 percent of the control group had achieved both the primary and secondary outcomes. There was a significant delay in the introduction of medication in the treatment group versus the control group ($p<0.001$), and significantly more patients in the control group required medication at 12 months ($p=0.001$). The overall adverse events were similar in both groups. Both groups improved in vision, with no significant differences between the groups.

Craven and colleagues (2012) reported two-year follow-up of the above-noted iStent study. There were 199 of the original 239 patients (83%) remaining in the study. The primary endpoint, IOP of 21 mm Hg or less without use of medication, was reached by 61 percent of patients in the treatment group, compared to 50 percent of patients in the control group ($p=0.036$). The secondary outcomes of IOP reduction of 20 percent or more without medication (53% versus 44%) and mean number of medications used (0.3 versus 0.5) were no longer significantly different between the groups at two years. As noted by the FDA, this study was conducted in a restricted population of patients who had an unmedicated IOP of 22 mm Hg or higher and 36 mm Hg or lower. The results of this study indicate that treatment of this specific population with a microstent is likely to improve outcomes at one year, compared to cataract surgery alone.

Chen and colleagues (2020) performed a meta-analysis to evaluate the effectiveness of iStent as a standalone operation in patients with OAG. Prospective and retrospective clinical studies written in English that investigated the effect of iStent in at least five eyes were included. A total of 17 studies involving 978 eyes with 599 eyes implanted with the first-generation iStent and 379 eyes with the second-generation iStent were analyzed. Follow-up duration varied among studies with the longest follow-up extending 42 months. The number of iStents varied from one to three stents per eye with 75.5% of eyes implanted with two stents. All studies reported a reduction in IOP after iStent implantation. Pooled result demonstrated a significant standardized mean difference (SMD) of −2.64. The majority of studies also reported a reduction in the number of medications at the end point compared to baseline with an overall SMD of -1.71. The authors determined moderate heterogeneity

in studies evaluating the SMDs of IOP, as well as the number of medications. Most of the studies had a complication rate of less than 20%. Subgroup analyses revealed the higher number of iStents resulted in a greater IOP reduction. The authors concluded iStent can reduce the IOP and the number of medications in patients with OAG as a standalone procedure. Limitations include potential publication bias with several industry sponsored studies and substantial heterogeneity among studies. Included studies tended to have small sample sizes and lacked a control group.

Fan Gaskin et al (2024) reported on a prospective, randomized, assessor-masked controlled trial with 87 patients (n=101 eyes) that compared the effectiveness of cataract surgery plus iStent Inject implantation versus cataract surgery alone in patients with mild-to-moderate glaucoma. At the 24-month follow-up, the iStent Inject group used significantly fewer medications compared to the cataract surgery alone group (mean, 0.7 vs. 1.5; p=.008) and had a higher proportion of patients taking no glaucoma medications (57% vs. 36%). At 4 weeks post-surgery, a lower IOP was observed in the iStent group (mean difference, -2.8 mmHg [95% CI, -4.7 to -1]) but there was no difference in subsequent follow-up assessments. Both groups showed improvement in patient-reported outcomes from baseline levels (Ocular Surface Disease Index score and Glaucoma Activity Limitation Questionnaire), with no significant differences between groups. The safety profiles were similar between the two groups. The authors concluded this study showed combined cataract surgery with iStent Inject achieved a clinically- and statistically-significantly greater reduction in ocular hypotensive medication usage at 24-months compared to cataract surgery alone, with no significant difference in IOP.

Hengerer et al (2024) conducted a prospective, non-randomized, unmasked, longitudinal study (n=125) which evaluated 7-year effectiveness and safety of second-generation trabecular micro-bypass implantation (iStent inject) either in combination with cataract surgery or as a standalone procedure (combined or standalone subgroups, respectively) in eyes with open-angle glaucoma. Patients had considerable preoperative disease burden, with mean intraocular pressure (IOP) of 23.5 mmHg, 84.8% of eyes on C 2 medications, and 38.4% of eyes with prior glaucoma surgery. IOP, medications, adverse events, and secondary surgeries were assessed through 7 years in the overall cohort and in combined (n = 81) and standalone (n = 44) subgroups. Over 7-year follow-up, mean IOP decreased by 36.2–40.0% in Overall eyes, 34.1–38.9% in Combined eyes, and 39.5–43.5% in Standalone eyes. Mean medications decreased by 59.3–71.3% in Overall eyes, 57.9–69.0% in Combined eyes, and 62.1–76.2% in Standalone eyes. At last follow-up versus preoperative, 100% of eyes in all groups had the same or lower IOP and 100% had the same or lower medication regimen. The authors concluded this study showed iStent inject implantation with or without phacoemulsification produced significant and durable 7-year reductions in IOP (34–44% reduction) and medications (58–76% reduction) while preventing filtering surgery with favorable safety outcomes.

Sarkisian et al (2023) published the results of an open-label, single-arm, pivotal study evaluating iStent infinite in patients with OAG uncontrolled by prior surgical or medical therapy. A total of 72 patients were enrolled from 15 sites in this trial. All patients were implanted with the iStent infinite System and received 3 stents. The majority of patients had failed prior surgery (n=61), and the remainder were uncontrolled on medical therapy (n=11). At 12 months the proportion of patients achieving at least 20% reduction in IOP and receiving the same or fewer medications was 76.1%

(95% CI, 66.2% to 86.1%). The mean reduction in IOP at12 months was 5.9 mm Hg (standard error, 0.6; 95% CI, 4.8 to 7.1). No serious device-related adverse events were reported; however, blepharitis (4.2%), IOP increase requiring surgical intervention (4.2%), loss of best spectacle corrected visual acuity of 2 lines or more (8.3%), ocular surface disease (9.7%), and visual field loss of at least 2.5 dB were commonly reported adverse events. Stent migration and stent obstruction were each reported in 2 patients. Although this trial indicates positive outcomes with iStent infinite, the small sample size and lack of a control group are significant limitations.

Shultz et al (2025) conducted a manufacturer sponsored, multicenter study to evaluate the effectiveness and safety of iStent infinite, a trabecular microbypass implant, combined with phacoemulsification (n=233 eyes). In all eyes with 12-month follow-up data (n = 96, consistent cohort), the mean IOP reduced from 17.2 ± 4.2 mmHg preoperatively to 13.8 ± 3.0 mmHg at Month 12 (p = 0.001), while the mean number of medications reduced from 1.24 ± 0.91 preoperatively to 0.61 ± 0.96 at month 12 (p = 0.001). The proportions of eyes achieving IOP ≤ 18/15/12 mmHg increased from 63.5%, 34.4%, and 14.6% preoperatively to 92.7%, 71.9%, and 37.5%, respectively at month 12, (all p = 0.001). The proportions of eyes off medication increased from 16.7% preoperatively to 62.5% at Month 12 (p = 0.001). A noted limitation of the data analysis is that cases were completed in combination with cataract surgery, so it was not possible to delineate the potentially IOP-lowering effect of lens extraction from that of iStent infinite implantation. The authors conclude that this manufacturer sponsored study demonstrates reductions in IOP and the number of topical glaucoma medications required following iStent infinite trabecular micro-bypass and phacoemulsification.

## PROFESSIONAL GUIDELINE(S)

The American Academy of Ophthalmology (AAO) published a technology assessment on commercially available aqueous shunts, including the Ahmed, Baerveldt, Krupin, and Molteno devices (Minckler 2008). This review indicated that the IOP will generally settle at higher levels (approximately 18 mm Hg) with aqueous shunts than after standard trabeculectomy (14-16 mm Hg) or after trabeculectomy with antifibrotic agents 5-fluorouacil or mitomycin C (8-10 mm Hg). In one study, IOPs with the Baerveldt shunt and adjunct medications were found to be equivalent to trabeculectomy with mitomycin C (13 mm Hg). Five-year success rates for the two procedures were found to be similar (50%). The assessment concluded that, based on level 1 evidence, aqueous shunts were comparable to trabeculectomy for IOP control and duration of benefit. The risk of postoperative infection was lower with aqueous shunts than after trabeculectomy. Complications of aqueous shunts were noted to include immediate hypotony after surgery; excessive capsule fibrosis and clinical failure; erosion of the tube or plate edge; strabismus; and, very rarely, infection. The most problematic long-term consequence of anterior chamber tube placement was described as accelerated damage to the corneal endothelium over time.

AAO published a technology assessment on aqueous shunts with extraocular reservoir for open-angle adult glaucoma (Chopra 2024). They concluded that the implantation of aqueous shunts with extraocular reservoir, including valved or nonvalved devices, has been shown to be an effective strategy to lower IOP. Strong level I evidence supports the use of aqueous shunts with extraocular reservoir by clinicians for the management of adult OAG.

AAO Primary Open-Angle Glaucoma Preferred Practice Pattern (2020) states the indications for using aqueous shunts have been broadening, and these devices are being increasingly used in the surgical management of glaucoma. Several studies have compared aqueous shunts with trabeculectomy.

The American Glaucoma Society (Fellman 2020) published a position paper on microinvasive glaucoma surgery. The society supports efforts that facilitate patient access to these procedures, including more flexible regulatory pathways for new devices, expansion of the indications for already approved devices, and greater availability of information obtained by regulatory authorities.

The National Institute for Health and Care Excellence (NICE) issued interventional procedural guidance for trabecular stent bypass microsurgery for open angle glaucoma (NICE 2017). They report, “Current evidence on the safety of trabecular stent bypass microsurgery for open-angle glaucoma raises no major safety concerns. Evidence on efficacy is adequate in quality and quantity. Therefore, this procedure may be used.”

NICE also issued procedural guidance for microinvasive subconjunctival insertion of trans-scleral gelatin stents for primary open-angle glaucoma (NICE 2018). They report, “evidence on the safety and efficacy of microinvasive subconjunctival insertion of a trans-scleral gelatin stent for primary open-angle glaucoma is limited in quantity and quality…NICE encourages further research into microinvasive subconjunctival insertion of a trans-scleral gelatin stent for primary open-angle glaucoma, including randomized studies. Further research should include details of patient selection and long-term outcomes.”

## REGULATORY STATUS

The first-generation Ahmed (New World Medical), Baerveldt (Advanced Medical Optics), Krupin (Eagle Vision), and Molteno (Molteno Ophthalmic) aqueous shunts received marketing clearance from the FDA between 1989 and 1993; modified Ahmed and Molteno devices were cleared in 2006. Their indication for use is “in patients with intractable glaucoma to reduce IOP where medical and conventional surgical treatments have failed.”

The AquaFlow Collagen Glaucoma Drainage Device received premarket approval from the FDA in 2001 for the maintenance of sub-scleral space following nonpenetrating deep sclerectomy.

The Ex-PRESS Mini Glaucoma Shunt received Section 510(k) marketing clearance in 2003. The Ex-PRESS shunt is placed under a partial thickness scleral flap and transports aqueous fluid from the anterior chamber of the eye into a conjunctival filtering bleb.

Alcon (a division of Novartis) received FDA approval for its CyPass micro-stent in July 2016. CyPass is a micro-invasive glaucoma surgical (MIGS) device to treat patients with mild to moderate primary OAG in conjunction with cataract surgery. The CyPass Micro-Stent is designed to control IOP by creating a drainage pathway from the anterior chamber to the suprachoroidal space. The FDA approval was based on the COMPASS Study, which included two-year follow-up of over 500 patients undergoing cataract surgery. On August 29, 2018, Alcon Research, LTD voluntarily issued a recall of the CyPass Micro-Stent and withdrew this product from the global market. The decision for the withdrawal was based on five-year post-surgery data from the COMPASS XT long-term safety study. The study demonstrated a clinically and statistically significant increase in corneal endothelial cell loss

in patients who received the CyPass Micro-Stent. Based upon its review of this data, the FDA issued a Safety Communication notifying physicians and patients of the risk associated with this device and recommended that the use of this device be discontinued. The FDA recalled the CyPass device on August 28, 2018; therefore, it is no longer available for use.

On November 21, 2016, the FDA cleared Allergen's XEN Glaucoma Treatment System (consisting of the XEN45 Gel Stent and the XEN Injector). The XEN45 Gel Stent is a glaucoma implant designed to reduce IOP in eyes suffering from refractory glaucoma, including cases where previous surgical treatment has failed, in cases of primary OAG, and in cases of pseudo-exfoliative or pigmentary glaucoma with open angles that are unresponsive to maximal-tolerated medical therapy. The device creates a permanent channel through the sclera, allowing flow of aqueous humor from the anterior chamber into the subconjunctival space. The XEN45 Gel Stent is inserted via an ab interno approach, through a small corneal incision.

In 2012, the FDA approved the Glaukos Corporation's iStent Trabecular Micro-Bypass Stent, as indicated for use in conjunction with cataract surgery for the reduction of IOP in adult patients with mild to moderate OAG that is currently treated with ocular hypotensive medication.

In 2018, the iStent Inject device (Glaukos), was approved by the FDA through the 515(d) process for use in conjunction with cataract surgery for the reduction of IOP in adults with mild-to-moderate OAG currently treated with ocular hypotensive medication. The iStent Inject trabecular micro-bypass system contains two preloaded intraocular stents in the injector.

In August 2022 Glaukos' iStent Infinite was approved by the FDA to be inserted as a stand-alone procedure. iStent infinite consists of three micro stents on a single preloaded injector. The stents are designed to be implanted ab interno in three separate areas of the trabecular meshwork, creating a patent bypass through the trabecular meshwork into Schlemm canal to increase physiological aqueous outflow and reduce IOP.

## CODE(S)

- Codes may not be covered under all circumstances.
- Code list may not be all inclusive (AMA and CMS code updates may occur more frequently than policy updates).
- (E/I)=Experimental/Investigational
- (NMN)=Not medically necessary/appropriate

### CPT Codes

| Code | Description |
|---|---|
| 0253T (E/I) | Insertion of anterior segment aqueous drainage device, without extraocular reservoir, internal approach, into the suprachoroidal space |
| 0449T | Insertion of aqueous drainage device, without extraocular reservoir, internal approach, into the subconjunctival space; initial device |

| Code | Description |
|---|---|
| 0450T | Insertion of aqueous drainage device, without extraocular reservoir, internal approach, into the subconjunctival space; each additional device<br>(List separately in addition to code for primary procedure) |
| 0474T (E/I) | Insertion of anterior segment aqueous drainage device, with creation of intraocular reservoir, internal approach, into the supraciliary space |
| 0671T | Insertion of anterior segment aqueous drainage device into the trabecular meshwork, without external reservoir, and without concomitant cataract removal, one or more |
| 66179 | Aqueous shunt to extraocular equatorial plate reservoir, external approach; without graft |
| 66180 | Aqueous shunt to extraocular equatorial plate reservoir, external approach; with graft |
| 66183 | Insertion of anterior segment aqueous drainage device, without extraocular reservoir, external approach |
| 66184 | Revision of aqueous shunt to extraocular equatorial plate reservoir; without graft |
| 66185 | Revision of aqueous shunt to extraocular equatorial plate reservoir; with graft |
| 66989 | Extracapsular cataract removal with insertion of intraocular lens prosthesis (1-stage procedure), manual or mechanical technique (e.g., irrigation and aspiration or phacoemulsification), complex, requiring devices or techniques not generally used in routine cataract surgery (e.g., iris expansion device, suture support for intraocular lens, or primary posterior capsulorrhexis) or performed on patients in the amblyogenic developmental stage; with insertion of intraocular (e.g., trabecular meshwork, supraciliary, suprachoroidal) anterior segment aqueous drainage device, without extraocular reservoir, internal approach, one or more |
| 66991 | Extracapsular cataract removal with insertion of intraocular lens prosthesis (1 stage procedure), manual or mechanical technique (e.g., irrigation and aspiration or phacoemulsification); with insertion of intraocular (e.g., trabecular meshwork, supraciliary, suprachoroidal) anterior segment aqueous drainage device, without extraocular reservoir, internal approach, one or more |



## HCPCS Codes

| Code | Description |
|---|---|
| C1783 | Ocular implant, aqueous drainage assist device |
| L8612 | Aqueous shunt |

## ICD10 Codes

| Code | Description |
|---|---|
| E08.36 | Diabetes mellitus due to underlying condition with diabetic cataract |
| E09.36 | Drug or chemical induced diabetes mellitus with diabetic cataract |
| E10.36 | Type 1 diabetes mellitus with diabetic cataract |
| E11.36 | Type 2 diabetes mellitus with diabetic cataract |
| E13.36 | Other specified diabetes mellitus with diabetic cataract |
| H25.011-H25.9 | Age-related cataract (code range) |
| H26.011-H26.069 | Infantile and juvenile cataract (code range) |
| H26.101-H26.139 | Traumatic cataract (code range) |
| H26.20 | Unspecified complicated cataract |
| H26.211-H26.219 | Cataract with neovascularization (code range) |
| H26.221-H26.229 | Cataract secondary to ocular disorders (degenerative) (inflammatory) (code range) |
| H26.231-H26.239 | Glaucomatous flecks (subcapsular) (code range) |
| H26.30-H26.33 | Drug-induced cataract (code range) |
| H26.40 | Unspecified secondary cataract |
| H26.411-H26.419 | Soemmering's ring (code range) |
| H26.491-H26.499 | Other secondary cataract (code range) |
| H26.8 | Other specified cataract |
| H26.9 | Unspecified cataract |
| H28 | Cataract in diseases classified elsewhere |

| Code | Description |
|---|---|
| H40.001-H40.009 | Preglaucoma, unspecified (code range) |
| H40.011-H40.029 | Open angle with borderline findings (code range) |
| H40.031-H40.039 | Anatomical narrow angle (code range) |
| H40.041-H40.049 | Steroid responder (code range) |
| H40.051-H40.059 | Ocular hypertension (code range) |
| H40.061-H40.069 | Primary angle closure without glaucoma damage (code range) |
| H40.10x0-H40.10x4 | Unspecified open-angle glaucoma (code range) |
| H40.1111-H40.1134 | Primary open-angle glaucoma (code range) |
| H40.1210-H40.1294 | Low tension glaucoma (code range) |
| H40.1310-H40.1394 | Pigmentary glaucoma (code range) |
| H40.141-H40.1494 | Capsular glaucoma with pseudoexfoliation of lens (code range) |
| H40.151-H40.159 | Residual stage of open-angle glaucoma (code range) |
| H40.20x0-H40.20x4 | Unspecified primary angle-closure glaucoma (code range) |
| H40.211-H40.219 | Acute angle-closure glaucoma (code range) |
| H40.2210-H40.2294 | Chronic angle-closure glaucoma (code range) |

| Code | Description |
|---|---|
| H40.231-H40.239 | Intermittent angle-closure glaucoma (code range) |
| H40.241-H40.249 | Residual stage of angle-closure glaucoma (code range) |
| H40.30x0-H40.33x4 | Glaucoma secondary to eye trauma (code range) |
| H40.40x0-H40.43x4 | Glaucoma secondary to eye inflammation (code range) |
| H40.50x0-H40.53x4 | Glaucoma secondary to other eye disorders (code range) |
| H40.60x0-H40.63x4 | Glaucoma secondary to drugs (code range) |
| H40.811-H40.819 | Glaucoma with increased episcleral venous pressure (code range) |
| H40.821-H40.829 | Hypersecretion glaucoma (code range) |
| H40.831-H40.839 | Aqueous misdirection (code range) |
| H40.89 | Other unspecified glaucoma |
| H40.9 | Unspecified glaucoma |
| H42 | Glaucoma in diseases classified elsewhere |
| Q15.0 | Congenital glaucoma |

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## CENTERS FOR MEDICARE AND MEDICAID SERVICES (CMS)

Micro-Invasive Glaucoma Surgery (MIGS) (LCD L37244) [accessed 2024 December 18].

## PRODUCT DISCLAIMER

- Services are contract dependent; if a product does not cover a service, medical policy criteria do not apply.
- If a commercial product (including an Essential Plan or Child Health Plus product) covers a specific service, medical policy criteria apply to the benefit.
- If a Medicaid product covers a specific service, and there are no New York State Medicaid guidelines (eMedNY) criteria, medical policy criteria apply to the benefit.
- If a Medicare product (including Medicare HMO-Dual Special Needs Program (DSNP) product) covers a specific service, and there is no national or local Medicare coverage decision for the service, medical policy criteria apply to the benefit.
- If a Medicare HMO-Dual Special Needs Program (DSNP) product DOES NOT cover a specific service, please refer to the Medicaid Product coverage line.

## POLICY HISTORY/REVISION

**Committee Approval Dates**

03/20/14, 03/19/15, 03/17/16, 04/20/17, 04/19/18, 04/18/19, 04/16/20, 03/18/21, 03/24/22, 02/16/23, 02/22/24, 01/23/25, 01/22/26

| Date | Summary of Changes |
|---|---|
| 01/22/26 | • Annual review, policy title change, policy intent unchanged |
| 01/23/25 | • Annual review, policy intent unchanged |
| 01/01/25 | • Summary of changes tracking implemented. |
| 03/20/14 | • Original effective date |