Local Coverage Determination (LCD):
Computerized Corneal Topography (L33810)

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**Contractor Information**

<table>
<thead>
<tr>
<th>Contractor Name</th>
<th>Contract Type</th>
<th>Contract Number</th>
<th>Jurisdiction</th>
<th>State(s)</th>
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<tr>
<td>First Coast Service Options, Inc.</td>
<td>A and B MAC</td>
<td>09102 - MAC B</td>
<td>J - N</td>
<td>Florida</td>
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<td>First Coast Service Options, Inc.</td>
<td>A and B MAC</td>
<td>09202 - MAC B</td>
<td>J - N</td>
<td>Puerto Rico</td>
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<td>First Coast Service Options, Inc.</td>
<td>A and B MAC</td>
<td>09302 - MAC B</td>
<td>J - N</td>
<td>Virgin Islands</td>
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**LCD Information**

Document Information

- **LCD ID**
  - L33810

- **Original ICD-9 LCD ID**
  - L29122

- **LCD Title**
  - Computerized Corneal Topography

- **Proposed LCD in Comment Period**
  - N/A

- **Source Proposed LCD**
  - N/A

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CMS National Coverage Policy Language quoted from CMS National Coverage Determinations (NCDs) and coverage provisions in interpretive manuals are italicized throughout the Local Coverage Determination (LCD). NCDs and coverage provisions in interpretive manuals are not subject to the LCD Review Process (42 CFR 405.860[b] and 42 CFR 426 [Subpart D]). In addition, an administrative law judge may not review an NCD. See §1869(f)(1)(A)(i) of the Social Security Act.

Unless otherwise specified, italicized text represents quotation from one or more of the following CMS sources:

CMS Manual System, Pub. 100-03, Medicare National Coverage Determinations Manual, Chapter 1, Section 80.7

Coverage Guidance
Coverage Indications, Limitations, and/or Medical Necessity

Computerized Corneal Topography (also known as computer-assisted video keratography (CAVK) and corneal mapping) is a computer-assisted diagnostic imaging technique in which a special instrument projects a series of light rings on the cornea, creating a color-coded map of the corneal surface as well as a cross-section profile. This service is used to provide a detailed map or chart of the physical features and shape of the anterior surface of the cornea. This permits a more accurate portrayal of the physical state of the cornea and the subtle detection of corneal surface irregularity and astigmatism.

Keratoplasty that treats specific lesions of the cornea, such as phototherapeutic keratectomy that removes scar tissue from the visual field, deals with an abnormality of the eye and is not cosmetic surgery. Such cases may be covered under §1862(a)(1)(A) of the Act (CMS Pub 100-03, Chapter 1, Part 1, Section 80.7.1).

Computerized Corneal Topography will be considered medically necessary under any of the following conditions:

- pre-operatively for evaluation of irregular astigmatism prior to cataract surgery
- monocular diplopia
- bullous keratopathy
- post surgical or post traumatic astigmatism, measuring at a minimum of 3.5 diopters;
- post penetrating keratoplasty surgery;
- post surgical or post traumatic irregular astigmatism;
- corneal dystrophy;
- complications of transplanted cornea;
- post traumatic corneal scarring;
- keratoconus; and/or
- pterygium and/or corneal ectasia that cause visual impairment.

Limitations

Corneal topography will only be allowed for a pre-operative cataract patient if documentation supports that the patient has irregular astigmatism

Corneal topography is to be billed only when the diagnosis of monocular diplopia is thought to be caused by a corneal irregularity.

Corneal Topography is a covered service for the above indications when medically reasonable and necessary only if the results will assist in defining further treatment. It is not covered for routine follow-up testing.

Repeat testing is only indicated if a change of vision is reported in connection with one of the above listed conditions.

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Conditions.

Services performed for screening purposes or in the absence of associated signs, symptoms, illness or injury as indicated above, will be denied as non-covered.

Corneal Topography will be non-covered if performed pre- or post-operatively in relation to a non-covered procedure, i.e., radial keratotomy.

Per CMS Pub 100-03, Chapter 1, Part 1, Section 80.7, Refractive keratoplasty is surgery to reshape the cornea of the eye to correct vision problems such as myopia (nearsightedness) and hyperopia (farsightedness). Refractive keratoplasty procedures include keratomileusis, in which the front of the cornea is removed, frozen, reshaped, and stitched back on the eye to correct either near or farsightedness; keratophakia, in which a reshaped donor cornea is inserted in the eye to correct farsightedness; and radial keratotomy, in which spoke-like slits are cut in the cornea to weaken and flatten the normally curved central portion to correct nearsightedness.

The correction of common refractive errors by eyeglasses, contact lenses or other prosthetic devices is specifically excluded from coverage. The use of radial keratotomy and/or keratoplasty (Refractive Surgeries) for the purpose of refractive error compensation is considered a substitute or alternative to eye glasses or contact lenses which are specifically excluded by §1862 (a)(7) of the Act (except in certain cases in connection with cataract surgery). In addition, many in the medical community consider such procedures cosmetic surgery which is excluded by §§1862 (a)(10) of the Act. Therefore, radial keratotomy and keratoplasty (Refractive Surgeries) to treat refractive defects are not covered.

Summary of Evidence

<p>N/A</p>

Analysis of Evidence
(Rationale for Determination)

<p>N/A</p>

Coding Information

Bill Type Codes:

Contractors may specify Bill Types to help providers identify those Bill Types typically used to report this service. Absence of a Bill Type does not guarantee that the policy does not apply to that Bill Type. Complete absence of all Bill Types indicates that coverage is not influenced by Bill Type and the policy should be assumed to apply equally to all claims.

999x Not Applicable

Revenue Codes:

Contractors may specify Revenue Codes to help providers identify those Revenue Codes typically used to report this service. In most instances Revenue Codes are purely advisory. Unless specified in the policy, services reported under other Revenue Codes are equally subject to this coverage determination. Complete absence of all Revenue Codes indicates that coverage is not influenced by Revenue Code and the policy should be assumed to apply equally to all Revenue Codes.

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### Group 1 Codes: COMPUTERIZED CORNEAL TOPOGRAPHY, UNILATERAL OR BILATERAL, WITH INTERPRETATION AND REPORT

#### ICD-10 Codes that Support Medical Necessity

<table>
<thead>
<tr>
<th>ICD-10 Codes</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>H11.001 - H11.069</td>
<td>Unspecified pterygium of right eye - Recurrent pterygium of unspecified eye</td>
</tr>
<tr>
<td>H11.141 - H11.149</td>
<td>Conjunctival xerosis, unspecified, right eye - Conjunctival xerosis, unspecified, unspecified eye</td>
</tr>
<tr>
<td>H11.811 - H11.819</td>
<td>Pseudopterygium of conjunctiva, right eye - Pseudopterygium of conjunctiva, unspecified eye</td>
</tr>
<tr>
<td>H17.89</td>
<td>Other corneal scars and opacities</td>
</tr>
<tr>
<td>H17.9</td>
<td>Unspecified corneal scar and opacity</td>
</tr>
<tr>
<td>H18.10 - H18.13</td>
<td>Bullous keratopathy, unspecified eye - Bullous keratopathy, bilateral</td>
</tr>
<tr>
<td>H18.451 - H18.469</td>
<td>Nodular corneal degeneration, right eye - Peripheral corneal degeneration, unspecified eye</td>
</tr>
<tr>
<td>H18.51</td>
<td>Endothelial corneal dystrophy</td>
</tr>
<tr>
<td>H18.52</td>
<td>Epithelial (juvenile) corneal dystrophy</td>
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<tr>
<td>H18.53</td>
<td>Granular corneal dystrophy</td>
</tr>
<tr>
<td>H18.54</td>
<td>Lattice corneal dystrophy</td>
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<tr>
<td>H18.55</td>
<td>Macular corneal dystrophy</td>
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<tr>
<td>H18.59</td>
<td>Other hereditary corneal dystrophies</td>
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<tr>
<td>H18.601 - H18.629</td>
<td>Keratoconus, unspecified, right eye - Keratoconus, unstable, unspecified eye</td>
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<tr>
<td>H18.711 - H18.719</td>
<td>Corneal ectasia, right eye - Corneal ectasia, unspecified eye</td>
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<tr>
<td>H52.211 - H52.219*</td>
<td>Irregular astigmatism, right eye - Irregular astigmatism, unspecified eye</td>
</tr>
<tr>
<td>H52.221 - H52.229*</td>
<td>Regular astigmatism, right eye - Regular astigmatism, unspecified eye</td>
</tr>
<tr>
<td>H53.2</td>
<td>Diplopia</td>
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<tr>
<td>T85.318A - T85.318S</td>
<td>Breakdown (mechanical) of other ocular prosthetic devices, implants and grafts, initial encounter</td>
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<tr>
<td>T85.328A - T85.328S</td>
<td>Displacement of other ocular prosthetic devices, implants and grafts, initial encounter</td>
</tr>
<tr>
<td>T85.398A - T85.398S</td>
<td>Other mechanical complication of other ocular prosthetic devices, implants and grafts, initial encounter</td>
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<tr>
<td>T86.840</td>
<td>Corneal transplant rejection</td>
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<tr>
<td>T86.841</td>
<td>Corneal transplant failure</td>
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<tr>
<td>T86.848</td>
<td>Other complications of corneal transplant</td>
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<tr>
<td>Z94.7*</td>
<td>Corneal transplant status</td>
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<tr>
<td>Z98.41 - Z98.49*</td>
<td>Cataract extraction status, right eye - Cataract extraction status, unspecified eye</td>
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<tr>
<td>Z98.83*</td>
<td>Filtering (vitreous) bleb after glaucoma surgery status</td>
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</table>

**Group 1 Medical Necessity ICD-10 Codes Asterisk Explanation:**

All the codes within the asterisked range from the first code to the last code apply.

*ICD-10-CM codes H52.211-H52.229 must be accompanied by diagnosis code Z98.41-Z98.49 or Z98.83.*
*Diagnosis codes Z94.7, Z98.41-Z98.49, and Z98.83 should not be billed as the primary diagnosis.

ICD-10 Codes that DO NOT Support Medical Necessity N/A
ICD-10 Additional Information Back to Top

**General Information**

**Associated Information**

**Documentation Requirements**

Medical record documentation submitted by the ordering/referring physician must indicate the medical necessity for performing the procedure and the results derived from the corneal topography procedure. This information is usually found in the history and physical, office/progress notes and the computerized corneal topography imaging interpretation and report.

**Utilization Guidelines**

It is expected that these services would be performed as indicated by current medical literature and/or standards of practice. When services are performed in excess of established parameters, they may be subject to review for medical necessity.

**Sources of Information**

First Coast Service Options, Inc. reference LCD number – L29140


**Bibliography**

&lt;p&gt;N/A&lt;/p&gt;

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**Revision History Information**

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<th>Revision History Number</th>
<th>Revision History Explanation</th>
<th>Reason(s) for Change</th>
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<tr>
<td>02/08/2018</td>
<td>R4</td>
<td>Publication: February 2018 Connection LCR B2018-003</td>
<td>Provider Education/Guidance Public Education/Guidance</td>
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Explanation of Revision: This LCD was revised in the “ICD-10 Codes that Support Medical Necessity” section of the LCD under “Group 1 Medical Necessity ICD-10 Codes Asterisk Explanation:” to include an explanation that all the codes within the asterisked range from the first code to the last code apply. The effective date of this revision is based on process date.

02/08/2018: At this time 21st Century Cures Act will apply to new and revised LCDs that restrict coverage which requires comment and notice. This revision is not a restriction to the coverage determination and therefore not all the fields included on the LCD are applicable as noted in this policy.

Revision Number: 2
Publication: August 2016 Connection
LCR B2016-015

08/08/2016 R3
Explanation of revision: The LCD was revised to add ICD-10-CM diagnosis codes H18.51, H18.52, H18.53, H18.54 and H18.55 and diagnosis range H11.811-H11.819 to the “ICD-10 Codes that Support Medical Necessity” section of the LCD. The effective date of this revision is for claims processed on or after 08/08/2016, for dates of service on or after 10/01/15.

Revision Number: 2
Publication: August 2016 Connection
LCR B2016-015

08/08/2016 R2
Explanation of revision: The LCD was revised to add ICD-10-CM diagnosis codes H18.51, H18.52, H18.53, H18.54 and H18.55 and diagnosis range H11.811-H11.819 to the “ICD-10 Codes that Support Medical Necessity” section of the LCD. The effective date of this revision is for claims processed on or after 08/08/2016, for dates of service on or after 10/01/15.

Revision Number: 1
Publication: March 2016 Connection
LCR B2016-008

02/24/2016 R1
Explanation of revision: LCD revised to add additional ICD-10-CM diagnosis code T86.848 to the “ICD-10 Codes that Support Medical Necessity” section of the LCD. The effective date of this revision is for claims processed on or after 02/24/2016, for dates of service on or after 10/01/15.

Associated Documents

Attachments N/A
Related Local Coverage Documents N/A
Related National Coverage Documents N/A

Public Version(s) Updated on 02/02/2018 with effective dates 02/08/2018 - N/A Updated on 08/09/2016 with effective dates 08/08/2016 - 02/07/2018 Updated on 08/09/2016 with effective dates 08/08/2016 - N/A Some older versions have been archived. Please visit the MCD Archive Site to retrieve them. Back to Top

Keywords

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