

Policy #: 050

Original policy date: 2/98
Revised date: 7/24/09

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Title

Corneal Endothelial Microscopy

Description

The cells of the endothelial layer (the innermost lining) of the cornea are responsible for removing excess fluid from the cornea. If this is not done effectively, the cornea will swell and lose its ability to transmit light, resulting in visual impairment which can become permanent. The endothelial cells can be damaged by trauma and other conditions. Unlike the surface of the cornea, these cells do not reproduce, so that damage is permanent.

In order to examine the cells that make up the endothelial layer of the cornea, a special slit lamp known as a specular microscope is used. The most common use of endothelial microscopy is to evaluate the risk of post-operative corneal decompensation after surgery, typically cataract surgery. During cataract surgery, the cornea is disturbed, which can lead to swelling of the cornea. If the endothelial cells cannot remove the excess fluid causing the swelling, there can be permanent opacification (clouding) of the cornea, producing visual impairment.

The procedure is also used to evaluate conditions known as dystrophies, which are abnormalities of the tissues of the cornea, and to assess the viability of donated corneas for transplant.

When services are covered for all Products (including Medicare HMO Blue, Medicare PPO Blue and Blue Medicare PFFS PlusRx)

We cover **corneal endothelial microscopy (specular microscopy)** for the following indications¹:

- As a pre-operative test for patients undergoing intra-ocular surgery (such as cataract surgery), to help identify patients at risk for post-surgical problems
- For patients undergoing surgical procedures with high risk to corneal endothelium, such as phacoemulsification
- For patients with corneal abnormalities, such as corneal dystrophy or edema, or irido-corneal endothelium syndrome
- For patients who have undergone intraocular surgery who are being fitted with extended-wear contact lenses
- For patients with slit lamp evidence of endothelial dystrophy
- For patients with slit lamp evidence of corneal edema.

When services are not covered for all Products (including Medicare HMO Blue, Medicare PPO Blue and Blue Medicare PFFS PlusRx)

We do not cover **corneal endothelial microscopy** services when they do not meet our medical necessity guidelines.

Individual consideration

All our medical policies are written for the majority of people with a given condition. Each policy is based on medical science. For many of our medical policies, each individual's unique clinical circumstances may be

considered in light of current scientific literature. For consideration of an individual patient, physicians may send relevant clinical information to:

For services already billed	Prior to performance of service
Blue Cross Blue Shield of Massachusetts Provider Appeals PO Box 986065 Boston, MA 02298	Blue Cross Blue Shield of Massachusetts Case Creation/Medical Policy One Enterprise Drive Quincy, MA 02171 Tel: 1-800-327-6716 Fax: 1-888-641-5330

Managed care guidelines

- Authorizations are not required.
- Any specialist visit requires a referral.

Indemnity and PPO guidelines

- Authorizations are not required.

Coding information

Procedure codes are from current CPT, HCPCS Level II, Revenue Code, and/or ICD-9-CM manuals, as recommended by the American Medical Association, Centers for Medicare and Medicaid Services and American Hospital Associations. Blue Cross Blue Shield Association national codes may be developed when appropriate.

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.

Endothelial microscopy:

- CPT code 92286, special anterior segment photography with interpretation and report; with specular endothelial microscopy and cell count

NOTE: When a pre-surgical examination for cataract surgery is performed, if the only visual problem is cataracts, endothelial cell photography is covered as part of the presurgical comprehensive eye examination or combination brief/intermediate examination provided prior to cataract surgery, and not in addition to it.¹

NOTE: When corneal endothelial microscopy is done as part of the work-up prior to cataract extraction, it is not reimbursed separately. It is considered part of the pre-surgical comprehensive eye exam (CPT codes 92002 or 92014). CPT code 92286 will deny as "incidental" when billed with CPT code 92002 or CPT code 92014, leaving no patient balance.

Policy update history

Reviewed 2/98. Policy on corneal endothelial microscopy was added. Reviewed 2/99, no changes in coverage were made. Reviewed 2/00, no changes in coverage were made. Reviewed 2/01, no changes in coverage were made. Reviewed 2/04 MPG Psychiatry, Ophthalmology and Endocrinology, no changes in coverage were made. Reviewed 2/06 MPG- Psychiatry, Ophthalmology and Endocrinology, no changes in coverage were made. Reviewed 2/07 MPG- Psychiatry, Ophthalmology and Endocrinology, no changes in coverage were made. Updated 5/07 to reformat coding information section and remove deleted codes. New policy, effective 8/08. Reviewed 2/09 MPG – Psychiatry, Ophthalmology and Endocrinology, no changes in coverage were made.

Footnotes and References

¹Based upon CMS National Coverage Determination (NCD). The NCD can be found at § 80.8 of the Medicare NCD manual and in Coverage Issue manual, CIM 50-38, titled Endothelial Cell Photography.

This document is designed for informational purposes only and is not an authorization, or an explanation of benefits, or a contract. Receipt of benefits is subject to satisfaction of all terms and conditions of the coverage. Medical technology is constantly changing, and we reserve the right to review and update our policies periodically.

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