



Corneal Cross Linking for Treatment of Keratoconus

Last Revision/Review Date: July 17, 2018

P&P # C.5.28

A. Documentation Required:

To facilitate the authorization process, referral requests must include **ALL** the following:

1. Documentation of progressive keratoconus as defined under Criteria for Medical Necessity;
2. Patient is 14 years of age or older;
3. Documentation of 2 consecutive topography results (color images which include measurements), refractions and best corrected visual acuity demonstrating progression of keratoconus.

B. Criteria for Medical Necessity:

Treatment with epithelium-off photochemical collagen corneal crosslinking is considered medically necessary if **ALL** the following criteria are met:

1. Patient is aged 14 years or older; **AND**
2. There is an established diagnosis of keratoconus based upon clinical findings and topography; **AND**
3. Presence of **PROGRESSIVE** keratoconus documented by changes over no greater than an 18-month time period as evidenced by **AT LEAST ONE** of the following:
 - a. Thinning of the cone apex more than 10 microns; **OR**
 - b. Greater than or equal to 1.00 Diopter increase in the steepest keratometry measurement; **OR**
 - c. Greater than or equal to 1.00 Diopter increase in manifest cylinder; **OR**
 - d. Greater than or equal to 0.5 Diopter increase in manifest refraction spherical equivalent (MRSE).

C. Indications Considered Experimental, Investigational, or not Medically Necessary: (*Not an all-inclusive list*)

1. Transepithelial cross-linking – “epithelium on” cross-linking.
2. Photochemical cross-linking when done in combination with other procedures.
3. All additional categories of corneal ectasia.
4. Partial epithelium-off corneal cross-linking.
5. Corneal thickness < 400 microns
6. Prior herpetic viral infection of the eye
7. Concurrent infection
8. Severe corneal scarring or opacification
9. History of poor epithelial wound healing
10. Severe ocular surface disease
11. Autoimmune disorders
12. Pellucid marginal degeneration
13. Wound ectasia (post-penetrating keratoplasty)
14. Keratoglobus

D. Exclusions:

1. Post-refractive surgery ectasia

CPT/HCPCS CODES:

0402T	Collagen cross-linking of cornea (including removal of the corneal epithelium and intraoperative pachymetry when performed)
-------	---

REFERENCES:

Eye(Lond), Keratoglobus, 2013 Sept; 27(9): 1004-1012.

Farjadnia M, Naderan M, Corneal cross-linking treatment of keratoconus. Oman Journal of Ophthalmology, Vol 8, No 2, 2015. DOI: 10.4103/0974-620x.159105. Accessed September 7, 2017.

Galvis G, et al. Patient selection for corneal collagen cross-linking: an updated review. Clinical Ophthalmology. 2017; 11:657-668.

Gomes J, et al. Global Delphi Panel of Keratoconus and Ectatic Diseases. Cornea. 2015;34(4):359-369.

Hayes, Inc. Medical Technology Directory. Corneal Cross-Linking for Treatment of Keratoconus. Publication date: February 15, 2018. Accessed July 11, 2018.

Hersh PS, et al. Unites States Multicenter Clinical Trial of Corneal Collagen Crosslinking for Keratoconus Treatment. Journal of Ophthalmology, 2017, Sept; 124(9)1259-1270.

[Koller T, Pajic B, Vinciguerra P, Seiler T. Flattening of the cornea after collagen crosslinking for keratoconus. J Cataract Refract Surg 2011; 37:1488.](#)

Munir W, Corneal Cross-linking. American Academy of Ophthalmology April 20, 2016

[O'Brart DP, Patel P, Lascaratos G, et al. Corneal Cross-linking to Halt the Progression of Keratoconus and Corneal Ectasia: Seven-Year Follow-up. Am J Ophthalmol 2015; 160:1154.](#)

Wittig-Silva C, et al. A Randomized, Controlled Trial of Corneal Collagen Cross-Linking in Progressive Keratoconus. Journal of Ophthalmology, 2014, April;121(4)812-820.