Medical Policy

Utilization Management and Clinical Medical Policy

Policy Name:	Policy Number:	Scope:	Origination Date:	Frequently Revision:
Ophthalmic use of Nd: YAG Laser for Posterior Capsulotomy	**MP-SU-FP-04-25**	☒ **MMM MA** ☒ **MMM MultiHealth**	**08/22/2025** **Last Review Date:** **08/22/2025**	**Annual** **Page: 1 of 7**

Service Category:

☐ Anesthesia
☒ Surgery
☐ Radiology Procedures
☐ Pathology and Laboratory Procedures
☐ Medicine Services and Procedures
☐ Evaluation and Management Services
☐ DME/Prosthetics or Supplies
☐ Other: _____

Service Description:

Neodymium-doped yttrium garnet and aluminum (YAG) laser capsulotomy is a laser-based surgical procedure intended to treat a common complication after cataract surgery in which the individual experiences clouding in part of the lens called posterior capsule opacification [1].Opacification usually increases over time, and the timing of onset varies. A YAG laser beam is directed at the back of the lens capsule to create a small opening that allows light to pass through for clearer vision [2].

This policy establishes the clinical and administrative guidelines for the use of posterior capsulotomy with Nd:YAG laser, defining the circumstances in which the procedure is considered medically necessary, as well as its limitations and restrictions. Its benefits in restoring visual function and improving the quality of life of patients with clinically significant PCO are recognized, while its prophylactic or routine application is discouraged in the absence of documented medical indication. It also details safety considerations, absolute and relative contraindications, and applicable diagnostic and procedural codes in accordance with current clinical guidelines and regulations.

Background Information:

Posterior capsular opacification (PCO) is the most common delayed complication following cataract surgery with intraocular lens (IOL) implantation, resulting from residual lens epithelial cell proliferation on the posterior capsule. The American Academy of Ophthalmology (AAO), in its 2021 Preferred Practice Pattern® for Cataract in the Adult Eye, recognizes posterior capsulotomy with Nd:YAG laser as an effective procedure to restore visual function, particularly contrast sensitivity, by removing the opacified visual axis [1].

The primary clinical indication for Nd:YAG laser capsulotomy is the presence of visually significant PCO that leads to symptoms such as blurred vision, glare, or reduced contrast sensitivity, which impair daily functioning. The procedure is also indicated when PCO interferes with visualization of the posterior segment for diagnosis or treatment, especially in patients with coexisting conditions like diabetic retinopathy or glaucoma [1–2].

The decision to perform a capsulotomy must be based on a comprehensive evaluation of risks and benefits. The procedure is generally not recommended in the absence of functional visual impairment or fundus obstruction. Prophylactic laser capsulotomy (in the absence of PCO) is not supported by clinical evidence and is discouraged [1].

In patients with multifocal intraocular lenses (MIOLs), early capsulotomy may be indicated due to the greater functional impact of even minimal PCO under low contrast or glare conditions [3].

Journal of cataract & refractive surgery evaluated the capsulotomy rate and its variations and validated that one of the significant variations in practice in performing Nd:YAG laser capsulotomy is within 1 year after surgery.

A study of posterior capsule opacification in 5416 postmortem pseudophakic eyes identified 6 factors associated with reduced posterior capsule opacification [2]:

- Cortical cleaning associated with hydrodissection
- Fixing intraocular lenses in the pouch
- Diameter of continuous circular capsulorhexis slightly smaller than IOL optics
- Intraocular lens material associated with reduced cell proliferation: Hydrogel intraocular lenses are associated with the highest rate of posterior capsule opacification. Polymethylmethacrylate (PMMA) is the intermediate, and silicone-acrylic optical material is the lowest.
- Maximum opacification of the intraocular lens to the posterior capsule
- IOL optical geometry with truncated square edge

Additional Indications:
A rare but recognized indication for Nd:YAG capsulotomy is capsular block syndrome (also known as capsular bag distension syndrome), characterized by accumulation of fluid between the IOL and the posterior capsule, often associated with anterior displacement of the IOL, myopic shift, and decreased visual acuity [4]. Kanclerz et al. (2019) concluded that YAG capsulotomy is the standard treatment for this condition, whether PCO is present [4].

Management of intraocular pressure (IOP):
Although routine prophylactic treatment with IOP-lowering agents is not consistently supported by evidence, monitoring is advised in high-risk patients, such as those with glaucoma. Various hypotensive agents have demonstrated efficacy in attenuating IOP spikes post-procedure [5].

Postoperative Considerations:
Van Bree et al. (2008) emphasizes the importance of postoperative follow-up after capsulotomy to detect and manage rare complications, including retinal detachment, cystoid macular edema, or intraocular lens damage [6].

Clinical Outcomes:
In a 36-month retrospective study, Montrimas et al. (2025) reported that 88.4% of patients experienced an improvement of at least two lines in corrected visual acuity after the procedure [7]. Koch et al. (2020) demonstrated significant improvements in patient-reported outcomes, including visual independence, mobility, and functional performance in low-light environments [2,12].

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Medical Necessity Guidelines:

Posterior Nd:YAG laser capsulotomy is considered medically necessary in the following clinical circumstances:

I. Posterior capsular opacification (PCO) with functional symptoms:

The procedure is medically necessary only if all the following criteria are met:

- Visual symptoms attributable to posterior capsular opacification (PCO), such as blurred vision, visual distortion, photophobia, or glare, that significantly affect the patient's functional ability in their daily activities [1–3].
- Other causes of visual dysfunction, such as age-related macular degeneration, macular edema, diabetic retinopathy, or advanced glaucoma, have been ruled out [1,4].
- Clinically documented post-procedure functional improvement is anticipated as visual gain (e.g., ≥2 lines in corrected visual acuity) or visual contrast restoration [4–6].

II. Additional diagnostic or therapeutic indications:

It is considered medically necessary even without visual symptoms, when the procedure allows for the performance or improvement of relevant therapeutic or diagnostic procedures, such as:

1. Posterior segment visualization in patients with PCO opaque media, when necessary to:
    - Photocoagulation due to diabetic retinopathy [14]
    - Optic Nerve Evaluation in Glaucoma [15]
    - Surgical planning for retinal detachment [1,4]
2. Capsular block syndrome (also known as capsular pouch distension syndrome or viscoelastic entrapment), characterized by anterior displacement of the intraocular lens and accumulation of fluid behind the optical lens [2,7].

Not Medically Necessary:

Posterior Nd:YAG laser capsulotomy is considered non-medically necessary when:

- It is performed prophylactically, in the absence of visual symptoms or clinically significant PCO [1,3].
- It is ordered as part of a routine post-cataract surgery practice with no functional evidence of opacification [1].

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Limits or Restrictions:

1. The posterior capsulotomy service requires the evaluation and determination process.
2. As published in COM IOM Publication 100-08, Medicare Program Integrity Manual, Chapter 13, Section 13.5.4, an item or service may be covered by an LCD contractor if it is reasonable and necessary under the Social Security Act, Section 1862(a)(1)(A). Contractors shall determine and describe the circumstances under which the item or service is deemed reasonable and necessary.
3. Capsulotomy should not be routine after cataract surgery; it is rarely clinically indicated within the first 3 to 4 months postoperatively [9,13].
4. It is limited to one intervention per eye, unless there is documentation of a new condition that justifies a second capsulotomy [9].
5. Determining coverage for a procedure performed with a laser is based on the fact that the use of lasers to alter, review, or destroy tissue is a surgical procedure. Therefore, coverage of laser procedures is restricted to professionals with training in the surgical treatment of the disease or condition being treated [11], According to CMS. This means that the coverage of laser procedures is restricted to professionals with training in the surgical management of the disease or condition being treated.
6. Absolute contraindications include [2]:
    - Scarring, irregularities, or edema of the cornea that interfere with the visualization of the target or make optical breakdown unpredictable
    - Inadequate eye stability
7. Relative contraindications [2]:
    - Intraocular glass lens
    - Active cystoid macular edema
    - Active intraocular inflammation
    - High risk of retinal detachment [1,10]
8. Potential Complications (<5%) [2, 10]:
    - Transient increase in intraocular pressure
    - Retinal detachment
    - Intraocular lens damage or displacement
    - Endophthalmitis
    - Macular hole
    - Iritis o vitritis

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Codes Information:

ICD-10 Diagnostic Codes:

Codes	Description
H26.40-H26.499	Secondary cataract
H26.9	Unspecified cataract
T85.21XA	Breakdown (mechanical) of intraocular lens, initial encounter
T85.29XA	Other mechanical complication of intraocular lens, initial encounter

HCPCS Codes:

Codes	Description
N/A	-

CPT Codes:

Codes	Description
66820	Discission of secondary membranous cataract (opacified posterior lens capsule and/or anterior hyaloid); stab incision technique (Ziegler or Wheeler knife)
66821	Discission of secondary membranous cataract (opacified posterior lens capsule and/or anterior hyaloid); laser surgery (eg, yag laser) (1 or more stages).

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Type of Review	Summary of Changes	P&T Approval Date	UM/CMPC Approval Date
Superseded	This policy MP-SU-FP-04-25 supersedes version MP-SU-FP-01-23, which is archived for reference and/or audit purposes. This policy is aligned with American Academy of Ophthalmology and presented the Complete revision and restructuring of the previous policy with his Policy name, Services description, clinical criteria, formatting, references, and coding sections were updated to align with current standards. This version replaces the prior policy in its entirety.	Not required	**08/22/2025**