BlueCross BlueShield of North Carolina

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Corporate Medical Policy

Corneal Topography

File Name:	corneal_topography
Origination:	1/2007
Last CAP Review:	6/2011
Next CAP Review:	6/2012
Last Review:	6/2011

Description of Procedure or Service

Corneal topography describes measurements of the curvature of the cornea. An evaluation of corneal topography is necessary for the accurate diagnosis and follow-up of certain corneal disorders, such as keratoconus, difficult contact lens fits, and pre- and postoperative assessment of the cornea, most commonly after refractive surgery. Various techniques and instruments are available to measure corneal topography:

The keratometer (also referred to as an ophthalmometer), the most commonly used instrument, projects an illuminated image onto a central area in the cornea. By measuring the distance between a pair of reflected points in both of the cornea's two principal meridians, the keratometer can estimate the radius of curvature of two meridians. The fact that the keratometer can only estimate the corneal curvature over a small percentage of its surface, and that estimates are based on the frequently incorrect assumption that the cornea is spherical, are limitations of this technique.

The keratoscope is an instrument that reflects a series of concentric circular rings off the anterior corneal surface. Visual inspection of the shape and spacing of the concentric rings provides a qualitative assessment of topography. A photokeratoscope is a keratoscope equipped with a camera that can provide a permanent record of the corneal topography.

Computer-assisted photokeratoscopy is an alternative to keratometry or keratoscopy in measuring corneal curvature. This technique uses sophisticated image analysis programs to provide quantitative corneal topographic data. For example, computer-based programs can combine with keratoscopy to create graphic displays and high-resolution color-coded maps of the corneal surface.

******Note: This Medical Policy is complex and technical. For questions concerning the technical language and/or specific clinical indications for its use, please consult your physician.***

Policy

BCBSNC will not provide coverage for Computer-Assisted Corneal Topography because it is considered not medically necessary.

Benefits Application

This medical policy relates only to the services or supplies described herein. Please refer to the Member's Benefit Booklet for availability of benefits. Member's benefits may vary according to benefit design; therefore member benefit language should be reviewed before applying the terms of this medical policy.

Corneal Topography

When Corneal Topography is covered

Not Applicable

When Corneal Topography is not covered

Computer-assisted corneal topography is not covered. It is considered **not medically necessary** in detecting or monitoring diseases of the cornea.

Policy Guidelines

Assessing corneal topography has been done for many years and is a part of the standard ophthalmologic examination of some patients. However, there are multiple ways to evaluate/determine corneal topography.

The American Academy of Ophthalmology petitioned for an explicit CPT code for corneal topography on several occasions in the past. The CPT committee considered the procedure as part of the evaluation and management level of service or part of the general ophthalmology examination and no explicit CPT code was issued for corneal topography despite its use in practice. Effective January 1, 2007, however, a new code has been issued for computerized corneal topography.

Because the literature does not show improved outcomes from the computer-assisted approach, it is considered not medically necessary.

2007 Update

A search of the MEDLINE database, performed through September 2007, did not identify any studies that would alter the conclusions reached above. No studies show a clinical benefit of quantitative rather than qualitative evaluation of corneal topography.

A 1999 American Academy of Ophthalmology (AAO) Assessment indicates that this technology evolved from the need to measure corneal curvature and topography more comprehensively and accurately than keratometry and that corneal topography is used primarily for refractive surgery. The AAO indicates several other potential uses: 1) to evaluate and manage patients following penetrating keratoplasty, 2) planning astigmatic surgery; 3) to evaluate patients with unexplained visual loss and document visual complications; and 4) contact lens fitting. However, the AAO Assessment noted that data are lacking to support the use of objective measurements as opposed to subjective determinants (subjective refraction) of astigmatism. Current evidence remains insufficient to support improvement in clinical outcomes for conditions other than refractive surgery. Therefore, the policy statement is unchanged.

Billing/Coding/Physician Documentation Information

This policy may apply to the following codes. Inclusion of a code in this section does not guarantee that it will be reimbursed. For further information on reimbursement guidelines, please see Administrative Policies on the Blue Cross Blue Shield of North Carolina web site at www.bcbsnc.com. They are listed in the Category Search on the Medical Policy search page.

Applicable service codes: *92025*

Non-computer assisted corneal topography is considered part of the evaluation and management services of general ophthalmological services (CPT codes 92002–92014), and therefore this service should not be billed separately. There is no separate CPT code for this type of corneal topography.

BCBSNC may request medical records for determination of medical necessity. When medical records are requested, letters of support and/or explanation are often useful, but are not sufficient documentation unless all specific information needed to make a medical necessity determination is included.

Scientific Background and Reference Sources

BCBSA Medical Policy Reference Manual [Electronic Version]. 9.03.05, 10/10/06.

BCBSA Medical Policy Reference Manual [Electronic Version]. 9.03.05, 12/13/07

Specialty Matched Consultant Advisory Panel review-4/6/09

BCBSA Medical Policy Reference Manual [Electronic Version]. 9.03.05, 4/14/2011

Specialty Matched Consultant Advisory Panel - 6/2011

Policy Implementation/Update Information

1/29/07 Notification of new policy. Computer-Assisted Corneal Topography is not covered. It is considered investigational in detecting or monitoring diseases of the cornea and BCBSNC does not cover investigational services. Effective 3/31/07 HCPCS will delete code S0820, which has been replaced by CPT code 92025. Notification given 1/29/07. Effective date 4/9/07. (pmo)

4/27/09 Policy Guidelines updated. Reference sources added. No changes to criteria. (pmo)

6/22/10 Policy Number(s) removed (amw)

4/26/11 Under "When Not Covered" section: changed policy statement to Not Medically Necessary from Investigational for consistency with BCBSA and deleted the statement "Non-computer assisted corneal topography is considered part of the evaluation and management services of general ophthalmological services (CPT codes 92002–92014), and therefore this service should not be billed separately. There is no separate CPT code for this type of corneal topography" since this statement is already listed under the "Billing/Coding" section. Reference added. (lpr)

7/19/11 Specialty Matched Consultant Review panel meeting 6/29/2011. No changes in policy statement. Reference added. (lpr)