Medical Coverage Policy | Transpupillary Thermotherapy for Treatment of Choroidal Neovascularization

EFFECTIVE DATE: 02|17|2009
POLICY LAST UPDATED: 04|02|2020

OVERVIEW
This policy documents the coverage determination for transpupillary thermotherapy (TTT) as it relates to the treatment of choroidal neovascularization (CNV) only. Transpupillary thermotherapy is a technique in which low-level heat is delivered through the pupil using a modified diode laser. TTT is designed to gently heat subfoveal choroidal lesions while limiting damage to the overlying retinal pigment epithelium.

MEDICAL CRITERIA
None

PRIOR AUTHORIZATION
Not applicable

POLICY STATEMENT
BlueCHiP for Medicare
Transpupillary thermotherapy for the treatment of choroidal neovascularization is not covered as the clinical literature does not support its use.

Commercial Products
Transpupillary thermotherapy for the treatment of choroidal neovascularization is not medically necessary as the clinical literature does not support its use.

COVERAGE
Benefits may vary between groups/contracts. Please refer to the appropriate Evidence of Coverage or Subscriber Agreement for the applicable not medically necessary/not covered benefits/coverage.

BACKGROUND
Choroidal neovascularization is a common cause of adult-onset blindness, most commonly associated with age-related macular degeneration (AMD). In its earliest stages, AMD is characterized by minimal visual impairment and the presence of large drusen and other pigmentary abnormalities on ophthalmoscopic examination. As AMD progresses, 2 distinctively different forms of degeneration may be observed. The first, called the atrophic, areolar or dry form, evolves slowly. Atrophic AMD is the most common form of degeneration and is often a precursor of the second form, the more devastating exudative neovascular form, also referred to as disciform or wet degeneration. The wet form is distinguished from the atrophic form by serous or hemorrhagic detachment of the retinal pigment epithelium and the development of CNV, sometimes called neovascular membranes. Risk of developing severe irreversible loss of vision is greatly increased by the presence of CNV.

The pattern of CNV, as revealed by fluorescein or indocyanine angiography, is further categorized as classic or occult. For example, classic CNV appears as an initial lacy pattern of hyperfluorescence followed by more irregular patterns as the dye leaks into the subretinal space. Occult CNV lacks the characteristic angiographic pattern, either due to the opacity of coexisting subretinal hemorrhage or, especially in CNV associated with AMD, by a tendency for epithelial cells to proliferate and partially or completely surround the new vessels. Interestingly, lesions consisting only of classic CNV carry a worse visual prognosis than those composed of only occult CNV, suggesting that the proliferative response that obscures new vessels may also favorably alter the clinical course of AMD.

There is ongoing research interest in the use of TTT to treat subfoveal choroidal neovascularization with an "occult" angiographic pattern. TTT is a technique in which heat is delivered to the choroid and retinal pigment epithelium through the pupil using a modified diode laser. This laser technique contrasts with the laser used in standard photocoagulation therapy in that TTT uses a lower power laser for more prolonged periods of time and is designed to gently heat the choroidal lesion, thus limiting damage to the overlying retinal pigment epithelium.

Transpupillary thermotherapy is a technique in which low-level heat is delivered through the pupil using a modified diode laser. TTT is designed to gently heat subfoveal choroidal lesions while limiting damage to the overlying retinal pigment epithelium. Evidence on TTT is limited. The available studies comparing TTT with sham have not shown a benefit of this procedure. Although trials comparing TTT to photodynamic therapy show similar outcomes for the 2 treatments, there may be an increase in adverse events with TTT. TTT has not been compared with angiogenesis inhibitors. Evidence is insufficient to determine whether TTT is as beneficial as the established alternative; this procedure is considered not medically necessary.

CODING

BlueCHiP for Medicare and Commercial Products

There is no specific code for this service. To report, use the unlisted procedure, posterior segment: 67299. It is incorrect to report this service with CPT code 67220.

RELATED POLICIES

None

PUBLISHED

Provider Update, June 2020
Provider Update, January 2020
Provider Update, January 2019
Provider Update, September 2017
Provider Update, January 2017

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