



MASSACHUSETTS

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## Medical Policy

### Keratoprosthesis

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#### Policy Number: 221

BCBSA Reference Number: 9.03.01

#### Related Policies

- Endothelial Keratoplasty, #180
- Implantation of Intrastromal Corneal Ring Segments, #235

#### Policy

##### **Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity Medicare HMO Blue<sup>SM</sup> and Medicare PPO Blue<sup>SM</sup> Members**

Boston Keratoprosthesis (Boston KPro) is **MEDICALLY NECESSARY** for the treatment of corneal blindness when the following indications are present:

- The cornea is severely opaque and vascularized
- There is significant limbal stem cell compromise, including but not limited to aniridia, chemical injury, or other toxic insults to the cornea, or
- The cornea is anesthetic, such as following herpes simples or zoster infection

Note: The keratoprosthesis can be performed on patients with the indications noted above who have or have not had prior corneal transplants.

Boston Keratoprosthesis is **NOT MEDICALLY NECESSARY** for the following conditions:

- Patients who are not expected to be compliant with postoperative care
- Patients whose corneal blindness is caused by mechanisms other than those stated as covered above who have not failed 2 previous corneal transplants
- All other conditions not explicitly covered above, and
- All other types of permanent keratoprostheses.

#### Prior Authorization Information

##### **Commercial Members: Managed Care (HMO and POS)**

Prior authorization is **NOT** required.

##### **Commercial Members: PPO, and Indemnity**

Prior authorization is **NOT** required.

## Medicare Members: HMO Blue<sup>SM</sup>

Prior authorization is **NOT** required.

## Medicare Members: PPO Blue<sup>SM</sup>

Prior authorization is **NOT** required.

### CPT Codes / HCPCS Codes / ICD-9 Codes

The following codes are included below for informational purposes. Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement. Please refer to the member's contract benefits in effect at the time of service to determine coverage or non-coverage as it applies to an individual member. A draft of future ICD-10 Coding related to this document, as it might look today, is included below for your reference.

Providers should report all services using the most up-to-date industry-standard procedure, revenue, and diagnosis codes, including modifiers where applicable.

#### CPT Codes

CPT codes:	Code Description
65770	Keratoprosthesis

#### HCPCS Codes

HCPCS codes:	Code Description
C1818	Integrated keratoprosthesis
L8609	Artificial cornea

#### ICD-9 Diagnosis Codes

ICD-9-CM diagnosis codes:	Code Description
053.21	Herpes zoster keratoconjunctivitis
369.00	Profound impairment, both eyes, impairment level not further specified
369.01	Better eye: total vision impairment; lesser eye: total vision impairment
369.02	Better eye: near-total vision impairment; lesser eye: not further specified
369.03	Better eye: near-total vision impairment; lesser eye: total vision impairment
369.04	Better eye: near-total vision impairment; lesser eye: near-total vision impairment
369.05	Better eye: profound vision impairment; lesser eye: not further specified
369.06	Better eye: profound vision impairment; lesser eye: total vision impairment
369.07	Better eye: profound vision impairment; lesser eye: near-total vision impairment
369.08	Better eye: profound vision impairment; lesser eye: profound vision impairment
369.10	Moderate or severe impairment, better eye, impairment level not further specified
369.11	Better eye: severe vision impairment; lesser eye: blind, not further specified
369.12	Better eye: severe vision impairment; lesser eye: total vision impairment
369.13	Better eye: severe vision impairment; lesser eye: near-total vision impairment
369.14	Better eye: severe vision impairment; lesser eye: profound vision impairment
369.15	Better eye: moderate vision impairment; lesser eye: blind, not further specified
369.16	Better eye: moderate vision impairment; lesser eye: total vision impairment
369.17	Better eye: moderate vision impairment; lesser eye: near-total vision impairment
369.18	Better eye: moderate vision impairment; lesser eye: profound vision impairment
369.21	Better eye: severe vision impairment; lesser eye; impairment not further specified
369.22	Better eye: severe vision impairment; lesser eye: severe vision impairment
369.23	Better eye: moderate vision impairment; lesser eye: impairment not further specified

369.24	Better eye: moderate vision impairment; lesser eye: severe vision impairment
369.25	Better eye: moderate vision impairment; lesser eye: moderate vision impairment
369.4	Legal blindness, as defined in U.S.A.
369.60	Profound impairment, one eye, impairment level not further specified
369.61	One eye: total vision impairment; other eye: not specified
369.62	One eye: total vision impairment; other eye: near-normal vision
369.63	One eye: total vision impairment; other eye: normal vision
369.64	One eye: near-total vision impairment; other eye: vision not specified
369.65	One eye: near-total vision impairment; other eye: near-normal vision
369.66	One eye: near-total vision impairment; other eye: normal vision
369.67	One eye: profound vision impairment; other eye: vision not specified
369.68	One eye: profound vision impairment; other eye: near-normal vision
369.69	One eye: profound vision impairment; other eye: normal vision
369.70	Moderate or severe impairment, one eye, impairment level not further specified
369.71	One eye: severe vision impairment; other eye: vision not specified
369.72	One eye: severe vision impairment; other eye: near-normal vision
369.73	One eye: severe vision impairment; other eye: normal vision
369.74	One eye: moderate vision impairment; other eye: vision not specified
369.75	One eye: moderate vision impairment; other eye: near-normal vision
369.76	One eye: moderate vision impairment; other eye: normal vision
370.60	Corneal neovascularization, unspecified
370.61	Local vascularization of cornea
370.62	Pannus (corneal)
370.63	Deep vascularization of cornea
370.64	Ghost vessels (corneal) in corneal neovascularization
371.00	Corneal opacity, unspecified
371.01	Minor opacity of cornea
371.02	Peripheral opacity of cornea
371.03	Central opacity of cornea
371.04	Adherent leucoma
371.89	Other corneal disorders
940.2	Alkaline chemical burn of cornea and conjunctival sac
940.3	Acid chemical burn of cornea and conjunctival sac

### ICD-10 Diagnosis Codes

<b>ICD-10-CM Diagnosis codes:</b>	<b>Code Description</b>
B02.33	Zoster keratitis
H16.401	Unspecified corneal neovascularization, right eye
H16.402	Unspecified corneal neovascularization, left eye
H16.403	Unspecified corneal neovascularization, bilateral
H16.409	Unspecified corneal neovascularization, unspecified eye
H16.411	Ghost vessels (corneal), right eye
H16.412	Ghost vessels (corneal), left eye
H16.413	Ghost vessels (corneal), bilateral
H16.419	Ghost vessels (corneal), unspecified eye
H16.421	Pannus (corneal), right eye
H16.422	Pannus (corneal), left eye
H16.423	Pannus (corneal), bilateral
H16.429	Pannus (corneal), unspecified eye
H16.431	Localized vascularization of cornea, right eye

H16.432	Localized vascularization of cornea, left eye
H16.433	Localized vascularization of cornea, bilateral
H16.439	Localized vascularization of cornea, unspecified eye
H16.441	Deep vascularization of cornea, right eye
H16.442	Deep vascularization of cornea, left eye
H16.443	Deep vascularization of cornea, bilateral
H16.449	Deep vascularization of cornea, unspecified eye
H17.00	Adherent leukoma, unspecified eye
H17.01	Adherent leukoma, right eye
H17.02	Adherent leukoma, left eye
H17.03	Adherent leukoma, bilateral
H17.10	Central corneal opacity, unspecified eye
H17.11	Central corneal opacity, right eye
H17.12	Central corneal opacity, left eye
H17.13	Central corneal opacity, bilateral
H17.811	Minor opacity of cornea, right eye
H17.812	Minor opacity of cornea, left eye
H17.813	Minor opacity of cornea, bilateral
H17.819	Minor opacity of cornea, unspecified eye
H17.821	Peripheral opacity of cornea, right eye
H17.822	Peripheral opacity of cornea, left eye
H17.823	Peripheral opacity of cornea, bilateral
H17.829	Peripheral opacity of cornea, unspecified eye
H17.89	Other corneal scars and opacities
H17.9	Unspecified corneal scar and opacity
H18.891	Other specified disorders of cornea, right eye
H18.892	Other specified disorders of cornea, left eye
H18.893	Other specified disorders of cornea, bilateral
H18.899	Other specified disorders of cornea, unspecified eye
H54.0	Blindness, both eyes
H54.10	Blindness, one eye, low vision other eye, unspecified eyes
H54.11	Blindness, right eye, low vision left eye
H54.12	Blindness, left eye, low vision right eye
H54.2	Low vision, both eyes
H54.40	Blindness, one eye, unspecified eye
H54.41	Blindness, right eye, normal vision left eye
H54.42	Blindness, left eye, normal vision right eye
H54.50	Low vision, one eye, unspecified eye
H54.51	Low vision, right eye, normal vision left eye
H54.52	Low vision, left eye, normal vision right eye
H54.8	Legal blindness, as defined in USA
T26.60xA	Corrosion of cornea and conjunctival sac, unspecified eye, initial encounter
T26.60xD	Corrosion of cornea and conjunctival sac, unspecified eye, subsequent encounter
T26.60xS	Corrosion of cornea and conjunctival sac, unspecified eye, sequela
T26.61xA	Corrosion of cornea and conjunctival sac, right eye, initial encounter
T26.61xD	Corrosion of cornea and conjunctival sac, right eye, subsequent encounter
T26.61xS	Corrosion of cornea and conjunctival sac, right eye, sequela
T26.62xA	Corrosion of cornea and conjunctival sac, left eye, initial encounter
T26.62xD	Corrosion of cornea and conjunctival sac, left eye, subsequent encounter
T26.62xS	Corrosion of cornea and conjunctival sac, left eye, sequela

## Description

The cornea is a clear, dome-shaped membrane that covers the front of the eye and is key refractive element of the eye. A keratoprosthesis is an artificial cornea that is intended to restore vision to patients with severe bilateral corneal damage or disease (such as prior failed corneal transplants, corneal opacification, chemical injuries, or certain immunological conditions) for whom a corneal transplant is not an option. In certain conditions such as Stevens-Johnson syndrome, cicatricial pemphigoid, chemical injury, or prior failed corneal transplant, survival of transplanted cornea is poor. The keratoprosthesis has been developed to restore vision in patients for whom a corneal transplant is not an option.

Keratoprosthesis devices consist of a central optic held in a cylindrical frame that replaces the section of damaged cornea that has been surgically removed, and, along with being held in place by the surrounding tissue, may be covered by a membrane to further anchor the prosthesis. Generally, keratoprostheses are used to treat the most complex and high-risk cases in which all other available treatment options have failed. The surgery and postoperative management are not without challenges, and visual acuity is often limited by pre-existing pathology.

The Boston Keratoprosthesis (KPro) is considered investigational except when used for the medically necessary indications that are consistent with the policy statement. All other keratoprosthesis devices for artificial corneal transplants are considered investigational regardless of the commercial name, the manufacturer or FDA approval status except as noted in the policy statement.

## Summary

Based on the literature and clinical input, the Boston KPro is the most widely used and accepted keratoprosthesis in the U.S. at this time. Anatomical retention and visual success of this device at mid- to long-term outcomes are unknown, but short-term visual outcomes with the Boston KPro are promising. It should be noted that this remains a high-risk procedure that is associated with numerous complications (such as growth of retroprosthetic membranes) and a probable need for additional surgery. Complications with other designs of keratoprostheses appear to be worse than those associated with the Boston KPro. Therefore, given the absence of alternative treatment options, the Boston KPro may be medically necessary for patients with corneal opacification and who have significant limbal stem cell compromise.

## Policy History

Date	Action
6/2014	Updated Coding section with ICD10 procedure and diagnosis codes, effective 10/2015.
5/2014	New references from BCBSA National medical policy.
11/2011-4/2012	Medical policy ICD 10 remediation: Formatting, editing and coding updates. No changes to policy statements.
2/2011	Reviewed - Medical Policy Group - Psychiatry and Ophthalmology. No changes to policy statements.
8/1/2010	Medical Policy 221 effective 8/1/2010 describing covered and non-covered indications. Policy information previously addressed on medical policy #241, Surgical Vision Services.

## Information Pertaining to All Blue Cross Blue Shield Medical Policies

Click on any of the following terms to access the relevant information:

[Medical Policy Terms of Use](#)

[Managed Care Guidelines](#)

[Indemnity/PPO Guidelines](#)

[Clinical Exception Process](#)

[Medical Technology Assessment Guidelines](#)

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