Medical Coverage Policy | Anterior Eye Segment Optical Imaging

EFFECTIVE DATE: 02|17|2009
POLICY LAST UPDATED: 04|15|2014

OVERVIEW

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

Optical coherence tomography (OCT) is a high resolution method of imaging the ocular structures. OCT for the anterior eye segment is being evaluated as a non-invasive diagnostic and screening tool for the detection of angle closure glaucoma, to assess corneal thickness and opacity, evaluate pre-surgical and postsurgical anterior chamber anatomy, calculate intraocular lens power, guide laser-assisted cataract surgery, assess complications following surgical procedures, and to image intracorneal ring segments. It is also being studied in relation to pathologic processes such as dry eye syndrome, tumors, uveitis, and infections.

PRIOR AUTHORIZATION

Not applicable.

POLICY STATEMENT

BlueCHiP for Medicare

Anterior segment optical coherence tomography is medically necessary for BlueCHiP for Medicare.

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.

Commercial

Anterior segment optical coherence tomography is not medically necessary for Commercial products as there is inadequate peer reviewed data to support its use.

MEDICAL CRITERIA

Not applicable.

BACKGROUND

OCT is an 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 2 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 uses 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™ and AC Cornea OCT (Ophthalmic Technologies) use a 1.3-micron wavelength light source designed specifically for imaging the anterior eye segment. Light of this wavelength penetrates the sclera, allowing high-resolution cross-sectional imaging of the AC 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.

An early application of OCT technology was the evaluation of the cornea before and after refractive surgery. Because this is a noninvasive 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 glaucoma. In addition, the noncontact method eliminates patient discomfort and inadvertent compression of the globe. 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 AC angle in glaucoma patients. Add-on lens are also available for imaging the AS with OCT devices designed for posterior segment imaging.

In addition to the evaluation of AC angle, OCT is being evaluated to assess corneal thickness and opacity, evaluate presurgical and postsurgical AC anatomy, calculate intraocular lens power, guide laser-assisted cataract surgery, assess complications following surgical procedures (eg, blockage of glaucoma tubes, detachment of Descemet membrane, disrupted keratoprosthesiscornea interface), and to image intracorneal ring segments. It is also being studied in relation to pathologic processes such as dry eye syndrome, tumors, uveitis, and infections.

It is not currently possible to determine the frequency of false positive results with OCT, therefore it cannot be determined whether health outcomes are improved. Since the impact on health outcomes of AS OCT for angle closure glaucoma, as well as for other disorders of the anterior chamber, is not known, this procedure is considered not medically necessary.

Medicare considers anterior segment OCT to be reasonable and necessary for the following:

- Evaluate narrow angle, suspected narrow angle, mixed narrow and open angle glaucoma, and angle recession as all determined by gonioscopy
- Determine the proper intraocular lens for a patient who has had prior refractive surgery and now requires cataract extraction
- Evaluate Iris tumor
- Evaluate corneal edema or opacity that precludes visualization or study of the anterior chamber
- Calculate lens power for cataract patients who have undergone prior refractive surgery. (Reimbursement will only be made for the cataract codes as long as additional documentation is available in the patient record of the prior refractive procedure. Reimbursement will not be made in addition to A-scan or IOL master.)
- Evaluate and plan treatment for patients with diseases affecting the cornea, iris, lens and other anterior segment structures.

Provide additional information during the planning and follow-up for corneal, iris, cataract, glaucoma and other anterior segment surgeries.

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 and not medically necessary for Commercial products:**

92132

The following ICD-9 and ICD-10 diagnosis codes are required for Medicare members and should be used in conjunction with CPT code 92132:

ICD-9

Anterior Eye Segment Optical Imag

ICD-10

Anterior Eye Segment Optical Imag

RELATED POLICIES

Not applicable.

PUBLISHED

Provider Update	Jun 2014
Provider Update	Aug 2013
Provider Update	Apr 2012
Provider Update	May 2011
Provider Update	May 2010
Provider Update	Apr 2009

REFERENCES

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7. Garcia JP, Jr., Rosen RB. Anterior segment imaging: optical coherence tomography versus ultrasound biomicroscopy. Ophthalmic Surg Lasers Imaging 2008; 39(6):476-84.
8. Mansouri K, Sommerhalder J, Shaarawy T. Prospective comparison of ultrasound biomicroscopy and anterior segment optical coherence tomography for evaluation of anterior chamber dimensions in European eyes with primary angle closure. Eye (Lond) 2010; 24(2):233-9.

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