Medical Policy
Intraocular Radiation Therapy for Age-Related Macular Degeneration

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Policy Number: 610
BCBSA Reference Number: 9.03.20

Related Policies
- Photodynamic Therapy for Choroidal Neovascularization, #599
- Transpupillary Thermotherapy for Treatment of Choroidal Neovascularization, #600
- Intravitreal Angiogenesis Inhibitors for Choroidal Vascular Conditions, #343

Policy
Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity
Medicare HMO BlueSM and Medicare PPO BlueSM Members

Intraocular placement of a radiation source for the treatment of choroidal neovascularization is INVESTIGATIONAL.

Intraocular proton beam therapy for the treatment of choroidal neovascularization is INVESTIGATIONAL.

Stereotactic radiation therapy for the treatment of choroidal neovascularization is INVESTIGATIONAL.

Prior Authorization Information
Pre-service approval is required for all inpatient services for all products.
See below for situations where prior authorization may be required or may not be required for outpatient services.
Yes indicates that prior authorization is required.
No indicates that prior authorization is not required.

<table>
<thead>
<tr>
<th>Outpatient</th>
<th>Inpatient</th>
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<tbody>
<tr>
<td>Commercial Managed Care (HMO and POS)</td>
<td>This is not a covered service.</td>
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<tr>
<td>Commercial PPO and Indemnity</td>
<td>This is not a covered service.</td>
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<tr>
<td>Medicare HMO BlueSM</td>
<td>This is not a covered service.</td>
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<tr>
<td>Medicare PPO BlueSM</td>
<td>This is not a covered service.</td>
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</table>
CPT Codes / HCPCS Codes / ICD-9 Codes
The following codes are included below for informational purposes. Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement. Please refer to the member’s contract benefits in effect at the time of service to determine coverage or non-coverage as it applies to an individual member.

Providers should report all services using the most up-to-date industry-standard procedure, revenue, and diagnosis codes, including modifiers where applicable.

CPT Codes

<table>
<thead>
<tr>
<th>CPT codes:</th>
<th>Code Description</th>
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<tr>
<td>0190T</td>
<td>Placement of intraocular radiation source applicator (list separately in addition to the primary procedure)</td>
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Description
Epiretinal radiation describes the intraocular administration of radiation to the choroidal vascular bed of the retina to treat age-related macular degeneration (AMD).

AMD is characterized in its earliest stages by minimal visual impairment and the presence of large drusen and other pigmentary abnormalities on ophthalmoscopic examination. Two distinctively different forms of degeneration may be observed. The first, called the atrophic or areolar or dry form, evolves slowly. Atrophic AMD is the most common form of degeneration and may be a precursor of the more visually impairing exudative neovascular form, also referred to as disciform or wet AMD. The wet form is distinguished from the atrophic form by the development of choroidal neovascularization (CNV) and serous or hemorrhagic detachment of the retinal pigment epithelium. Risk of developing severe irreversible loss of vision is greatly increased by the presence of CNV.

The NeoVista Epi-Rad90™ Ophthalmic System has been developed to treat CNV by focal delivery of radiation to a subfoveal choroidal neovascular lesion. Using a standard vitrectomy procedure, the cannula tip of a handheld (pipette-like) surgical device is inserted into the vitreous cavity and positioned under visual guidance over the target lesion. The radiation source (strontium-90) is advanced down the cannula until it reaches the tip, which is then held in place over the lesion for a “prescribed” time to deliver focused radiation. The system is designed to deliver a one-time peak dose of beta particle energy (24 Gy) for a target area 3 mm in depth and up to 5.4 mm in diameter. This is believed to be below the dose that is toxic to the retina and optic nerve, and radiation exposure outside of the target area is expected to be minimal.

Other available therapeutic options for AMD not addressed in this policy include photodynamic therapy and vascular endothelial growth factor (VEGF) antagonists or angiostatics. These may be administered alone or in combination. Angiostatic agents target various points in the pathway leading to new blood vessel formation (angiogenesis): messenger RNA, VEGFs, and endothelial cell proliferation; migration; and proteolysis. Pegaptanib (Macugen®, Eyetech and Pfizer), ranibizumab (Lucentis™, Genentech), and aflibercept (Eylea™, Regeneron Pharmaceuticals) are approved by the U.S. Food and Drug Administration (FDA) for use in AMD. Bevacizumab (Avastin®, Genentech) has been used off label to treat AMD.

For those whose visual losses impair their ability to perform daily tasks, low-vision rehabilitative services offer resources to compensate for deficits.

Summary
Intraocular radiation describes the administration of radiation to the choroidal vascular bed of the retina to treat age-related macular degeneration (AMD). No intraocular radiation devices have been approved by the Food and Drug Administration for the treatment of AMD. A randomized controlled trial has been published that evaluated epiretinal radiation therapy with the EPI-RAD90™. This treatment did not attain noninferiority for visual outcomes and was associated with a high proportion of adverse events.
A randomized sham-controlled trial of stereotactic radiotherapy (SRT) in patients with neovascular AMD found a reduction in the number of ranibizumab treatments over the first 12 months, but no significant differences compared with control in changes in visual acuity. Longer term follow-up is needed to evaluate safety and to determine whether the modest benefit of SRT extends beyond the first 12 months. Due to the limited evidence base and lack of regulatory approval, intraocular radiation for the treatment of AMD is considered investigational.

**Policy History**

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<th>Action</th>
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**Information Pertaining to All Blue Cross Blue Shield Medical Policies**

Click on any of the following terms to access the relevant information:
- Medical Policy Terms of Use
- Managed Care Guidelines
- Indemnity/PPO Guidelines
- Clinical Exception Process
- Medical Technology Assessment Guidelines

**References**


