



MEDICAL POLICY

Date Reviewed: 02/25/00, 03/22/02, 3/26/04, 02/24/06, 04/20/07, 02/15/08, 01/23/09, 02/05/10, 01/14/11

Subject: Corneal Topography, Corneal Mapping, Keratography

Description: Corneal topography is a computer assisted diagnostic study used to create a map of the corneal surface as well as a cross-section profile of the cornea. The test is used for evaluation of any irregularities of the corneal surface and/or astigmatism.

Indications of Coverage:

Corneal topography is considered medically necessary for the evaluation of any of the following conditions:

Preoperative and postoperative evaluations for corneal transplant or re-transplant (for example, corneal scars, corneal opacities, corneal degeneration, corneal dystrophies, corneal deformities, previous corneal transplant surgery, acquired astigmatism, keratoconus (thinning of the cornea), keratitis (inflammation of the cornea), trauma).

Preoperative evaluation of irregular corneal curvature for intraocular lens power determination with cataract surgery.

Identification or evaluation of corneal disease/trauma causing irregular astigmatism (for example, corneal lesions, pterygium (abnormal growth of the conjunctiva), keratoconus, peripheral corneal degeneration, Mooren's ulcer, Terrien's degeneration, corneal edema, keratitis, corneal wounds, burns)

Preoperative evaluation prior to surgery for correction of surgically or trauma induced irregular astigmatism (for example, relaxing incision, wedge resection).

Limitations of Coverage:

Review contract and endorsements for exclusions and prior authorization or benefit requirements. **(Note: If there is an exclusion for refractive surgery (LASIK, radial keratotomy, etc), and the corneal topography is performed preparatory to refractive surgery, the corneal topography would also not be covered.)**

If used for a condition/diagnosis other than is listed in the Indications of Coverage, deny as experimental or investigative.

If used for a condition/diagnosis that is listed in the Indications of Coverage, but the criteria are not met, deny as not medically necessary.

Documentation Required:

Office notes

Test results

Rationale: Corneal topography has been shown to be effective for evaluating specific conditions of the cornea and may be beneficial in the diagnosis, monitoring, and treatment of particular visual conditions. The literature regarding the use of corneal topography is limited, but the American Academy of Ophthalmology (AAO) describes conditions where it has proven useful. The AAO notes that other indications for corneal topography need further study.

References: Corneal topography. American Academy of Ophthalmology. Ophthalmology. Aug 1999; 106(8): 1628-38.

Wisconsin Physicians Service Medicare Local Coverage Determination (LCD) for Computerized Corneal Topography (OPHTH-014). Effective date: 12/16/2010. Available at: www.wpsmedicare.com/part_b/policy/active/local/index.shtml. Accessed: 5 Jan 11.

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Approved by the Medical Director