

Evidence Based Guideline

Treatment for Age Related Macular Degeneration

File Name: treatment_for_age_related_macular_degeneration
Guideline Number: EBG.DRU4175
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Active guideline, no longer scheduled for routine literature review

Description of Procedure or Service

Age-related macular degeneration (AMD) is a disease that affects the central vision. It is a common cause of vision loss among people over age of 55. The disease affects the [macula](#), which is located at the center of the [retina](#) (the light-sensitive tissue which lines the back of the eye). The [macula](#) provides us with central vision and is responsible for the sharp, direct vision needed to read, drive or watch television. The [fovea](#) is a small depression in the center of the [macula](#) that provides the sharpest vision. When the [macula](#) is damaged, significant vision loss can occur.

There are two types of AMD: non-neovascular or "dry" and the more severe neovascular or "wet" form. The non-neovascular (dry) form of AMD is more common and leads to a slow deterioration of the [macula](#) with a gradual loss of vision over a period of years.

Although wet AMD accounts for only 10% of patients with AMD, 90% of AMD patients with significant vision loss have this form of the disease. Wet AMD is caused by the growth of abnormal new blood vessels under the central part of the [retina](#), the [macula](#) (choroidal neovascularization). Because these new blood vessels tend to be very fragile, they will often leak fluid and blood underneath the [macula](#). This leakage causes a blister to form in the [retina](#), which lifts the [macula](#) from its normal place causing distorted vision. The development of the abnormal blood vessels is due in part to the activity of vascular endothelial growth factor (VEGF), which induces [angiogenesis](#) and increases vascular permeability and inflammation. All of this is thought to contribute to the progression of the neovascular (wet) form of the disease.

VEGF is a crucial positive regulator of [angiogenesis](#) and evidence for its role in the pathological ocular neovascularization in disorders such as neovascular AMD provided the rationale for the assessment of anti-VEGF agents such as pegaptanib and ranibizumab as potential therapies. Pegaptanib sodium injection (Macugen) was approved by the U. S. Food and Drug Administration (FDA) on December 17, 2004 for the treatment of patients with neovascular (wet) age-related macular degeneration. Macugen is recommended to be administered once every six weeks by intravitreal injection into the eye to be treated. Ranibizumab injection (Lucentis) was approved by the U.S. Food and Drug Administration (FDA) on June 30, 2006 for the treatment of patients with neovascular (wet) age-related macular degeneration. Lucentis is recommended to be administered by intravitreal injection once a month. Although less effective, treatment may be reduced to one injection every three months after the first four injections if monthly injections are not feasible. Compared to continued monthly dosing, dosing every 3 months will lead to an approximate 5-letter (1-line) loss of visual acuity benefit, on average, over the following 9 months. Patients should be evaluated regularly.

Note: Please also refer to Evidence Based Guideline EBG.MED1333, Photodynamic Therapy, Ocular for the treatment of patients with neovascular (wet) age-related macular degeneration with photodynamic therapy.

Policy: Treatment for Age Related Macular Degeneration

Evidence Based Guideline for Treatment for Age Related Macular Degeneration

Ranibizumab injection (Lucentis) may be appropriate for the treatment of individuals with neovascular (wet) age-related macular degeneration (AMD). Pegaptanib sodium injection (Macugen) may be appropriate for the treatment of individuals with neovascular (wet) age related macular degeneration.

Medical Evidence regarding Treatment for Age Related Macular Degeneration indicates it is not recommended in the following situations:

Ranibizumab injection and pegaptanib sodium injection are not appropriate for treatment of non-neovascular or "dry" age-related macular degeneration.

Benefits Application

Please refer to certificate for availability of benefit. This guideline relates only to the services or supplies described herein. Benefits may vary according to benefit design; therefore certificate language should be reviewed before applying the terms of the policy.

Billing/Coding/Physician Documentation Information

This policy may apply to the following codes. Inclusion of a code in this section does not guarantee that it will be reimbursed. For further information on reimbursement guidelines, please see Administrative Policies on the Blue Cross Blue Shield of North Carolina web site at www.bcbsnc.com. They are listed in the Category Search on the Medical Policy search page.

Applicable codes: 67028, J2503

There is no specific code for Ranibizumab injection (Lucentis)

Medical Term Definitions

Angiogenesis

the formation and differentiation of blood vessels.

Fovea

a small rodless area of the retina that affords the sharpest vision because the layers of the retina spread aside to let light fall directly on the cones, which are the cells that give the clearest vision.

Macula

small centralized area of the retina responsible for acute central vision. Damage to this portion of the retina severely limits a patient's ability to read, recognize faces and perform any other task that requires straight-ahead vision.

Retina

the part of the eye that carries light and images to the brain through the optic nerve.

Policy: Treatment for Age Related Macular Degeneration

Scientific Background and Reference Sources

BlueCross BlueShield Association (BCBSA), Technology Evaluation Center (TEC). Special report: Current and evolving strategies in the treatment of age-related macular degeneration. TEC Assessment Program, Vol. 20, No. 11. December 2005. Retrieved on 8/1/06 from http://blueweb.bcbs.com/global_assets/special_content/tec_assessments/vol20/20_11.pdf

U.S. Food and Drug Administration (FDA). FDA Approves New Biologic Treatment for Wet Age-Related Macular Degeneration. FDA News. P04-110. December 20, 2004. Retrieved on 11/7/06 from <http://www.fda.gov/bbs/topics/news/2004/new01143.html>

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U.S. Food and Drug Administration (FDA). Label and Approval History. Drug name: Macugen (Brand Name Drug). Retrieved on 9/11/06 from http://www.accessdata.fda.gov/scripts/cder/drugsatfda/index.cfm?fuseaction=Search.Label_ApprovalHistory#applist

U.S. Food and Drug Administration (FDA). Label and Approval History. Drug name: Lucentis (Brand Name Drug) Retrieved on 9/8/06 from <http://www.accessdata.fda.gov/scripts/cder/drugsatfda/index.cfm?fuseaction=Search.DrugDetails>

ECRI. Health Technology Assessment Information Service (HTAIS). Vascular Endothelial Growth Factor (VEGF) Inhibitors for the Treatment of Neovascular Age-related Macular Degeneration. Hotline Response Updated 9/21/06. Retrieved on 11/10/06 from http://www.ta.ecri.org/Hotline/Prod/summary/detail.aspx?e=6&doc_id=8534&q=VEGF&nm

Specialty Matched Consultant Advisory Panel - 1/25/07

Policy Implementation/Update Information

12/11/06 New Evidence Based Guideline issued.

2/26/07 Specialty Matched Consultant Advisory Panel review. No changes to guidelines. Reference source added.

Medical policy is not an authorization, certification, explanation of benefits or a contract. Benefits and eligibility are determined before medical guidelines and payment guidelines are applied. Benefits are determined by the group contract and subscriber certificate that is in effect at the time services are rendered. This document is solely provided for informational purposes only and is based on research of current medical literature and review of common medical practices in the treatment and diagnosis of disease. Medical practices and knowledge are constantly changing and BCBSNC reserves the right to review and revise its medical policies periodically.