

Medical Coverage Policy



**Blue Cross
Blue Shield**
of Rhode Island

Anterior Eye Segment Optical Imaging

Device/Equipment Drug Medical Surgery Test Other

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| Effective Date: | 2/17/2009 | Policy Last Updated: | 02/07/2012 |
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Prospective review is recommended/required. Please check the member agreement for preauthorization guidelines.

Prospective review is not required.

Note: This policy relates only to the anterior eye segment and not the posterior segment which is a covered service.

Description:

Optical coherence tomography (OCT) is a non-invasive method that creates an image of light reflected from the ocular structures. In this technique a reflected light beam interacts with a reference light beam. The coherent (positive) interference between the two beams (reflected and reference) is measured by an interferometer, allowing construction of an image of the ocular structures. This method allows cross-sectional imaging at a resolution of 6 to 25 microns. The Stratus OCT™ (Carl Zeiss Meditec), which utilizes a 0.8 micron wavelength light source, was designed for evaluating the optic nerve head, retinal nerve fiber layer and retinal thickness. The Zeiss Visante OCT™ uses a 1.3 micron wavelength light source and is designed specifically for imaging the anterior eye segment. Light of this wavelength penetrates the sclera, allowing high-resolution, cross-sectional imaging of the anterior chamber angle and ciliary body. The light is, however, typically blocked by pigment, preventing exploration behind the iris. Ultrahigh resolution OCT can achieve a spatial resolution of 1.3 microns, allowing imaging and measurement of corneal layers.

The Visante OCT received marketing clearance through the U.S. Food and Drug Administration (FDA) 510(k) process in 2005, listing the Stratus OCT and Orbscan™ II as predicate devices. The 510(k) summary describes the Visante OCT as “a non-contact, high resolution tomographic and biomicroscopic device indicated for the in vivo imaging and measurement of ocular structures in the anterior segment, such as corneal and LASIK flap thickness.”

An early application of OCT technology was the evaluation of the cornea before and after refractive surgery. Since this is a non-invasive procedure that can be conducted by a technician, it has been proposed that this device may provide a rapid diagnostic and screening tool for the detection of angle closure in glaucoma. Also being investigated is the possibility that the 0.8 micron wavelength Stratus OCT, which is already available in a number of eye departments, may provide sufficient detail for routine clinical assessment of the anterior chamber angle in glaucoma patients.

Ideally, a diagnostic test would be evaluated based on its technical performance, diagnostic performance (sensitivity and specificity), and clinical validity. Current literature consists primarily

of assessments of qualitative and quantitative imaging and detection capabilities. Technically, the Visante OCT has the ability to create high-resolution images of the anterior eye segment. Studies indicate that the Visante OCT detects more eyes with narrow or closed angles than gonioscopy, showing high sensitivity and low specificity in comparison with the reference standard. However, if the reference standard is flawed (e.g., does not detect all cases), the information provided by sensitivity and specificity is limited. Evaluation of the diagnostic performance of the Visante OCT depends, therefore, on demonstration of an improvement in clinical outcomes. Although the resolution of the images and the ease of use might be considered advantageous, evidence is insufficient to determine whether use of OCT can improve detection and management of patients at risk of developing primary angle-closure glaucoma. Given the number of questions regarding the impact of this new technology on health outcomes, this procedure is considered not medically necessary.

Medical Criteria:

Not applicable.

Policy:

Anterior segment optical coherence tomography is medically necessary for BlueCHIP for Medicare* and considered not medically necessary for all other BCBSRI products as there is inadequate peer reviewed data to support its use.

***NOTE:** Medicare policy is developed separately from BCBSRI policy. Medicare policy incorporates consideration of governmental regulations from CMS (Centers for Medicare and Medicaid Services), such as national coverage determinations or local coverage determinations. In addition to benefit differences, CMS may reach different conclusions regarding the scientific evidence than does BCBSRI. Medicare and BCBSRI policies may differ. However, BlueCHIP for Medicare members must be offered, at least, the same services as Medicare offers.

Coverage:

Benefits may vary between groups/contracts. Please refer to the appropriate Evidence of Coverage or Subscriber Agreement for applicable "Services Not Medically Necessary."

Coding:

The following code is **medically necessary for BlueCHIP for Medicare** when accompanied by one of the ICD-9-CM diagnosis codes listed below, and **not medically necessary for all BCBSRI products**.

92132

The following ICD-9-CM diagnoses codes are required for Medicare members and should be used in conjunction with code 92132:

- 190.0 malignant neoplasm of eyeball except conjunctiva cornea retina and choroid
- 190.3 malignant neoplasm of conjunctiva
- 190.4 malignant neoplasm of cornea
- 190.6 malignant neoplasm of choroid
- 190.8 malignant neoplasm of other specified sites of eye
- 224.0 benign neoplasm of eyeball except conjunctiva cornea retina and choroid
- 224.3 benign neoplasm of conjunctiva
- 224.4 benign neoplasm of cornea
- 224.6 benign neoplasm of choroid

224.8 benign neoplasm of other specified parts of eye
360.51 foreign body magnetic in anterior chamber of eye
360.61 foreign body in anterior chamber
364.51 essential or progressive iris atrophy
364.52 iridoschisis
364.53 pigmentary iris degeneration
364.54 degeneration of pupillary margin
364.55 miotic cysts of pupillary margin
364.56 degenerative changes of chamber angle
364.57 degenerative changes of ciliary body
364.59 other iris atrophy
364.60 idiopathic cysts of iris and ciliary body
364.61 implantation cysts of iris and ciliary body
364.62 exudative cysts of iris or anterior chamber
364.63 primary cyst of pars plana
364.64 exudative cyst of pars plana
364.70 adhesions of iris unspecified
364.71 posterior synechiae of iris
364.72 anterior synechiae of iris
364.73 goniosynechiae
364.74 adhesions and disruptions of pupillary membranes
364.75 pupillary abnormalities
364.76 iridodialysis
364.77 recession of chamber angle of eye
364.81 floppy iris syndrome
364.82 plateau iris syndrome
364.89 other disorders of iris and ciliary body
365.02 anatomical narrow angle borderline glaucoma
365.20 - 365.89 primary angle-closure glaucoma unspecified - other specified glaucoma
366.16 senile nuclear sclerosis
370.00 - 370.07 corneal ulcer unspecified - mooren's ulcer
371.00 - 371.05 corneal opacity unspecified - phthisical cornea
371.20 - 371.24 corneal edema unspecified - corneal edema due to wearing of contact lenses
371.50 hereditary corneal dystrophy unspecified
371.57 endothelial corneal dystrophy
371.71 corneal ectasia
371.72 descemetocoele
371.73 corneal staphyloma
372.40 - 372.45 pterygium unspecified - recurrent pterygium
379.31 aphakia
379.32 subluxation of lens
379.33 anterior dislocation of lens
379.39 other disorders of lens
996.51 mechanical complication of prosthetic corneal graft
996.53 mechanical complication of prosthetic ocular lens prosthesis
996.69 infection and inflammatory reaction due to other internal prosthetic device implant and graft

Also Known As:

Optical Coherence Tomography (OCT)

Related Topics:

Not applicable.

Published:

Provider Update, April 2009

Provider Update, May 2010

Provider Update, May 2011

Provider Update, April 2012

References:

Centers for Medicare and Medicaid Services. Local Coverage Determination (LCD) for Scanning Computerized Ophthalmic Diagnostic Imaging (SCODI) (L30266). Accessed 01/09/2012

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