Corneal Procedure, Surgical 55

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Coverage Policy	Surgical 55
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All requests for authorization for the services described by this medical policy will be reviewed per Early and Periodic Screening, Diagnostic and Treatment (EPSDT) guidelines. These services may be authorized under individual consideration for Medicaid members under the age of 21-years if the services are judged to by medically necessary to correct or ameliorate the member's condition. Department of Medical Assistance Services (DMAS), Supplement B - EPSDT (Early and Periodic Screening, Diagnosis and Treatment) Manual.*.

Purpose:

This policy addresses Corneal Procedures.

Description & Definitions:

Phototherapeutic keratectomy (PTK) is a laser treatment to ablate corneal tissue to reshape the corneal surface using a less invasive technique.

Endothelial keratoplasty (EK) also known as Partial corneal transplant is a surgery to replace this layer of the cornea called "endothelium" with healthy tissue. Two types DSEK (or DSAEK) — Descemet's Stripping (Automated) Endothelial Keratoplasty and DMEK — Descemet's Membrane Endothelial Keratoplasty

Corneal Remodeling is a surgical procedure to correct refractive errors such as **Photorefractive Keratectomy (PRK)** is a laser treatment to reshape the cornea for refractory errors and vision that cause myopia (nearsightedness), hyperopia (farsightedness) and astigmatism.

Penetrating keratoplasty (PK) corneal transplant that replaces the full thickness of the cornea.

Anterior Lamellar Keratoplasty (ALK) corneal transplant that replaces a partial-thickness of the cornea without removing the endothelium layer.

Keratoprosthesis procedure is an artificial cornea implant (the clear tissue that covers the eyeball) to correct refractive errors of vision such as near- and farsightedness and difficulty focusing. The physician creates a new anterior chamber with a plastic optical implant that replaces a severely damaged cornea that cannot be repaired. Sometimes the corneal prosthesis is sutured to the sclera; other times, extensive damage to the eye requires the implant be sutured to the closed and incised eyelid.

Criteria:

Corneal Procedures (Corneal remodeling, Keratoplasties, Keratoprosthesis and Keratectomy, are considered medically necessary for indications of **1 or more of the following**:

- **Corneal remodeling** correction of surgically induced astigmatism for individuals with **ALL of the following:**
  - Corneal relaxing incision or corneal wedge resection with **1 or more of the following:**
    - Individual has had previous penetrating keratoplasty within past 60 months
    - Individual has had cataract surgery within the past 36 months
  - Degree of astigmatism must be 3.00 diopters or greater
  - Individual is intolerant of glasses or contact lenses
- **Endothelial keratoplasty** for individuals with **ALL of the following:**
  - Endothelial failure with **1 or more of the following:**
    - Descemet's stripping endothelial keratoplasty (DSEK)
    - Descemet's stripping automated endothelial keratoplasty (DSAEK)
    - Descemet's membrane endothelial keratoplasty (DMEK)
    - Descemet's membrane automated endothelial keratoplasty (DMAEK)
  - Diagnoses including **1 or more of the following:**
    - Corneal edema
    - Bullous keratopathy
    - Rupture of Descemet's membrane
    - Endothelial corneal dystrophy and other posterior corneal dystrophies
    - Mechanical complications due to corneal graft or ocular lens prostheses
- **Keratoprosthesis** (i.e KPro) device is considered medically necessary for **1 or more of the following:**
  - Diagnosis includes **ALL of the following:**
    - corneal blindness
    - Severely opaque and vascularized cornea; and
    - One or more failed corneal transplant procedures.
  - Documentation of the presence of a condition predisposing the individual to a high likelihood of corneal transplant failure.

- **Penetrating keratoplasty (PK) , Intralase-Enabled Keratoplasty (IEK)** and **anterior lamellar keratoplasty (ALK)** are considered medically necessary for individuals with indications of **1 or more of the following:**
  - Procedure is to improve poor visual acuity caused by an opaque cornea or keratopathy
  - Procedure is to treat or remove active corneal disease for, including but not limited to:
    - Bullous/dystrophic keratopathy
    - Chemical injuries
    - Corneal degeneration
    - Corneal dystrophies
    - Corneal edema
    - Corneal scar with opacity
    - Corneal transplant rejection
    - Corneal tumors, such as pterygium
    - Ectasias
    - Fuch's dystrophy
    - Herpes simplex keratitis
    - Keratoconus
    - Mechanical trauma
    - Microbial keratitis including fungal and bacterial keratitis
    - Noninfectious ulcerative keratitis
    - Regraft related to allograft rejection
    - Regraft unrelated to allograft rejection
    - Scarring after infectious keratitis
    - Viral keratitis
  - Failure of a previous keratoplasty
  - Intralase-Enabled Keratoplasty (IEK) also known as laser assisted corneal transplant as an

additional method of penetrating keratoplasty instead of the traditional trephine (a specialized circular blade) to remove piece of cornea a laser is used.)

- **Phototherapeutic keratectomy** (PTK) for individuals with **1 or more of the following:**
  - Superficial corneal dystrophy (including granular, lattice, and Reis-Buckler's dystrophy)
  - Epithelial membrane dystrophy
  - Irregular corneal surfaces due to Salzmann's nodular degeneration or kertonconus nodules
  - Corneal scars and opacities (including post-traumatic, post-infectious, post-surgical, and secondary to pathology)
  - Recurrent corneal erosions when more conservative measures have failed to halt the erosions (including but not limited to lubricants, hypertonic saline, patching, bandage contact lenses, gentle debridement of the epithelium)

There is insufficient scientific evidence to support the medical necessity of Lamellar keratoplasty and penetrating keratoplasty with the following contraindications:

- Severe dry eye
- Steven Johnson syndrome
- Toxic epidermal necrolysis
- Advanced ocular surface disease
- Anterior staphyloma
- Retinal detachment
- Blepharitis
- Meibomian gland disease
- Acute conjunctivitis
- Episcleritis

There is insufficient scientific evidence to support the medical necessity of Lamellar keratoplasty (non-penetrating keratoplasty) for pterygium and when performed improvement in visual acuity to solely to correct astigmatism or other refractive errors.

There is insufficient scientific evidence to support the medical necessity of Penetrating keratoplasty when performed solely to correct astigmatism or other refractive errors.

There is insufficient scientific evidence to support the medical necessity of Keratoprosthesis for uses other than those listed in the clinical indications for procedure section.

The following Refractive procedures are considered experimental, investigational or unproven:

- automated lamellar keratomileusis (ALK) (i.e. standard keratomileusis) for the treatment of all refractive errors (CPT® code 65760)
- corneal inlay (CPT® code 66999)
- Decellularised corneas(CPT® code 66999)
- hexagonal keratotomy in all cases (CPT® code 66999)
- keratophakia for the correction of all refractive errors (CPT® code 65765)
- Limbal epithelial stem cells (LESCs) (CPT® code 66999)
- minimally-invasive radial keratotomy (mini-RK) in all cases (CPT® code 66999)
- Porcine corneas(CPT® code 66999)
- scleral expansion surgery (CPT® code 66999)
- 3D printing – artificial corneas(CPT® code 66999)

Coding:

Medically necessary with criteria:

Coding	Description
58353	Endometrial ablation, thermal, without hysteroscopic guidance

65710	Keratoplasty (corneal transplant); anterior lamellar
65730	Keratoplasty (corneal transplant); penetrating (except in aphakia or pseudophakia)
65750	Keratoplasty (corneal transplant); penetrating (in aphakia)
65755	Keratoplasty (corneal transplant); penetrating (in pseudophakia)
65756	Keratoplasty (corneal transplant); endothelial
65757	Backbench preparation of corneal endothelial allograft prior to transplantation (List separately in addition to code for primary procedure)
65770	Keratoprosthesis
65772	Corneal relaxing incision for correction of surgically induced astigmatism
65775	Corneal wedge resection for correction of surgically induced astigmatism
66999	Unlisted procedure, anterior segment of eye
L8609	Artificial cornea
S0810	Photorefractive keratectomy (PRK)
S0812	Phototherapeutic keratectomy (PTK)

Considered Not Medically Necessary:

Coding	Description
	None

U.S. Food and Drug Administration (FDA) - approved only products only.

Document History:

Revised Dates:

- 2024: August – criteria updated references updated
- 2023: August
- 2022: July
- 2019: October
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- 2008: April

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- 2022: 2023: July

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- 2011: May
- 2010: April

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References:

Specialty Association Guidelines; Government Regulations; Winifred S. Hayes, Inc; UpToDate; Literature Review; Specialty Advisors; National Coverage Determination (NCD); Local Coverage Determination (LCD).

(2024). Retrieved 7 2024, from Hayes: https://evidence.hayesinc.com/search?q=%257B%2522text%2522:%2522cornea%2522,%2522title%2522:null,%2522termsource%2522:%2522searchbar%2522,%2522page%2522:%257B%2522page%2522:0,%2522size%2522:50%257D,%2522type%2522:%2522all%2522,%2522sources%2522:%255B%2522

27th Edition. (2024). Retrieved 2024, from MCG: https://careweb.careguidelines.com/ed27/

(2024). Retrieved 2024, from American Academy of Ophthalmology (AAO): https://www.aao.org/education/guidelines-browse?filter=Clinical+Statements%2cGuidelines&sub=ONE.ContentTypes.ClinicalStatement%2cONE.ContentTypes.PreferredPracticePatternGuideline

Artificial Corneas. (2021). Retrieved 7 2024, from National Institutes of Health – Frontier Medicine: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8632951/

Keratoconus. (2024, 5). Retrieved 7 2024, from UpToDate: https://www.uptodate.com/contents/keratoconus?search=corneal%20transplant&source=search_result&selectedTitle=1%7E32&usage_type=default&display_rank=1#H7023406

Overview of the management of epidermolysis bullosa. (2024, 1). Retrieved 7 2024, from UpToDate 2: https://www.uptodate.com/contents/overview-of-the-management-of-epidermolysis-bullosa?search=corneal%20transplant&source=search_result&selectedTitle=22%7E32&usage_type=default&display_rank=22

Phototherapeutic Keratectomy. (2024, 2). Retrieved 7 2024, from VisionCenter.org: https://www.visioncenter.org/surgery/phototherapeutic-keratectomy/

Provider Manual Title: Hospital - Appendix D: Service Authorization. (2021). Retrieved 7 2024, from DMAS: https://vamedicaid.dmas.virginia.gov/sites/default/files/2023-07/Hospital%20Manual%20App%20D%20%28updated%2012.8.21%29_Final.pdf

Refractive Keratoplasty 80.7. (1997). Retrieved 2024, from National Coverage Determination (NCD): https://www.cms.gov/medicare-coverage-database/view/ncd.aspx?ncdid=72&ncdver=1&keyword=Refractive%20Keratoplasty&keywordType=starts&areaId=all&do

Special Notes: *

This medical policy express Sentara Health Plan's determination of medically necessity of services, and they are based upon a review of currently available clinical information. These policies are used when no specific guidelines for coverage are provided by the Department of Medical Assistance Services of Virginia (DMAS). Medical Policies may be superseded by state Medicaid Plan guidelines. Medical policies are not a substitute for clinical judgment or for any prior authorization requirements of the health plan. These policies are not an explanation of benefits.

Medical policies can be highly technical and complex and are provided here for informational purposes. These medical policies are intended for use by health care professionals. The medical policies do not constitute medical advice or medical care. Treating health care professionals are solely responsible for diagnosis, treatment and medical advice. Sentara Health Plan members should discuss the information in the medical policies with their treating health care professionals. Medical technology is constantly evolving and these medical policies are subject to change without notice, although Sentara Health Plan will notify providers as required in advance of changes that could have a negative impact on benefits.

The Early and Periodic Screening, Diagnostic and Treatment (EPSDT) covers services, products, or procedures for children, if those items are determined to be medically necessary to "correct or ameliorate" (make better) a defect, physical or mental illness, or condition (health problem) identified through routine medical screening or examination, regardless of whether coverage for the same service or support is an optional or limited service under the state plan. Children enrolled in the FAMIS Program are not eligible for all EPSDT treatment services. All requests for authorization for the services described by this medical policy will be reviewed per EPSDT guidelines. These services may be authorized under individual consideration for Medicaid members under the age of 21-years if the services are judged to by medically necessary to correct or ameliorate the member's condition. *Department of Medical Assistance Services (DMAS), Supplement B - EPSDT (Early and Periodic Screening, Diagnosis and Treatment) Manual.*

Keywords:

Phototherapeutic Keratectomy, Endothelial Keratoplasty, Corneal Remodeling, Corneal Surgery, SHP Surgical 55, PTK, Superficial corneal dystrophy, granular, latice, Reis-Buckler's dystrophy, Epithelial membrane dystrophy, Salzmann's nodular degeneration, kertonconus nodules, Corneal scars, corneal opacities, corneal transplant, astigmatism, Descemet's stripping endothelial keratoplasty, DSEK, Descemet's stripping automated endothelial keratoplasty, DSAEK, Descemet's membrane endothelial keratoplasty, DLEK, Descemet's membrane, Bullous keratopathy, Corneal edema, Endothelial corneal dystrophy, corneal graft, ocular lens prostheses, excimer laser–based surgical procedure, corneal wedge resection, Descemet membrane endothelial keratoplasty, DMEK