



## NHS MEDICAL POLICY

### Corneal Crosslinking Procedure 2018-004

Corneal collagen cross-linking (CXL), FDA approved in 2016, uses ultraviolet-A light and a photosensitizer (riboflavin – vitamin B2) to strengthen bonds in the cornea to treat keratoconus.

Corneal Crosslinking may be indicated when ALL the following are present:

1	The provider documented a diagnosis of progressive keratoconus.
2	Contact lenses were tried or not tolerated or the patient was not deemed to be a candidate (due to dry eyes).

### SOURCES

1. FDA.gov: Corneal crosslinking
2. UpToDate.com was accessed May 15, 2018: Keratoconus
3. Canadian Agency for Drugs and Technologies in Health (CADTH). Corneal cross-linking with riboflavin for keratoconus: Clinical and cost-effectiveness. Rapid Response Report: Summary of Abstracts. Ottawa, ON: CADTH; August 21, 2012.
4. Caporossi A, Mazzotta C, Baiocchi S, Caporossi T. Long-term results of riboflavin ultraviolet a corneal collagen cross-linking for keratoconus in Italy: The Siena eye cross study. Am J Ophthalmol. 2010;149(4):585-593.
5. Coskunseven E, Jankov MR, Hafezi F. Contralateral eye study of corneal collagen cross-linking with riboflavin and UVA irradiation in patients with keratoconus. J Refract Surg. 2009;25(4):371-376.
6. Greenstein SA, Fry KL, Hersh PS. Corneal topography indices after corneal collagen crosslinking for keratoconus and corneal ectasia: One-year results. J Cataract Refract Surg. 2011;37(7):1282-1290.
7. Grewal DS, Brar GS, Jain R, et al. Corneal collagen crosslinking using riboflavin and ultraviolet-A light for keratoconus: One-year analysis using Scheimpflug imaging. J Cataract Refract Surg. 2009;35(3):425-432.

8. Henriquez MA, Izquierdo L Jr, Bernilla C, et al. Riboflavin/Ultraviolet A corneal collagen cross-linking for the treatment of keratoconus: Visual outcomes and Scheimpflug analysis. *Cornea*. 2011;30(3):281-286.
9. Koller T, et al, Flattening of the cornea after collagen crosslinking for keratoconus, *J Cataract Refract Surg*. 2011;37(8):1488.
10. Letko E, Majmudar PA, Forstot SL, et al. UVA-light and riboflavin-mediated corneal collagen cross-linking. *Int Ophthalmol Clin*. 2011;51(2):63-76.
11. National Institute for Health and Clinical Excellence (NICE). Photochemical corneal collagen cross-linkage using riboflavin and ultraviolet A for keratoconus and keratectasia. *Interventional Procedure Guidance 466*. London, UK: NICE; September 2013.
12. O'Brart DP, et al, Corneal Cross-linking to Halt the Progression of Keratoconus and Corneal Ectasia: Seven-Year Follow-up, *Am J Ophthalmol*. 2015 Dec;160(6):1154-63.
13. Pron G, Ieraci I, Kaulback K. Collagen cross-linking using riboflavin and ultraviolet-A for corneal thinning disorders: An evidence-based analysis. Toronto, ON: Ontario Ministry of Health and Long-Term Care, Medical Advisory Secretariat (MAS); November 2011;11(5).
14. Sykakis E, et al, Corneal collagen cross-linking for treating keratoconus. *Cochrane Database Syst Rev*. 2015
15. Wittig-Silva C, Whiting M, Lamoureux E, et al. A randomized controlled trial of corneal collagen cross-linking in progressive keratoconus: preliminary results. *J Refract Surg*. 2008;24(7):S720-S725.

**CODE REFERENCE** (This may not be a comprehensive list of codes to apply to this policy.)

0402T Collagen Crosslinking Cornea  
J3490 drug injection

#### **POLICY HISTORY/REVISION INFORMATION**

Date	Action/Description
06/12/2019	Annual review and approval by UM Committee
06/11/2020	Annual review and approval by UM Committee
06/11/2021	Annual review and approval by UM Committee
06/10/2022	Annual review and approval by UM Committee
05/26/2023	Annual review and approval by UM/QM Committee
05/20/2024	Annual review and approval by UM/QM Committee
03/25/2025	Annual review and approval by UM/QM Committee