

Policy Name:	Laser Treatments for Neovascularization Associated with Macular Degeneration
Effective Date:	8/19/2019

Important Information – Please Read Before Using This Policy

These services may or may not be covered by all Medica plans. Please refer to the member’s plan document for specific coverage information. If there is a difference between this general information and the member’s plan document, the member’s plan document will be used to determine coverage. With respect to Medicare and Minnesota Health Care Programs, this policy will apply unless those programs require different coverage. Members may contact Medica Customer Service at the phone number listed on their member identification card to discuss their benefits more specifically. Providers with questions about this Medica coverage policy may call the Medica Provider Service Center toll-free at 1-800-458-5512.

Medica coverage policies are not medical advice. Members should consult with appropriate health care providers to obtain needed medical advice, care and treatment.

Coverage Policy

Conventional focal laser treatment using an argon or diode laser is **COVERED** for patients with macular degeneration who demonstrate choroidal neovascularization (CNV) outside the center of the macula.

Transpupillary thermotherapy using a warm infrared diode laser to treat classic or occult CNV is investigative and therefore **NOT COVERED**.

Laser photocoagulation of retinal drusen to prevent loss of visual acuity due to possible development of classic or occult CNV is investigative and therefore **NOT COVERED**.

Note: See also related Medica coverage policies; *Intravitreal Vascular Endothelial Growth Factor (VEGF) Inhibitor Antibody Treatment for Neovascular Ocular Indications* and *Photodynamic Therapy with Visudyne® (verteporfin) for Ocular Indications*.

Note: This policy is no longer scheduled for routine review of the scientific literature.

Description

The most frequent cause of blindness among people over 60 in the western world is macular degeneration. As macular degeneration progresses, two distinctively different forms may develop. Neovascular, or wet, macular degeneration is the most severe form of the two. Wet macular degeneration results when new blood vessels grow over the posterior of the eye (known as classical choroidal neovascularization [CNV]) and results in blood and serum leaking into the retina. Vascular leakage causes blister formation in the retina and damage to the macular area, interfering with central vision. Risk of developing severe irreversible loss of vision is greatly increased by the presence of CNV.

Chronic, dry macular degeneration (also referred to as atrophic or areolar macular degeneration) is characterized by slower formation of vascular structures without classic leakage into surrounding tissue. Dry macular degeneration is the most common form of macular degeneration and does not typically manifest classical CNV. However, in some instances dry AMD may advance to wet AMD with accompanying CNV. Currently, there is no proven medical treatment for dry macular degeneration. The pattern of CNV is confirmed with either a fluorescein or indocyanine green angiogram dye study. Classic CNV appears as an initial lacy pattern of hyperfluorescence followed by a more irregular pattern as the dye progresses into the subretinal space. Occult CNV lacks this characteristic angiographic pattern, either due to the opacity of coexisting subretinal hemorrhage or by the tendency for epithelial cells to proliferate and partially or completely surround the new vessels. Lesions consisting only of classic CNV typically result in more severe visual loss than those made up of only occult CNV.

Macular drusen are spots of yellow-white, thickened, tissue deposits adjacent to the basement membrane of the retinal pigment epithelium. Drusen are normally asymptomatic, but can cause minimal visual impairment and are purported to be indicative of increased risk for development of neovascularization. Laser treatment of macular drusen is under study as a preventive therapy to decrease development of subsequent neovascularization.

Two other pathological conditions that may result in CNV are pathologic myopia and presumed ocular histoplasmosis syndrome. Pathologic myopia is a rare form of nearsightedness in which the back portion of the eyeball continues to grow after reaching normal adult size. It is the leading cause of vision loss in people under the age of fifty. Presumed ocular histoplasmosis syndrome (POHS) is an infection of the eye caused by the spores of the *Histoplasma capsulatum* fungus, which is indigenous to the Ohio and Mississippi River valleys. It is also associated with proximity to chicken houses and bat caves. The fungus generally remains dormant, but tends to display more active growth and proliferation when the patient is immuno-compromised. POHS can cause scarring of the eyes, with vision loss occurring secondary to the development of choroidal neovascularization.

Laser Treatment Options for CNV:

1. With argon or diode focal laser treatment, a small contact lens is placed on the surface of the patient's eye. Laser light is directed to the site of the choroidal neovascular tissue. The heat generated by the laser's beam is intended to coagulate the blood vessel membranes within the neovascular tissue. Vision in the area of treatment is permanently affected, and recurrence is likely. However, this is often a procedure of choice in patients where the choroidal neovascular tissue is located outside the center of the macula. Focal laser treatment is used in the clinical, outpatient setting. Therapy is intended to minimize loss of vision and/or reduce the size of the "blind spot" produced by the CNV. Even with treatment, vision may continue to decline and re-treatment is often necessary.
2. Transpupillary thermotherapy (TTT) uses infrared laser light administered by a modified diode laser to photocoagulate CNV tissue in patients with wet AMD. Unlike visible light laser photocoagulation treatment, the lower light intensity of the infrared laser enables light administration over a broader area, for a longer period of time, and with less temperature elevation. Intended results are the formation of blood clots that seal the leaking vessels and preservation of the macula and central vision by preventing further growth and leakage of new vessels. This gentler heating of the choroidal lesion is purported to limit damage to overlying retinal pigment epithelium, and as such is suggested as an alternative to standard focal laser photocoagulation. Since TTT is purported for treatment of CNV lesions near the macula, TTT is also suggested as an alternative to photodynamic therapy as it does not require the administration of a photosensitizing drug. Some patients require more than one treatment. TTT is administered in the clinical, outpatient setting.
3. Photocoagulation of macular drusen has been purported to improve vision and to prevent development of neovascular "wet" macular degeneration. Standard argon and infrared lasers have been used in an attempt to prevent transformation of macular drusen into choroidal neovascular tissue. Treatment is administered in the clinical, outpatient setting.

FDA Approval

Ophthalmic lasers are regulated by the FDA as Class II devices and are approved under the Premarket Notification 510(k) process. There are many ophthalmic lasers that have received FDA 510(k) approval. Three lasers have received approval for the specified indication of transpupillary thermotherapy; they are:

1. IRIS Medical® OcuLight® SLx (IREDIEX Corp., Mountainview CA)
2. Nidex DC-3000 (Nidek, Inc., Fremont CA)
3. GaAIAs diode laser (Candela USA, Wayland MA).

Argon and infrared lasers used for photocoagulation of macular drusen are those that are used for standard photocoagulation of extrafoveal choroidal neovascularization. Therefore, the treatment of macular drusen is an additional indication for previously FDA approved lasers.

Prior Authorization

Prior authorization is not required. However, services with specific coverage criteria may be reviewed retrospectively to determine if criteria are being met. Retrospective denial may result if criteria are not met.

Coding Considerations

Use the current applicable CPT/HCPCS code(s). The following codes are included below for informational purposes only, and are subject to change without notice. Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement.

CPT Codes:

- 67220 - Destruction of localized lesion of choroid (eg, choroidal neovascularization); photocoagulation (eg, laser), 1 or more sessions
- 67299 - Unlisted procedure, posterior segment

HCPC Code:

- G0186 - Destruction of localized lesion of choroid (for example, choroidal neovascularization); photocoagulation, feeder vessel technique (one or more sessions)

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3/27/2007
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