Medical Policy
Photodynamic Therapy for Choroidal Neovascularization

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Policy Number: 599
BCBSA Reference Number: 9.03.08

Related Policies
- Transpupillary Thermotherapy for Treatment of Choroidal Neovascularization, #600
- Epiretinal Radiation Therapy for Age-Related Macular Degeneration, #610
- Intravitreal Angiogenesis Inhibitors for Choroidal Vascular Conditions, #343

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

Photodynamic therapy (PDT) may be **MEDICALLY NECESSARY** as monotherapy for the treatment of:
- Choroidal neovascularization (CNV) associated with age-related macular degeneration (AMD), or
- Chronic central serous chorioretinopathy, or
- Choroidal hemangioma, or
- Pathologic myopia, or
- Presumed ocular histoplasmosis.

Photodynamic therapy as monotherapy for other ophthalmologic disorders is **INVESTIGATIONAL**.

Photodynamic therapy is **INVESTIGATIONAL**, when used in combination with one or more of the anti-vascular endothelial growth factor therapies (anti-VEGF), i.e., pegaptanib (Macugen™), ranibizumab (Lucentis®), bevacizumab (Avastin®), aflibercept (Eylea™) as a treatment of:
- CNV associated with age-related macular degeneration,
- Chronic central serous chorioretinopathy,
- Choroidal hemangioma,
- Pathologic myopia,
- Presumed ocular histoplasmosis, or
- For other ophthalmologic disorders

Medicare HMO Blue℠ and Medicare PPO Blue℠ Members

Ocular Photodynamic Therapy (OPT) is used in the treatment of ophthalmologic diseases. OPT is only covered when used in conjunction with verteporfin (see section 80.3, “Photosensitive Drugs”).
• Classic Subfoveal Choroidal Neovascular (CNV) Lesions - OPT is covered with a diagnosis of neovascular age-related macular degeneration (AMD) with predominately classic subfoveal choroidal neovascular (CNV) lesions (where the area of classic CNV occupies ≥ 50 percent of the area of the entire lesion) at the initial visit as determined by a fluorescein angiogram. Subsequent follow-up visits will require either an optical coherence tomography (OCT) or a fluorescein angiogram (FA) to access treatment response. There are no requirements regarding visual acuity, lesion size, and number of re-treatments.

• Occult Subfoveal Choroidal Neovascular (CNV) Lesions - OPT is noncovered for patients with a diagnosis of age-related macular degeneration (AMD) with occult and no classic CNV lesions.

• Other Conditions - Use of OPT with verteporfin for other types of AMD (e.g., patients with minimally classic CNV lesions, atrophic, or dry AMD) is noncovered. OPT with verteporfin for other ocular indications such as pathologic myopia or presumed ocular histoplasmosis syndrome, is eligible for coverage through individual contractor discretion.

National Coverage Determination (NCD) for Photodynamic Therapy (OPT) (80.2)

Prior Authorization Information
Commercial Members: Managed Care (HMO and POS)
Prior authorization is NOT required.

Commercial Members: PPO, and Indemnity
Prior authorization is NOT required.

Medicare Members: HMO BlueSM
Prior authorization is NOT required.

Medicare Members: PPO BlueSM
Prior authorization is NOT required.

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. A draft of future ICD-10 Coding related to this document, as it might look today, is included below for your reference.

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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</thead>
<tbody>
<tr>
<td>67221</td>
<td>Destruction of localized lesions of choroid (e.g., choroidal neovascularization); photodynamic therapy (includes intravenous infusion)</td>
</tr>
<tr>
<td>67225</td>
<td>Destruction of localized lesions of choroid (e.g., choroidal neovascularization); photodynamic therapy, second eye, at single session (list separately in addition to code</td>
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</tbody>
</table>

ICD-9 Diagnosis Codes

<table>
<thead>
<tr>
<th>ICD-9-CM diagnosis codes</th>
<th>Code Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>115.92</td>
<td>Histoplasmosis, unspecified, retinitis</td>
</tr>
<tr>
<td>ICD-10-CM Diagnosis codes:</td>
<td>Code Description</td>
</tr>
<tr>
<td>---------------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>B39.9</td>
<td>Histoplasmosis, unspecified</td>
</tr>
<tr>
<td>D18.09</td>
<td>Hemangioma of other sites</td>
</tr>
<tr>
<td>H32</td>
<td>Chorioretinal disorders in diseases classified elsewhere</td>
</tr>
<tr>
<td>H35.051</td>
<td>Retinal neovascularization, unspecified, right eye</td>
</tr>
<tr>
<td>H35.052</td>
<td>Retinal neovascularization, unspecified, left eye</td>
</tr>
<tr>
<td>H35.053</td>
<td>Retinal neovascularization, unspecified, bilateral</td>
</tr>
<tr>
<td>H35.059</td>
<td>Retinal neovascularization, unspecified, unspecified eye</td>
</tr>
<tr>
<td>H35.30</td>
<td>Unspecified macular degeneration</td>
</tr>
<tr>
<td>H35.31</td>
<td>Nonexudative age-related macular degeneration</td>
</tr>
<tr>
<td>H35.32</td>
<td>Exudative age-related macular degeneration</td>
</tr>
<tr>
<td>H35.711</td>
<td>Central serous chorioretinopathy, right eye</td>
</tr>
<tr>
<td>H35.712</td>
<td>Central serous chorioretinopathy, left eye</td>
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<tr>
<td>H35.713</td>
<td>Central serous chorioretinopathy, bilateral</td>
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<tr>
<td>H35.719</td>
<td>Central serous chorioretinopathy, unspecified eye</td>
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<tr>
<td>H44.20</td>
<td>Degenerative myopia, unspecified eye</td>
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<td>H44.21</td>
<td>Degenerative myopia, right eye</td>
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<tr>
<td>H44.22</td>
<td>Degenerative myopia, left eye</td>
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<tr>
<td>H44.23</td>
<td>Degenerative myopia, bilateral</td>
</tr>
</tbody>
</table>

**Description**

Photodynamic therapy (PDT) is a treatment modality designed to selectively occlude ocular choroidal neovascular tissue. The therapy is a 2-step process, consisting initially of an injection of the photosensitizer verteporfin, followed 15 minutes later by laser treatment to the targeted sites of neovascularization in the retina. The laser treatment selectively damages the vascular endothelium. Patients may be re-treated if leakage from choroidal neovascularization (CNV) persists.

Severe vision loss can occur with ocular neovascularization, the growth of abnormal blood vessels in the retina or choroid. Neovascularization occurs in a number of ocular diseases, including age-related macular degeneration (AMD). Available therapeutic options for choroidal neovascularization include photodynamic therapy (PDT), antioxidants, thermal laser photocoagulation, corticosteroids, and vascular endothelial growth factor (VEGF) antagonists or angiostatics. The safety and efficacy of each treatment depends on the form and location of the neovascularization. For those whose visual losses impair their ability to perform daily tasks, low-vision rehabilitative services offer resources to compensate for deficits.

Combining PDT with angiostatic agents, either concurrently or sequentially, has a biological basis and is under active investigation. Angiostatic agents block some stage in the pathway leading to new blood vessel formation (angiogenesis). Drugs currently under study target various parts of the angiogenic pathway: messenger RNA; vascular endothelial growth factors (VEGFs); endothelial cell proliferation, migration, and proteolysis. The angiostatic agents being studied in trials include pegaptanib, ranibizumab, bevacizumab, anecortave acetate, squalamine, vatalanib, and triamcinolone acetonide. In contrast to
palliative treatments for CNV (e.g., thermal photocoagulation and photodynamic therapy), they are potentially disease modifying by inhibiting the development of newly formed vessels.

**Summary**
The available published literature, together with clinical input, supports the use of PDT as monotherapy for the treatment of CNV associated with AMD, chronic central serous chorioretinopathy, choroidal hemangioma, pathologic myopia, or presumed ocular histoplasmosis. Therefore, PDT may be considered medically necessary for these indications. Current evidence does not support the use of PDT in combination with anti-VEGF therapies or corticosteroids for the treatment of CNV associated with AMD or other ophthalmologic disorders.

Based on numerous case reports and case series, PDT is being used in an attempt to decrease CNV of many different etiologies. For example, PDT has been reported to slow down, but not prevent or reverse, the progression of disease of CNV associated with polypoidal choroidal vasculopathy, angioid streaks, and inflammatory chorioretinal disease. There is insufficient evidence to support the use of PDT as monotherapy or in combination therapy for these other ophthalmologic disorders. As a result, PDT is considered investigational for ophthalmologic disorders other than AMD, chronic central serous chorioretinopathy, choroidal hemangioma, pathologic myopia, or presumed ocular histoplasmosis.

**Policy History**

<table>
<thead>
<tr>
<th>Date</th>
<th>Action</th>
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<tbody>
<tr>
<td>9/2014</td>
<td>New references added from BCBSA National medical policy.</td>
</tr>
<tr>
<td>6/2014</td>
<td>Updated Coding section with ICD10 procedure and diagnosis codes, effective 10/2015.</td>
</tr>
<tr>
<td>12/2013</td>
<td>Removed ICD-9 diagnosis codes 363.43 and 367.1 as they do not meet the intent of the policy and added 228.09 and 362.41 as they do meet the intent of the policy</td>
</tr>
<tr>
<td>4/2010</td>
<td>BCBSA National medical policy review. No changes to policy statements.</td>
</tr>
<tr>
<td>12/2009</td>
<td>BCBSA National medical policy review. No changes to policy statements.</td>
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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
9. Rubin GS, Bressler NM. Effects of verteporfin therapy on contrast on sensitivity: Results From the Treatment of Age-Related Macular Degeneration With Photodynamic Therapy (TAP) investigation-TAP report No 4. Retina 2002; 22(5):536-44.