Clinical Policy: Corneal Topography

Reference Number: OC.UM.CP.0018
Last Review Date: 11/2022

Coding Implications
Revision Log

See Important Reminder at the end of this policy for important regulatory and legal information.

Description

Corneal topography is a computer-assisted diagnostic technique in which a special instrument projects a series of light rings on the cornea thereby creating a color-coded map of the corneal surface as well as a cross-section profile. This test is used for the detection of subtle corneal surface irregularity and astigmatism. This policy describes the medical necessity criteria for corneal topography.

Policy/Criteria

I. It is the policy of health plans affiliated with Envolve Vision, Inc.® (Envolve) that corneal topography is **medically necessary** for the following indications:

A. Pre-operatively for evaluation of irregular astigmatism prior to cataract surgery;
B. Monocular diplopia;
C. Bullous keratopathy;
D. Post-surgical or post traumatic astigmatism, measuring at a minimum of 3.5 diopters;
E. Post-penetrating keratoplasty surgery;
F. Post-surgical or post traumatic irregular astigmatism;
G. Corneal dystrophy;
H. Complications of transplanted cornea;
I. Post traumatic corneal scarring;
J. Keratoconus;
K. Pterygium and/or corneal ectasia that cause visual impairment.

II. It is the policy of health plans affiliated with Envolve that the following conditions do not meet medical necessity criteria:

A. Routine contact lens management;
B. Evaluation for elective refractive surgery;
C. Repeat testing is only indicated if a change of vision is reported in connection with one of the above listed conditions;
D. Services performed for screening purposes or in the absence of associated signs, symptoms, illness or injury.

Background

This procedure is also known as computer-assisted keratography or videokeratography. A computer images and analyzes the shape of the patient's cornea. The patient is placed facing a light-filled bowl shape. A digital camera resides at the base of the bowl, and the light pattern reflected from the bowl to the cornea is recorded by the camera. The topology of the cornea is then analyzed by the computer software, and reports are produced for physician evaluation.

Signs of corneal ectasia can include, but are not limited to: inferior steepening, superior flattening, skewing of radial axes on power topographic maps, abnormal islands of elevation

anteriorly and/or posteriorly on tomography and decentered or abnormal corneal thinning or rate of change of corneal thickening from the center to the periphery.

Coding Implications

This clinical policy references Current Procedural Terminology (CPT®). CPT® is a registered trademark of the American Medical Association. All CPT codes and descriptions are copyrighted 2020, American Medical Association. All rights reserved. CPT codes and CPT descriptions are from the current manuals and those included herein are not intended to be all-inclusive and are included for informational purposes only. Codes referenced in this clinical policy are for informational purposes only. Inclusion or exclusion of any codes does not guarantee coverage. Providers should reference the most up-to-date sources of professional coding guidance prior to the submission of claims for reimbursement of covered services.

CPT® Codes	Description
92025	Computerized corneal topography, unilateral or bilateral, with interpretation and report

ICD-10-CM Diagnosis Codes that Support Coverage Criteria
Indications for corneal topography

ICD-10-CM Code	Description
H11.011	Amyloid pterygium of right eye
H11.012	Amyloid pterygium of left eye
H11.013	Amyloid pterygium of eye, bilateral
H11.021	Central pterygium of right eye
H11.022	Central pterygium of left eye
H11.023	Central pterygium of eye, bilateral
H11.031	Double pterygium of right eye
H11.032	Double pterygium of left eye
H11.033	Double pterygium of eye, bilateral
H11.041	Peripheral pterygium, stationary, right eye
H11.042	Peripheral pterygium, stationary, left eye
H11.043	Peripheral pterygium, stationary, bilateral
H11.051	Peripheral pterygium, progressive, right eye
H11.052	Peripheral pterygium, progressive, left eye
H11.053	Peripheral pterygium, progressive, bilateral
H11.061	Recurrent pterygium of right eye
H11.062	Recurrent pterygium of left eye
H11.063	Recurrent pterygium of eye, bilateral
H11.141	Conjunctival xerosis right eye
H11.142	Conjunctival xerosis left eye
H11.143	Conjunctival xerosis bilateral
H18.11	Bullous keratopathy, right eye
H18.12	Bullous keratopathy, left eye

ICD-10-CM Code	Description
H18.13	Bullous keratopathy, bilateral
H18.451	Nodular corneal degeneration, right eye
H18.452	Nodular corneal degeneration, left eye
H18.453	Nodular corneal degeneration, bilateral
H18.461	Peripheral corneal degeneration, right eye
H18.462	Peripheral corneal degeneration, left eye
H18.463	Peripheral corneal degeneration, bilateral
H18.501	Unspecified hereditary corneal dystrophies, right eye
H18.502	Unspecified hereditary corneal dystrophies, left eye
H18.503	Unspecified hereditary corneal dystrophies, bilateral
H18.511	Endothelial corneal dystrophy, right eye
H18.512	Endothelial corneal dystrophy, left eye
H18.513	Endothelial corneal dystrophy, bilateral
H18.521	Epithelial (juvenile) corneal dystrophy, right eye
H18.522	Epithelial (juvenile) corneal dystrophy, left eye
H18.523	Epithelial (juvenile) corneal dystrophy, bilateral
H18.531	Granular corneal dystrophy, right eye
H18.532	Granular corneal dystrophy, left eye
H18.533	Granular corneal dystrophy, bilateral
H18.541	Lattice corneal dystrophy, right eye
H18.542	Lattice corneal dystrophy, left eye
H18.543	Lattice corneal dystrophy, bilateral
H18.551	Macular corneal dystrophy, right eye
H18.552	Macular corneal dystrophy, left eye
H18.553	Macular corneal dystrophy, bilateral
H18.591	Other hereditary corneal dystrophies, right eye
H18.592	Other hereditary corneal dystrophies, left eye
H18.593	Other hereditary corneal dystrophies, bilateral
H18.611	Keratoconus, stable, right eye
H18.612	Keratoconus, stable, left eye
H18.613	Keratoconus, stable, bilateral
H18.621	Keratoconus, unstable, right eye
H18.622	Keratoconus, unstable, left eye
H18.623	Keratoconus, unstable, bilateral
H18.711	Corneal ectasia, right eye
H18.712	Corneal ectasia, left eye
H18.713	Corneal ectasia, bilateral
H52.211[1]	Irregular astigmatism, right eye
H52.212[1]	Irregular astigmatism, left eye

[1] Must be accompanied by diagnosis code Z98.41, Z98.42 or Z98.83

ICD-10-CM Code	Description
H52.213[1]	Irregular astigmatism, bilateral
H53.2	Diplopia
T85.318A	Breakdown (mechanical) of other ocular prosthetic devices, implants and grafts, initial encounter
T85.318D	Breakdown (mechanical) of other ocular prosthetic devices, implants and grafts, subsequent encounter
T85.318S	Breakdown (mechanical) of other ocular prosthetic devices, implants and grafts, sequela
T85.328A	Displacement of other ocular prosthetic devices, implants and grafts, initial encounter
T85.328D	Displacement of other ocular prosthetic devices, implants and grafts, subsequent encounter
T85.328S	Displacement of other ocular prosthetic devices, implants and grafts, sequela
T86.8401	Corneal transplant rejection, right eye
T86.8402	Corneal transplant rejection, left eye
T86.8403	Corneal transplant rejection, bilateral
T86.8411	Corneal transplant failure, right eye
T86.8412	Corneal transplant failure, left eye
T86.8413	Corneal transplant failure, bilateral
T86.8421	Corneal transplant infection, right eye
T86.8422	Corneal transplant infection, left eye
T86.8423	Corneal transplant infection, bilateral
T86.8481	Other complications of corneal transplant, right eye
T86.8482	Other complications of corneal transplant, left eye
T86.8483	Other complications of corneal transplant, bilateral
T86.8491	Unspecified complication of corneal transplant, right eye
T86.8492	Unspecified complication of corneal transplant, left eye
T86.8493	Unspecified complication of corneal transplant, bilateral
Z94.7[2]	Corneal transplant status
Z98.41[2]	Cataract extraction status, right eye
Z98.42[2]	Cataract extraction status, left eye
Z98.83[2]	Filtering (vitreous) bleb after glaucoma surgery status

Reviews, Revisions, and Approvals	Date	Approval Date
Annual Review	12/2019	12/2019
Converted to new template	04/2020	06/2020
Annual Review; Added applicable CPT® codes; Updated ICD-10 diagnoses to include newly established 2021 codes; Updated references	12/2020	12/2020

[2] Cannot be billed as primary diagnosis

Reviews, Revisions, and Approvals	Date	Approval Date
Annual Review	12/2021	12/2021
Annual Review	11/2022	11/2022

References

1. Cavas-Martínez F, De la Cruz Sánchez E, Nieto Martínez J, Fernández Cañavate FJ, Fernández-Pacheco DG. Corneal topography in keratoconus: state of the art. *Eye Vis (Lond)*. 2016;3:5. Published 2016 Feb 22.
2. Fuchihata M, Maeda N, Toda R, Koh S, Fujikado T, Nishida K. Characteristics of corneal topographic and pachymetric patterns in patients with pellucid marginal corneal degeneration. Jpn J Ophthalmol. 2014 Mar;58(2):131-8.
3. American Academy of Ophthalmology, Preferred Practice Pattern® Guidelines, Corneal Edema and Opacification PPP - 2018, San Francisco, CA, American Academy of Ophthalmology, 2018, https://www.aao.org/preferred-practice-pattern/corneal-edema-and-opacification-ppp-2018
4. American Academy of Ophthalmology, Preferred Practice Pattern® Guidelines, Corneal Ectasia PPP - 2018, San Francisco, CA, American Academy of Ophthalmology, 2018, https://www.aao.org/preferred-practice-pattern/corneal-ectasia-ppp-2018

Important Reminder

This clinical policy has been developed by appropriately experienced and licensed health care professionals based on a review and consideration of currently available generally accepted standards of medical practice; peer-reviewed medical literature; government agency/program approval status; evidence-based guidelines and positions of leading national health professional organizations; views of physicians practicing in relevant clinical areas affected by this clinical policy; and other available clinical information. The Health Plan makes no representations and accepts no liability with respect to the content of any external information used or relied upon in developing this clinical policy. This clinical policy is consistent with standards of medical practice current at the time that this clinical policy was approved. "Health Plan" means a health plan that has adopted this clinical policy and that is operated or administered, in whole or in part, by Envolve Vision, Inc., or any of such health plan's affiliates, as applicable.

The purpose of this clinical policy is to provide a guide to medical necessity, which is a component of the guidelines used to assist in making coverage decisions and administering benefits. It does not constitute a contract or guarantee regarding payment or results. Coverage decisions and the administration of benefits are subject to all terms, conditions, exclusions and limitations of the coverage documents (e.g., evidence of coverage, certificate of coverage, policy, contract of insurance, etc.), as well as to state and federal requirements and applicable Health Plan-level administrative policies and procedures.

This clinical policy is effective as of the date determined by the Health Plan. The date of posting may not be the effective date of this clinical policy. This clinical policy may be subject to applicable legal and regulatory requirements relating to provider notification. If there is a discrepancy between the effective date of this clinical policy and any applicable legal or regulatory requirement, the requirements of law and regulation shall govern. The Health Plan

retains the right to change, amend or withdraw this clinical policy, and additional clinical policies may be developed and adopted as needed, at any time.

This clinical policy does not constitute medical advice, medical treatment or medical care. It is not intended to dictate to providers how to practice medicine. Providers are expected to exercise professional medical judgment in providing the most appropriate care, and are solely responsible for the medical advice and treatment of members. This clinical policy is not intended to recommend treatment for members. Members should consult with their treating physician in connection with diagnosis and treatment decisions.

Providers referred to in this clinical policy are independent contractors who exercise independent judgment and over whom the Health Plan has no control or right of control. Providers are not agents or employees of the Health Plan.

This clinical policy is the property of the Health Plan. Unauthorized copying, use, and distribution of this clinical policy or any information contained herein are strictly prohibited. Providers, members and their representatives are bound to the terms and conditions expressed herein through the terms of their contracts. Where no such contract exists, providers, members and their representatives agree to be bound by such terms and conditions by providing services to members and/or submitting claims for payment for such services.

Note: For Medicaid members, when state Medicaid coverage provisions conflict with the coverage provisions in this clinical policy, state Medicaid coverage provisions take precedence. Please refer to the state Medicaid manual for any coverage provisions pertaining to this clinical policy.

Note: For Medicare members, to ensure consistency with the Medicare National Coverage Determinations (NCD) and Local Coverage Determinations (LCD), all applicable NCDs, LCDs, and Medicare Coverage Articles should be reviewed prior to applying the criteria set forth in this clinical policy. Refer to the CMS website at http://www.cms.gov for additional information.