Clinical Policy: Repair of Retinal Detachment

Reference Number: CP.VP.54
Last Review Date: 01/2022

Coding Implications
Revision Log

See Important Reminder at the end of this policy for important regulatory and legal information.

Description

The patient with retinal detachment may lose a portion or all of the vision in the involved eye, resulting in a significant reduction in visual performance and an inability to function at his or her occupation and other activities of daily living. Retinal detachment often requires surgical repair. This policy describes the medical necessity requirements for repair of retinal detachment.

Policy/Criteria

I. It is the policy of health plans affiliated with Centene Corporation® (Centene) that repair of retinal detachment is **medically necessary** for the following indications:
   A. Retinal detachment associated with diabetic retinopathy
   B. Retinal detachment associated with a single or multiple retinal breaks, tears or retinal dialysis
   C. Retinal detachments associated with serous, tractional or hemorrhagic etiology
   D. Retinal detachment associated with myopic degeneration

Background

A retinal detachment is a separation of the sensory retina from the underlying retinal pigment epithelium. The incidence of phakic nontraumatic retinal detachment in the general population is about 1 in 10,000 persons per year (0.01 percent). The most common risk factors for retinal detachments are myopia (40%-55%), aphakia (30%-40%), and ocular trauma (10%-20%). Patients whose histories include retinal detachment in one eye are at increased risk for retinal detachment in the fellow eye. There are numerous variations in the basic pathogenesis of a retinal detachment. They include developmental factors (e.g., myopia and Marfan syndrome) that affect the overall size and shape of the globe, vitreoretinal disorders (e.g., coloboma and retinal dysplasia), metabolic disease (e.g., diabetic retinopathy), vascular disease (e.g., sickle cell disease), trauma, inflammation, degenerative conditions, and neoplasms. Retinal detachments can be classified as rhegmatogenous or nonrhegmatogenous:

A. Rhegmatogenous Retinal Detachment: The most common type of retinal detachment, rhegmatogenous, results from a break in the sensory retina. The break is most often caused by vitreous traction on the surface of the retina. This traction physically pulls a small section of the sensory retina away from the pigment epithelium, resulting in what is called a "retinal tear." Traction at the site of a tear can initiate retinal detachment surrounding the tear by pulling on the surface of the adjacent retina. The break in the retina may also allow fluid from the vitreous cavity to percolate into the potential subretinal space. Thus, a rhegmatogenous retinal detachment caused by a retinal tear is the result of both vitreous traction and fluid ingress between the sensory retina and the pigment epithelium. Treatment options for rhegmatogenous retinal detachments and tractional retinal detachments are surgical and include pneumatic retinopexy, scleral buckle, and vitrectomy
B. Nonrhegmatogenous Retinal Detachment: The second type of retinal detachment, nonrhegmatogenous, usually results from the accumulation of exudate or transudate in the potential subretinal space, rather than from a retinal break. Sometimes a nonrhegmatogenous

retinal detachment is caused by sheer traction, without the production of a retinal tear. Other etiologies of this type of detachment include chorioretinitis, metastatic choroidal tumor, choroidal effusion, retinal angioma, Harada's disease, pars planitis, sympathetic ophthalmia, eclampsia, and trauma. These procedures are indicated for anatomical detachment of the neural retina. When the retina detaches, it lifts, separating it from its nourishing blood supply of the underlying choroid and resulting in loss of vision. Various surgical techniques have been described through the years including (combinations of) scleral buckling procedures, vitrectomy, air fluid exchange, injection of vitreous substitutes, intraocular silicone oil, retinal tacks, diathermy, cryopexy, laser photocoagulation, drainage of subretinal fluid, etc. It is common for patients who undergo one of these retinal reattachment operations to need revision of the procedure during the global period to effect anatomic reattachment.

Treatment for retinal detachment consists of creating an effective chorioretinal adhesion to prevent leakage of fluid between the sensory retina and the underlying pigment epithelium. Whenever the macula is threatened by the advancing detachment, it should be treated as soon as possible to prevent loss of central vision. Common surgical treatments used to repair retinal detachments are outlined below.

- Laser photocoagulation or cryotherapy can be used to create a scar that attaches the surrounding retina to the underlying choroid to prevent a subsequent retinal detachment. The use of lasers is an important method for treating and preventing retinal detachment, mainly for treating peripheral retinal degeneration and closed retinal hiatuses, preventing retinal detachment in denatured areas and promoting retinal restoration. The light energy of a laser is absorbed by the hemoglobin or uveal pigment in the retina and vascular tissues and transformed into heat energy, resulting in tissue degeneration and coagulation. At the same time, the retinal pigment epithelium in the area of photocoagulation is temporarily damaged, and the passive motion of the subretinal fluids is accelerated, causing a decrease in uveal effusion and increased retinal adhesion, which finally close the hiatus.
- A scleral buckle results in close apposition of the retinal tear to the retinopexy treated area and has the added effect of reducing transvitreal traction. The primary anatomical success rate for scleral buckle surgery is found to be between 70% and 92%. There are various advantages of scleral buckle surgery, such as ease of operation, reliable localization, low infection rate, and enhanced control of condensation time and condensation intensity. At present, the most commonly used external scleral surgery involves a scleral ring, scleral pad and minimal external pressure.
- A pneumatic retinopexy procedure begins with cryotherapy to freeze and seal the area around the retinal tear. Then, a gas bubble is injected through the sclera into the vitreous cavity to press against the retinal tear for reattachment. Pneumatic retinopexy is the least invasive form of surgery and can reduce recurrence rates and shorten recovery time. However, postoperatively, patients must remain in certain positions to ensure retinal fixation, attend follow-up visits soon after surgery and avoid immediate air travel.
- Expanding gases, air injection, silicone oil injections have been shown to be effective in certain situations. Pars plana vitrectomy is a preferred surgical procedure for complex retinal detachment cases. Not only does this procedure remove the vitreous traction on the retina, but it also removes any opaque mesenchyme, thereby optimizing conditions for examination and treatment. After vitreous excision, a substitute substance is injected to restore the retina. Clinical

vitreous substitutes include certain liquids and gases. Silicone oil, perfluorocarbon solution, and other liquids have been used as substitutes.

Coding Implications

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CPT® Codes	Description
67101	Repair of retinal detachment, including drainage of subretinal fluid when performed; cryotherapy
67105	Repair of retinal detachment, including drainage of subretinal fluid when performed; photocoagulation
67107	Repair of retinal detachment; scleral buckling (such as lamellar scleral dissection, imbrication or encircling procedure), including, when performed, implant, cryotherapy, photocoagulation, and drainage of subretinal fluid
67108	Repair of retinal detachment; with vitrectomy, any method, including, when performed, air or gas tamponade, focal endolaser photocoagulation, cryotherapy, drainage of subretinal fluid, scleral buckling, and/or removal of lens by same technique
67110	Repair of retinal detachment; by injection of air or other gas (e.g., pneumatic retinopexy)
67113	Repair of complex retinal detachment (e.g., proliferative vitreoretinopathy, stage C-1 or greater, diabetic traction retinal detachment, retinopathy of prematurity, retinal tear of greater than 90 degrees), with vitrectomy and membrane peeling, including, when performed, air, gas, or silicone oil tamponade, cryotherapy, endolaser photocoagulation, drainage of subretinal fluid, scleral buckling, and/or removal of lens

ICD-10-CM Diagnosis Codes that Support Coverage Criteria

+ Indicates a code requiring an additional character

ICD-10-CM Code	Description
E08.3521	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye
E08.3522	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye
E08.3523	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral

ICD-10-CM Code	Description
E08.3531	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, right eye
E08.3532	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye
E08.3533	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, bilateral
E08.3541	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye
E08.3542	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye
E08.3543	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, bilateral
E09.3521	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye
E09.3522	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye
E09.3523	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral
E09.3531	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, right eye
E09.3532	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye
E09.3533	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, bilateral
E09.3541	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye
E09.3542	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye
E09.3543	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, bilateral
E10.3521	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye
E10.3522	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye
E10.3523	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral

ICD-10-CM Code	Description
E10.3531	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, right eye
E10.3532	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye
E10.3533	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, bilateral
E10.3541	Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye
E10.3542	Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye
E10.3543	Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, bilateral
E11.3521	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye
E11.3522	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye
E11.3523	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral
E11.3531	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, right eye
E11.3532	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye
E11.3533	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, bilateral
E11.3541	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye
E11.3542	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye
E11.3543	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, bilateral
E13.3521	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye
E13.3522	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye
E13.3523	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral
E13.3531	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, right eye
E13.3532	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye
E13.3533	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, bilateral

ICD-10-CM Code	Description
E13.3541	Other specified diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye
E13.3542	Other specified diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye
E13.3543	Other specified diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, bilateral
H33.011	Retinal detachment with single break, right eye
H33.012	Retinal detachment with single break, left eye
H33.013	Retinal detachment with single break, bilateral
H33.021	Retinal detachment with multiple breaks, right eye
H33.022	Retinal detachment with multiple breaks, left eye
H33.023	Retinal detachment with multiple breaks, bilateral
H33.031	Retinal detachment with giant retinal tear, right eye
H33.032	Retinal detachment with giant retinal tear, left eye
H33.033	Retinal detachment with giant retinal tear, bilateral
H33.041	Retinal detachment with retinal dialysis, right eye
H33.042	Retinal detachment with retinal dialysis, left eye
H33.043	Retinal detachment with retinal dialysis, bilateral
H33.051	Total retinal detachment, right eye
H33.052	Total retinal detachment, left eye
H33.053	Total retinal detachment, bilateral
H33.21	Serous retinal detachment, right eye
H33.22	Serous retinal detachment, left eye
H33.23	Serous retinal detachment, bilateral
H33.41	Traction detachment of retina, right eye
H33.42	Traction detachment of retina, left eye
H33.43	Traction detachment of retina, bilateral
H35.721	Serous detachment of retinal pigment epithelium, right eye
H35.722	Serous detachment of retinal pigment epithelium, left eye
H35.723	Serous detachment of retinal pigment epithelium, bilateral
H35.731	Hemorrhagic detachment of retinal pigment epithelium, right eye
H35.732	Hemorrhagic detachment of retinal pigment epithelium, left eye
H35.733	Hemorrhagic detachment of retinal pigment epithelium, bilateral
H44.2C1	Degenerative myopia with retinal detachment, right eye
H44.2C2	Degenerative myopia with retinal detachment, left eye
H44.2C3	Degenerative myopia with retinal detachment, bilateral

Reviews, Revisions, and Approvals	Date	Approval Date
Annual Review	12/2019	12/2019
Converted to new template	07/2020	10/2020
Annual Review	12/2020	12/2020
Annual Review	12/2021	01/2022

References

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2. Care of the Patient with Retinal Detachment And Related Peripheral Vitreoretinal Disease Prepared by the American Optometric Association Consensus Panel on Care of the Patient with Retinal Detachment and Related Peripheral Vitreoretinal Disease: Approved by the AOA Board of Trustees April 27, 1995(1st ed). Reviewed April 1998, Revised June 1999, Reviewed 2004.
3. Thomas J. Wubben, MD, PhD, Cagri G. Besirli, MD, PhD, David N. Zacks, MD, PhD. Pharmacotherapies for Retinal Detachment. Published: April 01, 2016. Journal of Ophthalmology. DOI: https://doi.org/10.1016/j.ophtha.2016.02.040
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5. Li Liao and Xiao-Hua Zhu. Advances in the treatment of rhegmatogenous retinal detachment. International Journal of Ophthalmology: 2019; 12(4): 660–667.

Important Reminder

This clinical policy has been developed by appropriately experienced and licensed health care professionals based on a review and consideration of currently available generally accepted standards of medical practice; peer-reviewed medical literature; government agency/program approval status; evidence-based guidelines and positions of leading national health professional organizations; views of physicians practicing in relevant clinical areas affected by this clinical policy; and other available clinical information. The Health Plan makes no representations and accepts no liability with respect to the content of any external information used or relied upon in developing this clinical policy. This clinical policy is consistent with standards of medical practice current at the time that this clinical policy was approved. "Health Plan" means a health plan that has adopted this clinical policy and that is operated or administered, in whole or in part, by Centene Management Company, LLC, or any of such health plan's affiliates, as applicable.

The purpose of this clinical policy is to provide a guide to medical necessity, which is a component of the guidelines used to assist in making coverage decisions and administering benefits. It does not constitute a contract or guarantee regarding payment or results. Coverage decisions and the administration of benefits are subject to all terms, conditions, exclusions and limitations of the coverage documents (e.g., evidence of coverage, certificate of coverage, policy, contract of insurance, etc.), as

well as to state and federal requirements and applicable Health Plan-level administrative policies and procedures.

This clinical policy is effective as of the date determined by the Health Plan. The date of posting may not be the effective date of this clinical policy. This clinical policy may be subject to applicable legal and regulatory requirements relating to provider notification. If there is a discrepancy between the effective date of this clinical policy and any applicable legal or regulatory requirement, the requirements of law and regulation shall govern. The Health Plan retains the right to change, amend or withdraw this clinical policy, and additional clinical policies may be developed and adopted as needed, at any time.

This clinical policy does not constitute medical advice, medical treatment or medical care. It is not intended to dictate to providers how to practice medicine. Providers are expected to exercise professional medical judgment in providing the most appropriate care, and are solely responsible for the medical advice and treatment of members. This clinical policy is not intended to recommend treatment for members. Members should consult with their treating physician in connection with diagnosis and treatment decisions.

Providers referred to in this clinical policy are independent contractors who exercise independent judgment and over whom the Health Plan has no control or right of control. Providers are not agents or employees of the Health Plan.

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Note: For Medicaid members, when state Medicaid coverage provisions conflict with the coverage provisions in this clinical policy, state Medicaid coverage provisions take precedence. Please refer to the state Medicaid manual for any coverage provisions pertaining to this clinical policy.

Note: For Medicare members, to ensure consistency with the Medicare National Coverage Determinations (NCD) and Local Coverage Determinations (LCD), all applicable NCDs, LCDs, and Medicare Coverage Articles should be reviewed prior to applying the criteria set forth in this clinical policy. Refer to the CMS website at http://www.cms.gov for additional information.