


UTILIZATION MANAGEMENT GUIDELINE – 9.03.507

Fundus Photography

Effective Date:	Mar. 1, 2024	RELATED MEDICAL POLICIES/GUIDELINES:
Last Revised:	Nov. 26, 2024	None
Replaces:	N/A	

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Introduction

The fundus of the eye is the back of the inner eye. Fundus photography uses a microscope with an attached camera to take a digital photograph of this area. The photo captures images of structures such as the retina (that converts light into signals the brain can understand), the optic nerve (that sends the signals to the brain), and the macula (allows a person to have sharp, clear vision straight ahead). Fundus photography is most useful when a disease is suspected, or a condition needs to be monitored. It's also useful to see if the retina has been damaged after eye trauma or injury. Fundus photography is unnecessary when a routine eye exam does not indicate any eye problems or symptoms. This policy describes when fundus photography may be considered medically necessary.

Note: The Introduction section is for your general knowledge and is not to be taken as policy coverage criteria. The rest of the policy uses specific words and concepts familiar to medical professionals. It is intended for providers. A provider can be a person, such as a doctor, nurse, psychologist, or dentist. A provider also can be a place where medical care is given, like a hospital, clinic, or lab. This policy informs them about when a service may be covered.

Coverage Guideline

Medical Necessity

Fundus Photography may be considered medically necessary to evaluate abnormalities in the fundus of the eye, follow the progression of a known disease or evaluate the response to treatment of an eye injury.

Indications that may need examination or monitoring include, but are not limited to the following:

- Abnormal electro-oculogram (EOG) or oculomotor studies
- Abnormal retinal function studies
- Abnormal visually evoked potential
- Age-related macular degeneration
- Anti-malarial therapy (e.g., Plaquenil, hydroxychloroquine, Aralen, or chloroquine) when fundus changes are noted during standard screening
 - For example, automated threshold visual field testing, optical coherence tomography, fundus auto fluorescence imaging, multifocal electro-retinogram (Note: the above drugs may also be taken as treatment for other conditions such as rheumatoid arthritis or lupus)
- Autoimmune disease involving the eye
 - For example, systemic lupus erythematosus, rheumatoid arthritis and other inflammatory polyarthropathies
- Benign neoplasm of the eye, adnexa, and cranial nerves
- Carcinoma in situ of the eye
- Choroid disorders
 - For example, chorioretinal inflammation
- Color vision deficiencies
- Congenital glaucoma
- Suspected congenital anomalies of the posterior segment of the eye
- Other congenital corneal malformations (Peters anomaly)
- Diabetic retinopathy
- Disorders of aromatic amino-acid metabolism affecting the fundus
- Disorders of globe
- Disorders of optic nerve and visual pathways
 - For example, multiple sclerosis
- Glaucoma
- Glaucoma suspected/pre-glaucoma when consistently elevated intraocular pressure is documented
- Infection of the eye
 - For example, endophthalmitis, histoplasmosis, human immunodeficiency virus (HIV), syphilis, cytomegalovirus, congenital rubella, toxoplasmosis
- Neoplasm of the choroid, cranial nerves, eyeball, or retina



- Ocular trauma or foreign body in the eye
- Pseudotumor cerebri (high pressure within the skull for no apparent reason)
- Retinal detachment and retinal defects
- Retinopathy of prematurity (ROP) for infants less than 1500 grams or born at 30 weeks gestation or less
- Sickle-cell anemia
- Tuberosus sclerosis
- Visual field exam abnormality when the study results will change the treatment plan

Fundus photography is considered not medically necessary when the routine ophthalmology (eye) exam shows normal clinical findings.

Fundus photography is considered not medically necessary when no symptoms are present.

Fundus photography is considered not medically necessary to routinely screen for eye (ocular) disorders. Remote imaging used to detect retinal disease is considered screening.

Documentation Requirements

The medical records submitted for review should document that medical necessity criteria are met, including detailed history and physical supporting eye abnormalities or a known condition that needs to be monitored, or to follow up on the response to treatment of an eye injury. Any changes in management because of the findings should also be documented.

Coding

Code	Descriptor
CPT	
92250	Fundus photography with interpretation and report
ICD-10 Diagnosis Codes - Covered	
A50.01	Early congenital syphilitic oculopathy
A50.30	Late congenital syphilitic oculopathy, unspecified
A50.44	Late congenital syphilitic optic nerve atrophy
A51.43	Secondary syphilitic oculopathy



Code	Descriptor
A52.15	Late syphilitic neuropathy
A52.71	Late syphilitic oculopathy
B20	Human immunodeficiency virus [HIV] disease
B25.0 – B25.9	Cytomegaloviral disease
B39.4 – B39.9	Histoplasmosis
B50.0 – B52.9	Malaria
B58.00 – B58.09	Toxoplasma oculopathy
C69.00 – C69.92	Malignant neoplasm of eye and adnexa
C79.49	Secondary malignant neoplasm of other parts of nervous system
D09.20 – D09.22	Carcinoma in situ of eye
D31.00 – D31.92	Benign neoplasm of eye and adnexa
D33.3	Benign neoplasm of cranial nerves
D49.81	Neoplasm of unspecified behavior of retina and choroid
D57.00 – D57.819	Sickle-cell disorders
E08.00 – E11.9	Diabetes mellitus
G35	Multiple sclerosis
G93.2	Benign intracranial hypertension (pseudotumor cerebri)
H27.10 – H27.119	Subluxation of lens
H27.131 - H27.139	Posterior dislocation of lens
H30.001 – H30.93	Chorioretinal inflammation
H31.00 – H31.9	Other diseases of choroid
H32	Chorioretinal disorders in diseases classified elsewhere
H33.001 – H33.8	Retinal detachment and breaks
H34.00 – H34.9	Retinal vascular occlusions
H35.00 – H35.9	Other retinal disorders
H36	Retinal disorders in diseases classified elsewhere



Code	Descriptor
H40.001 – H40.9	Glaucoma
H42	Glaucoma in diseases classified elsewhere
H43.00 – H43.9	Disorders of vitreous body
H44.001 – H44.9	Disorders of globe
H46.00 – H47.9	Disorders of optic nerve and visual pathways
H53.50 – H53.59	Color vision deficiencies
H59.031 – H59.039	Cystoid macular edema following cataract surgery
L93.0 – L93.2	Lupus erythematosus
M05.00 – M14.89	Rheumatoid arthritis and inflammatory polyarthropathies
M32.0 – M32.9	Systemic lupus erythematosus (SLE)
M35.00	Sjogren syndrome, unspecified
M35.01	Sjogren syndrome with keratoconjunctivitis
P35.0 – P35.9	Congenital viral diseases (congenital rubella syndrome)
P37.0 – P37.9	Other congenital infectious and parasitic diseases
Q13.4	Other congenital corneal malformations (Peters anomaly)
Q14.0 – Q14.9	Congenital malformations of posterior segment of eye
Q15.0	Congenital glaucoma
Q85.1	Tuberous sclerosis
Q85.8 – Q85.9	Other and unspecified phakomatoses, not elsewhere classified
Q87.0	Congenital malformation syndromes predominantly affecting facial appearance
Q87.42	Marfan's syndrome with ocular manifestations
Q87.89	Other specified congenital malformation syndromes, not elsewhere classified
Q89.8	Other specified congenital malformations
R94.110 – R94.118	Abnormal results of function studies of eye
S05.00XA – S05.92XS	Injury of eye and orbit
T37.2X1A-T37.2X5S	Poisoning by antimalarials and drugs acting on other blood protozoa NOS



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Related Information

In order to be a covered service, the results from fundus photography must have a direct impact on the decision-making related to the individual's medical care and treatment. In general, fundus photographs are not needed to confirm the presence of a condition but are necessary in determining the progression of a known disease that affects the eye.

The term "retinal fundus" means the inside or back of the eyeball that is seen through the pupil during a dilated eye examination. Fundus photography uses a special camera to photograph structures behind the lens of the eye including the choroid, optic nerve, retina and vitreous. The image can be either digital or a hard copy photograph.

Fundus photography is used to evaluate and document vascular and structural changes related to eye conditions not part of a routine screening eye examination. Some of these conditions include choroid disturbances, diabetic retinopathy, glaucoma, macular degeneration, multiple sclerosis or other central nervous system abnormalities, and tumors of the retina.

A comprehensive eye examination includes evaluation of any signs and symptoms present at the time of the office visit. Signs and symptoms involving the eye can be divided into three basic categories: abnormalities of vision, abnormalities of eye appearance, and abnormalities of eye feelings/sensation such as pain and discomfort.

Individuals without any signs or symptoms should not have routine imaging studies of their eyes if the only goal is to document normal eye anatomy (see Practice Guidelines and Position Statements directly below).

Evidence Review



Practice Guidelines and Position Statements

American Academy of Ophthalmology (AAO)

The AAO in 2013 recommended against imaging tests for individuals without symptoms or signs of significant eye disease. In their statement for [ChoosingWisely](#) they stated the following:

If patients do not have symptoms or signs of significant disease pathology, then clinical imaging tests are not generally needed because a comprehensive history and physical examination will usually reveal if eye disease is present or is getting worse. Examples of routine imaging include visual-field testing; optical coherence tomography (OCT) testing; retinal imaging of patients with diabetes; and neuroimaging or fundus photography. If symptoms or signs of disease are present, then imaging tests may be needed to evaluate further and to help in treatment planning.

All AAO Preferred Practice Pattern (PPP) guidelines are available at:

<http://www.aaojournal.org/content/preferred-practice-pattern> Accessed January 30, 2024.

Institute for Clinical Systems Improvement (ICSI)

The ICSI guideline (Sixteenth Edition/July 2014) for Diagnosis and management of type 2 diabetes mellitus (T2DM) in adults recommended the following:

A dilated eye examination for diabetic eye disease performed by an ophthalmologist or optometrist is recommended annually for patients with T2DM. Less frequent exams (every two to three years) may be considered in the setting of a normal eye exam. The role of fundus photography is still being considered but does not replace a comprehensive exam.

Available at URL: <https://www.icsi.org/wp-content/uploads/2019/02/Diabetes.pdf>

Accessed January 30, 2024.

References

1. Bernardes R, Serranho P, Lobo C. Digital ocular fundus imaging: a review. *Ophthalmologica*. 2011; 226(4):161-181. PMID: 21952522.
2. American Academy of Ophthalmology (AAO). Age-related macular degeneration. Preferred Practice Pattern. San Francisco, CA: AAO; 2019. [https://www.aaojournal.org/article/S0161-6420\(19\)32091-3/pdf](https://www.aaojournal.org/article/S0161-6420(19)32091-3/pdf) Accessed January 30, 2024.



3. American Academy of Ophthalmology (AAO). Primary open-angle glaucoma. Preferred Practice Pattern. San Francisco, CA: AAO; 2016. [https://www.aajournal.org/article/S0161-6420\(15\)01276-2/pdf](https://www.aajournal.org/article/S0161-6420(15)01276-2/pdf) Accessed January 30, 2024.
4. American Academy of Ophthalmology (AAO). Primary open-angle glaucoma suspect. Preferred Practice Pattern. San Francisco, CA: AAO; 2016. [https://www.aajournal.org/article/S0161-6420\(15\)01278-6/pdf](https://www.aajournal.org/article/S0161-6420(15)01278-6/pdf) Accessed January 30, 2024.
5. American Academy of Ophthalmology (AAO). Primary angle closure. Preferred Practice Pattern. San Francisco, CA: AAO; 2016. [https://www.aajournal.org/article/S0161-6420\(15\)01271-3/pdf](https://www.aajournal.org/article/S0161-6420(15)01271-3/pdf) Accessed January 30, 2024.
6. American Academy of Ophthalmology (AAO). Diabetic retinopathy. Preferred Practice Pattern. San Francisco, CA: AAO; 2019 [https://www.aajournal.org/article/S0161-6420\(19\)32092-5/pdf](https://www.aajournal.org/article/S0161-6420(19)32092-5/pdf) Accessed January 30, 2024.
7. Soloman, S, Chew E, Duh E, et al. Diabetic Retinopathy: A Position Statement by the American Diabetes Association. Diabetes Care 2017; 40 (3): 412-418. PMID: 28223445.
8. Marmor MF, Kellner U, Lai TY, et al. Revised recommendations on screening for chloroquine and hydroxychloroquine retinopathy. Ophthalmology. 2011; 118(2):415-422.
9. Marmoor MF, Kellner U, Lai TY, et al. Recommendations on screening for chloroquine and hydroxychloroquine retinopathy (2016 Revision). Ophthalmology. 2016; Jun; 123 (6): 1386-94. PMID 26992838
10. Jiying Hu, Ruiting Chen, Ying Lu, et al. Single-field non-mydriatic fundus photography for diabetic retinopathy screening: a systematic review and meta-analysis. Ophthalmic Res. 2019; 62(2):61-67. PMID: 31067550.
11. Centers for Medicare & Medicare Services (CMS). Local Coverage Determination (LCD): Ophthalmology: Posterior Segment Imaging (Extended Ophthalmoscopy and Fundus photography) (L34399). . Baltimore, MD: CMS; effective October 1, 2015. Revised May 25, 2023. <https://www.cms.gov/medicare-coverage-database/view/lcd.aspx?lcdid=34399&ver=26&keyword=Fundus%20Photography&keywordType=starts&areald=all&docType=NCA,CAL,NCD,MEDCAC,TA,MCD,6,3,5,1,F,P&contractOption=all&sortBy=relevance&bc=1>. Accessed January 30, 2024.

History

Date	Comments
04/01/16	New UM Guideline, approved March 8, 2016. Add to Vision section. Fundus photography may be considered medically necessary for the indications listed in the guideline. Routine fundus photography or for asymptomatic patients is not medically necessary because it is not clinically indicated based on the specialty practice guidelines. This policy will be effective August 1, 2016, following 90-day provider notification.
07/01/16	Interim Review, approved June 14, 2016. Policy updated to indicate screening for eye (ocular) disorders as not medically necessary; previously listed as investigational. CPT codes removed with the exception of 92250.
02/01/17	Interim Review, approved January 10, 2017. Added clarification that glaucoma-suspected/pre-glaucoma is evidenced by abnormal results from the usual screening test for glaucoma. Indications simplified and put in alphabetical order. Practice Guideline added from the ICSI added.



Date	Comments
07/01/17	Annual Review, approved June 6, 2017. Policy updated with literature review. Clarifying edits made to policy section. Investigational policy statement removed; The intent of this policy is medically necessary when criteria are met, not medically necessary when criteria are not met. Clarified Plaquenil as anti-malarial drug.
08/15/17	Updated Coding table to include covered diagnosis codes and code ranges.
05/18/18	Coding update, removed diagnosis code Z79.899.
06/01/18	Annual Review, approved May 3, 2018. Medical necessity statements edited for clarity. Intent did not change. Reference 1 added. Otherwise policy statements unchanged. Added diagnosis codes M35.00, M35.01, and Q15.0 to policy.
04/01/19	Annual Review, approved March 19, 2019. Reference 2 added. Minor edits of covered diagnoses for clarity; otherwise policy statement unchanged.
04/01/20	Annual Review, approved March 3, 2020. UM Guideline reviewed. References added. Guideline statements unchanged.
02/01/21	Annual Review, approved January 21, 2021. UM Guideline reviewed. Guideline statements unchanged.
10/01/21	Coding update, Updates descriptions of diagnosis codes M35.00 and M35.01.
03/01/22	Annual Review, approved February 7, 2022. UM Guideline reviewed. References updated. Minor edit for clarity; otherwise guideline statements unchanged.
02/01/23	Annual Review, approved January 9, 2023. UM Guideline reviewed. References updated. Changed the wording from "patient" to "individual" throughout the policy for standardization.
03/01/24	Annual Review, approved February 26, 2024. Policy reviewed. Reference added. Added benign neoplasm of the eye, adnexa, and cranial nerves to the list of indications for which fundus photography is considered medically necessary to align with diagnosis codes listed, otherwise guideline statements unchanged. Added HCPCS code T37.2X1A-T37.2X5S and removed HCPCS codes E70.20-E70.9 and Q99.2.
11/26/24	Minor update to clarify code type add/removal from March 1, 2024. Code update made on March 1, 2024, was made to ICD-10-CM diagnosis codes-not HCPCS codes.

Disclaimer: This medical policy is a guide in evaluating the medical necessity of a particular service or treatment. The Company adopts policies after careful review of published peer-reviewed scientific literature, national guidelines and local standards of practice. Since medical technology is constantly changing, the Company reserves the right to review and update policies as appropriate. Member contracts differ in their benefits. Always consult the member benefit booklet or contact a member service representative to determine coverage for a specific medical service or supply. CPT codes, descriptions and materials are copyrighted by the American Medical Association (AMA). ©2024 Premera All Rights Reserved.

Scope: Medical policies are systematically developed guidelines that serve as a resource for Company staff when determining coverage for specific medical procedures, drugs or devices. Coverage for medical services is subject to



the limits and conditions of the member benefit plan. Members and their providers should consult the member benefit booklet or contact a customer service representative to determine whether there are any benefit limitations applicable to this service or supply. This medical policy does not apply to Medicare Advantage.

