

Policy: MP213

Section: Medical Benefit Policy

Subject: Computerized Corneal Topography

I. Policy: Computerized Corneal Topography

II. Purpose/Objective:

To provide a policy of coverage regarding Computerized Corneal Topography

III. Responsibility:

- A. Medical Directors
- B. Medical Management

IV. Required Definitions

1. Attachment – a supporting document that is developed and maintained by the policy writer or department requiring/authoring the policy.
2. Exhibit – a supporting document developed and maintained in a department other than the department requiring/authoring the policy.
3. Devised – the date the policy was implemented.
4. Revised – the date of every revision to the policy, including typographical and grammatical changes.
5. Reviewed – the date documenting the annual review if the policy has no revisions necessary.

V. Additional Definitions

Medical Necessity or Medically Necessary means Covered Services rendered by a Health Care Provider that the Plan determines are:

- a. appropriate for the symptoms and diagnosis or treatment of the Member's condition, illness, disease or injury;
- b. provided for the diagnosis, and the direct care and treatment of the Member's condition, illness disease or injury;
- c. in accordance with current standards of good medical treatment practiced by the general medical community.
- d. not primarily for the convenience of the Member, or the Member's Health Care Provider; and
- e. the most appropriate source or level of service that can safely be provided to the Member. When applied to hospitalization, this further means that the Member requires acute care as an inpatient due to the nature of the services rendered or the Member's condition, and the Member cannot receive safe or adequate care as an outpatient.

Medicaid Business Segment

Medical Necessity shall mean a service or benefit that is compensable under the Medical Assistance Program and if it meets any one of the following standards:

- (i) The service or benefit will, or is reasonably expected to, prevent the onset of an illness, condition or disability.
- (ii) The service or benefit will, or is reasonably expected to, reduce or ameliorate the physical, mental or development effects of an illness, condition, injury or disability.
- (iii) The service or benefit will assist the Member to achieve or maintain maximum functional capacity in performing daily activities, taking into account both the functional capacity of the Member and those functional capacities that are appropriate for members of the same age.

DESCRIPTION: Computerized Corneal Topography, also known as videokeratography and Computer- assisted Keratography, is a technique used for mapping the surface curvature of the cornea. The process utilizes a special instrument which projects a series of light rings on the cornea, creating a color-coded map of the corneal surface. Computer algorithms then compute the curvature of the cornea at each point.

INDICATIONS: Computerized Corneal Topography may be considered medically necessary for ANY of the following indications:

- Diagnosis and management of keratoconus, bullous keratopathy, corneal scarring, or corneal dystrophy;
- Complications post-corneal transplant
- Central corneal ulcer
- Post-operative management of penetrating keratoplasty or cataract surgery;
- pterygium and/or corneal ectasia

EXCLUSIONS:

If the Plan does **NOT** provide coverage for any surgery to correct the refractive error of the eye, then the use of Computerized Corneal Topography would **NOT** be covered for the routine pre-operative or post-operative evaluation of the cornea when associated with refractive surgeries (i.e. LASIK, radial Keratotomy).

There is insufficient evidence in the available published, peer-reviewed medical literature to support the use of Computerized Corneal Topography outside of the established indications listed above. Other uses of Computerized Corneal Topography are considered experimental, investigational or unproven and are **NOT COVERED**.

Medicaid Business Segment:

Any requests for services, that do not meet criteria set in the PARP, will be evaluated on a case by case basis.

Note: A complete description of the process by which a given technology or service is evaluated and determined to be experimental, investigational or unproven is outlined in MP 15 - Experimental Investigational or Unproven Services or Treatment.

CODING ASSOCIATED WITH: Computerized Corneal Topography

The following codes are included below for informational purposes and may not be all inclusive. Inclusion of a procedure or device code(s) does not constitute or imply coverage nor does it imply or guarantee provider reimbursement. Coverage is determined by the member specific benefit plan document and any applicable laws regarding coverage of specific services. Please note that per Medicare coverage rules, only specific CPT/HCPCS Codes may be covered for the Medicare Business Segment. Please consult the CMS website at www.cms.gov or the local Medicare Administrative Carrier (MAC) for more information on Medicare coverage and coding requirements.

92025 Computerized corneal topography, unilateral or bilateral, with interpretation and report

Current Procedural Terminology (CPT®) © American Medical Association: Chicago, IL

LINE OF BUSINESS:

Eligibility and contract specific benefits, limitations and/or exclusions will apply. Coverage statements found in the line of business specific benefit document will supersede this policy. For Medicare, applicable LCD's and NCD's will supercede this policy. For PA Medicaid Business segment, this policy applies as written.

REFERENCES:

Cairns G, McGhee CN. Orbscan computerized topography: attributes, applications, and limitations. J Cataract Refract Surg. 2005 Jan;31(1):205-20.

HAYES Medical Technology Directory™. Computerized Corneal Topography Systems. Lansdale, PA: HAYES, Inc.; ©2001 Winifred S. Hayes, Inc. 2001 Feb.

Karabatsas CH, Cook SD, Figueiredo FC, Diamond JP, Easty DL. Surgical control of late postkeratoplasty astigmatism with or without the use of computerized video keratography: a prospective, randomized study. Ophthalmology. 1998 Nov;105(11):1999-2006.

Pflugfelder SC, Liu Z, Feuer W, Verm A. Corneal thickness indices discriminate between keratoconus and contact lens-induced corneal thinning. *Ophthalmology*. 2002 Dec;109(12):2336-2342.
Corneal topography. *American Academy of Ophthalmology. Ophthalmology*. 1999 Aug;106(8):1628-38.

Caprioli J, Bronwyn Bateman J, Gaasterland DE, Mandelbaum S, Masket S, Matoba AY, et al. (Preferred Practice Patterns Committee, American Academy of Ophthalmology [AAO]). Comprehensive adult medical eye evaluation. Preferred Practice Pattern. 2000. Accessed Apr 6, 2005.

Choi JA, Kim MS. Progression of keratoconus by longitudinal assessment with corneal topography. *Invest Ophthalmol Vis Sci*. 2012;53(2):927-935

Visser N, Berendschot TT, Verbakel F, et al. Comparability and repeatability of corneal astigmatism measurements using different measurement technologies. *J Cataract Refract Surg*. 2012;38(10):1764-1770

Tummanapalli SS, Potluri H, Vaddavalli PK, Sangwan VS. Efficacy of axial and tangential corneal topography maps in detecting subclinical keratoconus. *J Cataract Refract Surg*. 2015;41(10):2205-2214.

Gokul A, Vellara HR, Patel DV. Advanced anterior segment imaging in keratoconus: A review. *Clin Exp Ophthalmol*. 2018;46(2):122-132

Venkateswaran, N., Galor, A., Wang, J. et al. Optical coherence tomography for ocular surface and corneal diseases: a review. *Eye and Vis* 2018; 5:13

Tran, A.Q., Venkateswaran, N., Galor, A. et al. Utility of high-resolution anterior segment optical coherence tomography in the diagnosis and management of sub-clinical ocular surface squamous neoplasia. *Eye and Vis* 2019; 6: 27

This policy will be revised as necessary and reviewed no less than annually.

Devised: 03/2008

Revised: 4/15, 4/18 refined criteria; 4/20(add indication)

Reviewed: 3/09, 3/10, 3/11, 3/12, 3/13, 3/14, 5/16, 4/17,4/19, 4/21, 4/22

Geisinger Health Plan may refer collectively to health care coverage sponsors Geisinger Health Plan, Geisinger Quality Options, Inc., and Geisinger Indemnity Insurance Company, unless otherwise noted. Geisinger Health Plan is part of Geisinger, an integrated health care delivery and coverage organization.

Coverage for experimental or investigational treatments, services and procedures is specifically excluded under the member's certificate with Geisinger Health Plan. Unproven services outside of an approved clinical trial are also specifically excluded under the member's certificate with Geisinger Health Plan. This policy does not expand coverage to services or items specifically excluded from coverage in the member's certificate with Geisinger Health Plan. Additional information can be found in MP015 Experimental, Investigational or Unproven Services.

Prior authorization and/or pre-certification requirements for services or items may apply. Pre-certification lists may be found in the member's contract specific benefit document. Prior authorization requirements can be found at <https://www.geisinger.org/health-plan/providers/ghp-clinical-policies>

Please be advised that the use of the logos, service marks or names of Geisinger Health Plan, Geisinger Quality Options, Inc. and Geisinger Indemnity Insurance Company on a marketing, press releases or any communication piece regarding the contents of this medical policy is strictly prohibited without the prior written consent of Geisinger Health Plan. Additionally, the above medical policy does not confer any endorsement by Geisinger Health Plan, Geisinger Quality Options, Inc. and Geisinger Indemnity Insurance Company regarding the medical service, medical device or medical lab test described under this medical policy.