Corcoran
Consulting
Group

A Division of Ardare Corporation

Fundus Photography Reimbursement

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Fundus Photography Reimbursement

by

Corcoran Consulting Group
A Division of Ardare Corporation
685 E. Carnegie Drive ~ Suite 270
San Bernardino, California 92408

(800) 399-6565
www.corcoranccg.com

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Objective: *This report is provided as a general discussion of billing and documentation for fundus photography and related issues. Variations in coverage and payment policies among Medicare Administrative Contractors (MACs) may occur which are not described here. Other non-Medicare payers may promulgate policies that differ from those of Medicare and its contractors. The user is strongly encouraged to review federal and state laws, regulations, code sets (including ICD-10), and official instructions of the Centers for Medicare & Medicaid Services (CMS), the MACs, and other third party payers.*

Notice: *All fee schedule amounts noted in this document are the national Medicare allowed amounts. Actual fee schedule amounts and payments vary by locality.*

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INTRODUCTION

This monograph describes reimbursement for fundus photography using epipole's epiCam portable fundus camera. Fundus photography is a common ophthalmic diagnostic test useful for medical monitoring, screening, and telemedicine.

Much of the information in this document is taken from official publications of the Medicare program. The reader is encouraged to check with the local Medicare Administrative Contractor (MAC) for additional information and instructions. For other third party payers, we have used the coding concepts contained in the CPT Professional Codebook, published by the American Medical Association; diagnosis codes are from ICD-10-CM. Documentation of a diagnostic test and its medical rationale is key to reimbursement, so we describe the required elements in detail.

Since economic analyses are a necessary part of any capital budgeting decision, we incorporated Medicare's payment rates for fundus imaging and recent Medicare utilization rates.

THE DEVICE

The epiCam is a handheld, lightweight, portable, non-mydriatic, fundus camera that can also be used on patients who are dilated. The epiCam can capture up to a 140° field of view using the pan and tilt feature.[1] It uses epipole's video direct ophthalmoscopy (VDO) platform to capture live, high-resolution video footage of the retina at 10 frames per second. The camera images in multi-illuminant modes (deep red, amber, and full color) with a full-color touchscreen display that you control.

Figure 1 **epiCam Portable Fundus Camera**

[1] epipole home page. Link here. Accessed 02/02/23.

epiCam connects wirelessly to a Review Station for immediate review. With epipole's proprietary software, the user can review images, capture still images from video streams, annotate images, retrieve previous photos for side-by-side comparison, and create customizable reports. Images can be saved and exported for evaluation by a specialist, either within the clinic or via telemedicine.

INDICATIONS FOR USE

According to the American Academy of Ophthalmology's (AAO) Preferred Practice Patterns (PPP) for age-related macular degeneration,[2] primary open-angle glaucoma,[3] and diabetic retinopathy,[4] fundus photography provides objective documentation and is the best routine approach to establish a baseline for future comparisons.

Fundus photographs facilitate detailed evaluation of the optic nerve head, finding landmarks for retinal lesions, assist in determining the size of detachments, and evaluating dry age-related macular degeneration. The AAO's PPPs further point out that fundus photography is more reproducible than the physician's clinical examination for detecting posterior segment disease.

In general, fundus photography is performed to:

- evaluate abnormalities in the fundus,
- follow the progress of a disease,
- plan the treatment for a disease, and/or
- assess the therapeutic effect of recent surgery (*e.g.,* photocoagulation).

Merely documenting a static condition does not provide medical necessity for fundus photography.

Coverage Guidelines

Medical necessity for diagnostic testing begins with pertinent signs, symptoms, or medical history of a condition for which the examining physician needs additional information. A

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[2] American Academy of Ophthalmology. Preferred Practice Patterns, Age-Related Macular Degeneration. Link here. Accessed 02/02/23.

[3] American Academy of Ophthalmology. Preferred Practice Patterns, Primary Open-Angle Glaucoma. Link here. Accessed 02/02/23.

[4] American Academy of Ophthalmology. Preferred Practice Patterns, Diabetic Retinopathy. Link here. Accessed 02/02/23.

variety of disease entities justify testing (Table 1). It is important to note that MACs do not agree on a common list of covered diagnoses for each of these diagnostic tests. Furthermore, there is variability among non-Medicare payers for the same tests. Careful review of local coverage determinations (LCDs) and private payer policies is necessary.[5,6]

There is a longstanding National Coverage Determination (NCD 80.6)[7] for "Intraocular Photography" that notes Medicare finds it reasonable to perform photography of conditions such as "*macular degeneration, retinal neoplasms, choroid disturbances and diabetic retinopathy, or to identify glaucoma, multiple sclerosis and other central nervous system abnormalities*". It also states, "*This may not be an exhaustive list of all applicable Medicare benefit categories for this item or service*."

Medicare covers photography-related tests as an adjunct to the evaluation and management of a known disease. Images are taken as baseline documentation of a healthy eye or as preventive medicine to screen for potential disease are not covered, even if disease is identified.[8]

Repeated fundus photography is necessitated by disease progression, the advent of new disease, or planning for additional surgical treatment (*e.g.,* laser). Otherwise, repeated photos of the same, unchanged, condition are unwarranted.

Some payers and Medicare contractors place a restriction on how frequently they expect a test to be performed. In general, this and all other diagnostic tests are reimbursed when medically indicated and properly documented. Too-frequent testing can garner unwanted attention from Medicare and other payers.

National Government Services (NGS), the MAC for a number of states, notes the following for fundus photography, "*The test must be used in the medical decision making for the patient*".[9] NGS further states: "*All tests must include a written interpretation. If an interpretation is not included in the same medical record with the photograph, then both the technical and professional components will be considered not medically necessary ...*" [and] "*... if the study is performed as a screening service, it is not covered by Medicare.*"

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[5] A representative fundus photography policy may be found at National Governmental Services, Inc. LCD #L33567 at Ophthalmology: Posterior Segment Imaging (Extended Ophthalmology and Fundus Photography). Rev. Eff. date 10/01/19. Link here. Accessed 02/02/23.

[6] Another representative fundus photography policy may be found at Palmetto GBA #LCD L33467 at Ophthalmology: Extended Ophthalmoscopy and Fundus Photography. Rev. Eff. Date 10/24/19. Link here. Accessed 02/02/23.

[7] National Coverage Determination, Intraocular Photography (NCD 80.6). Effective date 09/01/79. Link here. Accessed 02/02/23.

[8] CFR 411.15(a)(1). Particular services excluded from coverage. Link here. Accessed 02/02/23.

[9] National Governmental Services, Inc. LCD #L33567 at Ophthalmology: Posterior Segment Imaging (Extended Ophthalmology and Fundus Photography). Rev. Eff. date 10/01/19. Link here. Accessed 02/02/23.

They also add that, *"… the ordering/ performance of fundus photography by eye specialists prior to a face-to-face encounter is similarly not covered or reimbursable."*

Table 1 **Common Diagnosis Codes for Fundus Photography**[10]

ICD-10	Description	ICD-10	Description
C69.2-	Malignant neoplasm of retina	H35.3-	Macular degeneration
C69.3-	Malignant neoplasm of choroid	H35.31-	Nonexudative macular degeneration
E10.3-, E11.3-	Diabetes with ophthalmic manifestations	H35.32-	Exudative macular degeneration
H44.6-	Foreign body, magnetic, intraocular	H35.35-	Cystoid macular degeneration
H44.7-	Foreign body, intraocular	H35.41-	Lattice degeneration
H33.1-	Retinoschisis	H35.54	RPE dystrophies
H33.3-	Retinal defects w/o detachment	H35.89	Retinal exudates and deposits
E10.3-, E11.3-	Background diabetic retinopathy	H35.82	Retinal ischemia
E10.35-, E11.35-	Proliferative diabetic retinopathy	H40.-	Glaucoma
H35.01-	Background retinopathy	H42	Glaucoma in diseases elsewhere classified (code first the underlying condition)
H35.03-	Hypertensive retinopathy	H47.1-	Papilledema
H35.02-	Exudative retinopathy	H47.2-	Optic atrophy
H35.09	Retinal microvascular abnormalities	H46.-	Optic neuritis and neuropathies
H35.06-	Retinal vasculitis	H47.0-	Disorders of optic nerve
H34.-	Retinal vascular occlusion	Q14.8	Fundus coloboma
H34.2-	Partial arterial occlusion	Q14.8	Congenital macular changes

[10] Listed codes are representative of covered diagnoses, but differences in payment policies exist for many payers. This list is neither exhaustive nor universally accepted. See your payer bulletins. An ending "dash" means a longer code may be required and contains greater specificity. Some policies may not use all the codes in a particular range as listed.

Palmetto GBA, the MAC for Virginia, West Virginia, and the Carolinas, notes, "… *medical necessity for fundus photography should guide a clinical decision.*"[11]

It has been observed that binocular indirect ophthalmoscopy, particularly on an uncooperative patient, may be poorly performed and miss abnormalities or disease, and that broader field-of-view imaging can help point the ophthalmologist or optometrist in the right direction where it identifies something suspicious. One study showed a 30% increase in retinal lesion discovery compared with traditional dilated fundus exam (DFE) alone.[12] In the AAO's PPP for Posterior Vitreous Detachment, Retinal Breaks, and Lattice Degeneration, they state, *"Wide-field color photography can detect some peripheral retinal breaks but does not replace careful ophthalmoscopy and may be useful in patients not able to tolerate the exam.*"[13] The LCD on fundus photography by NGS (#L33567) also states, *"Fundus photography is not a substitute for an annual dilated examination by a qualified professional.*"

Standing Orders

Standing orders for tests may improve office efficiency, but they can create problems with reimbursement. The Office of Inspector General (OIG) and the MACs have published several reports identifying standing orders as troublesome and problematic because they are routine screenings and non-covered services.[14] WPS states, *"Routine orders are orders for those services and treatments that are applied to patients who have the same or similar medical condition(s). These frequently called "routine, protocol or standing orders" are based on an assessment of the impact of a given condition in the population of patients with that condition (medical illness or injury) and are widely applied to those patients. Medicare defines any order(s) that does not specifically address an individual patient's unique illness, injury or medical status, as not reasonable and necessary. As is required by law, Medicare does not accept such "standing orders" as supporting medical necessity for the individual patient. Services related to population-based or condition-based orders are not reimbursable.*"[15] Another MAC, CGS, defines any order(s) *"that does not specifically address an individual patient's unique illness, injury or medical status, as not reasonable and necessary"*.[16] CMS states, "*… the physician must clearly document, in the*

[11] Palmetto GBA. LCD L33467 at Ophthalmology: Extended Ophthalmoscopy and Fundus Photography. Rev. Eff. Date 10/24/19. Link here. Accessed 02/02/23.

[12] Brown K, Sewell JM, Trempe C, et al. Comparison of image-assisted versus traditional fundus examination. *Eye Brain* 2013 Feb 13;5:1-8 Link here. Accessed 2/7/23

[13] American Academy of Ophthalmology. Preferred Practice Patterns, Posterior Vitreous Detachment, Retinal Breaks, and Lattice Degeneration. Link here. Accessed 02/02/23.

[14] Office of Inspector General. Report: St. Francis Hospital, Tulsa, OK. Estimated Medicare Overpayment. Published February 12, 2002. Link here. Accessed 02/02/23.

[15] WPS Government Health Administrators. Recognizing the Meaning of Standing Orders. Updated 11/29/21. Link here. Accessed 02/03/23.

[16] CGS Medicare. Fact Sheet. Lab Services/Orders. Link here. Accessed 02/03/23.

medical record, his or her intent that the test be performed." [17] Another MAC, Noridian, has issued useful guidance that reduces the most common problems with standing orders.[18] They state, *"Standing orders for **recurring*** [emphasis added] *diagnostic tests may be appropriate when all of the following conditions are met:*

1. *Each ordered test must be appropriate for the known or suspected diagnosis.*
2. *Each ordered test must be appropriate for the individual patient's clinical circumstances.*
3. *Each test performed must be necessary for the individual patient's management.*
4. *The frequency of repeated testing must not be greater than medically necessary.*
5. *The number of repeated studies must not be greater than medically necessary.*
6. *The diagnosis must be indicated for each test with sufficient clarity to permit accurate ICD-9-CM coding to the highest level of specificity.*
7. *The order for the recurring test must be renewed at least annually or sooner if required by state law or the patient's clinical circumstances.*
8. *The treating physician must review each test's result, making any indicated adjustments in frequency and number of repeated studies.*
9. *Documentation must demonstrate that all lab tests were reviewed and appropriate clinical action taken."*

Due to the inherent difficulties and likely challenges from Medicare and other payers, the reader should steer clear of standing orders for diagnostic tests under most circumstances. If you decide to use standing orders as a screening protocol, collect your fee from the beneficiary for a noncovered service. Use an Advance Beneficiary Notice of Noncoverage (ABN) or other financial waiver form to notify beneficiaries of their financial responsibility.

Screening

Some ophthalmologists and optometrists request tests for all patients prior to an eye exam as part of preventive medicine. Screening may be differentiated from other diagnostic testing by several features.

- It is not required by medical necessity; it is optional
- It is performed to check for diseases that are unsuspected and may otherwise go undetected.

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[17] CMS. Medicare Benefit Policy Manual, Chapter 15, §80.6.1. Link here. Accessed 02/03/23.

[18] Noridian Part A. Standing Orders. Published 09/19/11.

- The ophthalmologist or optometrist recommends testing prior to every complete eye examination without considering individual clinical signs or symptoms.
- Testing is performed by a technician before an individual order is issued by the examining/treating physician.
- All patients are screened unless they decline.

Remember, only the treating physician can order diagnostic tests - technicians cannot. Also, finding a disease on a screening test does not mean that it is eligible for reimbursement. It may lead to additional evaluation and management services, but not necessarily on the same day.

Telemedicine

The hallmark of telehealth is the utilization of information technology to provide healthcare and improve access to care. The publication, *Healthcare IT News*, predicts that telehealth will grow at a five-year compound annual growth rate of 56%.[19]

Likely, one area of growth will be screening for diabetic retinopathy. Diabetic eye disease is the leading cause of new-onset blindness in the United States. With early detection and treatment of diabetic eye disease, vision loss can be mitigated. Unfortunately, various resources indicate that only about 60% of diabetics receive an eye exam. Can remote imaging reduce the number of diabetic patients not being screened for eye disease? Many believe it can.

The standard of care for diabetic patients is an annual dilated eye exam by a qualified eye care provider.[20,21,22,23] Some patients may need seven standard fields, stereoscopic, color 30° fundus photos, which is the standard of care for photographing diabetic eye disease.[24] Recently, some experts have questioned whether annual eye exams are the most cost-

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[19] Marion, J.. Telehealth use expected to grow rapidly over two years. *Healthcare IT News*. April 11, 2008. Link here. Accessed 02/02/23.

[20] *All About Vision*. Diabetes and Diabetic Retinopathy: Q&A. Link here. Accessed 12/22/2022.

[21] American Academy of Ophthalmology. Preferred Practice Patterns, Diabetic Retinopathy. Link here. Accessed 02/02/23.

[22] Joslin Diabetes Center. Routine Eye Exams. Link here. Accessed 02/02/23.

[23] American Diabetes Association. Diabetic Retinopathy: A Position Statement by the American Diabetes Association. *Diabetes* Care 2017 Mar; 40(3): 412-418. Link here. Accessed 02/02/23.

[24] Fong, SD, et al. Diabetic Retinopathy. *Diabetes Care*. Vol 26, No Suppl 1 S99-S102. January 2003. Link here. Accessed 02/02/23.

effective way of screening for eye problems in diabetics and have suggested telemedicine as a plausible alternative.[25,26]

The use of remote imaging, especially for diabetics, is not new. Many centers already exist where patients receive fundus photos that are sent to a reading center for interpretation by an ophthalmologist or optometrist; a formal report is generated. Likely, this will expand in the future.

DOCUMENTATION

The descriptions in CPT for 92250 and 92228 include the phrase "*with interpretation and report.*"[27] What exactly is meant by this phrase, and what kind of chart note is required? This question takes on added urgency since insufficient chart documentation is reason enough to require repayment of any reimbursement.

Medicare Regulations and Guidance

The Medicare guidelines for the interpretation of diagnostic tests are discussed in the Medicare Claims Process Manual (MCPM).[28] CMS distinguishes between a "review" of a test and an "interpretation and report."

> *"Carriers generally distinguish between an "interpretation and report" of an x-ray or an EKG procedure and a "review" of the procedure. A professional component billing based on a review of the findings of these procedures, without a complete, written report similar to that which would be prepared by a specialist in the field, does not meet the conditions for separate payment of the service. This is because the review is already included in the ... E/M payment."*

The review of a test is not separately payable because it is part of an evaluation and management (E/M) service.

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25 Rein, DB, et al. The Cost-Effectiveness of Three Screening Alternatives for People with Diabetes with No or Early Diabetic Retinopathy. *Health Services Research*. Vol 46, Issue 5, p. 1534-1561. October 2011. Link here. Accessed 02/02/23.

26 Davis, RM et al. Telemedicine Improves Eye Examination Rates in Individuals with Diabetes. *Diabetes Care*. Vol 26, No 8, p. 2476. August 2003. Link here. Accessed 02/02/23.

27 American Medical Association. Current Procedural Terminology (CPT) 2023 Professional Edition.

28 Medicare Claims Process Manual (MCPM), Chapter 13, §100. Interpretation of Diagnostic Tests. Link here. Accessed 02/02/23.

> *"For example, a notation in the medical records saying "fx-tibia" or EKG-normal would not suffice as a separately payable interpretation and report of the procedure and should be considered a review of the findings payable through the E/M code. An "interpretation and report" should address the findings, relevant clinical issues, and comparative data (when available)."*

Simple, brief notations such as "normal" or "abnormal" are construed as a review of the test rather than as an interpretation and report. As a condition of payment,[29] 42 CFR 415.120 (a) states:

> ***"(a) Services to beneficiaries.*** *The carrier pays for radiology services furnished by a physician to a beneficiary on a fee schedule basis only if the services meet the conditions for fee schedule payment in § 415.102(a) and are identifiable, direct, and discrete diagnostic or therapeutic services furnished to an individual beneficiary, such as interpretation of x-ray plates, angiograms, myelograms, pyelograms, or ultrasound procedures. The carrier pays for interpretations only if there is a written report prepared for inclusion in the patient's medical record maintained by the hospital."*

The value of an "interpretation and report" derives from the answers to important questions about the diagnostic test.

- Physician's order – *Why is the test desired?*
- Date performed – *When was it performed?*
- Technician's initials – *Who did it?*
- Reliability of the test – *Was the test of any value?*
- Patient cooperation – *Was the patient at fault?*
- Test findings – *What are the results of the test?*
- Comparison – *How do today's results differ from prior test(s)?*
- Assessment, diagnosis – *What do the results mean?*
- Impact on treatment, prognosis – *What's next?*
- Physician's signature – *Who is the physician?*

In ophthalmology and optometry, tests such as fundus photography are more valuable for making decisions about treatment when there is a series. Then, the concept of "comparative data" cited above is particularly meaningful. Does the series demonstrate

[29] 42 CFR 415.120(a). Conditions for payment: Radiology services, to beneficiaries. Link here. Accessed 02/02/23.

disease progression? For a fundus photograph, the "interpretation and report" might read as follows.

- January 15, 20xx
- Technician: Mary Smith, COA
- Cloudy images due to cataracts
- Good patient cooperation
- Cupping OU; optic disc hemorrhage, OU
- POAG, shows progression since last visit
- Add another anti-glaucoma medication
- *Signed: I. C. Better, MD.*

Where to write?

An interpretation can be written on a separate page in the medical record or the blank space on the printout of the test result. Within an electronic medical record, we often find a designated spot to record the physician's interpretation of a test as a report.

If the interpretation is written as part of the office visit note, it might appear to be an element of the evaluation and management service. To keep it separate or differentiate it from the rest of the eye exam, surround the notations with a box and a title like "fundus photo report."

Timing

Ideally, the interpretation of a test follows immediately after the technical component is finished. In practice, there may be a delay; however, the delay should not be lengthy or affect patient care. Since fundus photography requires only general supervision,[30] and the physician need not be present during the test performance, the interpretation might take place the next day. If a weekend intervenes, there may be a two day delay.

It is important to note that CMS understands that delays are a fact of life and, in 2009, proposed regulations to require claims for reimbursement to identify on two separate lines the technical and professional components of a diagnostic test when performed on different dates of service. As a practical alternative, bill the entire test upon completion after the interpretation is documented in the medical record since it is not clear what diagnosis

[30] 42 CFR 410.32(b)(3)(i). Definition of general supervision. Link here. Accessed 02/02/23.

would be used for the technical component alone. Report the date of service as the day the technical component was completed; this will match the date on the fundus photos filed in your charts.

Payment Considerations

In the Medicare Physician Fee Schedule, different payment rates are established for the professional and technical components of a diagnostic test where there is discrete reimbursement for an "interpretation and report". Respectively, modifiers 26 and TC are used to make the distinction between the professional and technical portions of the test. As a practical matter, this segregation permits a technician or medical assistant to perform the technical component, with appropriate supervision; however, only the physician can interpret test results. When modifiers TC and 26 are not appended to a CPT code, then the payer understands that reimbursement is sought for both the technical and professional components together in a single payment.

SUPERVISION

Medicare's supervision rules for many ophthalmic diagnostic tests have been stable since July 1, 2001. Fundus photography requires *general* supervision. This means the procedure is furnished under the physician's overall direction and control, but the physician's presence is not required during performance of the test. Under general supervision rules, the training of the non-physician personnel who actually perform the diagnostic test and the maintenance of the necessary equipment and supplies are the continuing responsibility of the physician.[27]

BILLING ISSUES

Procedure Codes

The following CPT codes may be used to report testing with the epiCam.

92227 …... Imaging of retina for detection or monitoring of disease; with remote clinical staff review and report, unilateral or bilateral

92228 …... Imaging of retina for detection or monitoring of disease; with remote physician or other qualified health care professional interpretation and report, unilateral or bilateral

92250 ...… Fundus photography with interpretation and report

CPT 92227 and 92228 apply to telemedicine where the images are transmitted by the ordering physician, such as a family practice physician, to a competent reader for assessment.[31] CPT Assistant states, "*The work of the [ordering physician's] staff is considered part of the practice expense for these services. The clinical staff positions the patient before the retinal camera and obtains images of each eye. Aligning the pupil with the camera includes real-time adjustments to position, focus adjustment, and management of involuntary blepharospasm with the camera flash. Typically, between two and five images are taken per eye, focusing on the optic disc as well as the posterior pole with macula, vessels, and disc in focus. The camera is then repositioned to obtain images for the other eye.*"[32]

When the reader is a clinical staff person, the ordering physician reports 92227 on a claim. When the reader is a physician, either an ophthalmologist or optometrist, the ordering physician reports 92228. CPT instructs that 92227 and 92228 may not be reported on the same claim with OCT (92133, 92134), fundus photography (92250), other remote imaging (92227, 92228, 92229), or exam codes (920xx, 9920x).

Ophthalmologists and optometrists would not report 92227 or 92228 because they order and perform fundus photography (92250) and have no need of a remote reader. Prior to 2021 when CPT changed the description of these codes, other concepts were used to define them.

Modifiers

The following modifiers may be applicable on these claims.

AQ ……… Services provided in a Health Professional Shortage Area (HPSA, *Medicare modifier only; replaces QB and QU*)

GA ……… Medicare probably does not cover this service. Advance Beneficiary Notice of Noncoverage (ABN) signed (*Medicare modifier only*)

GY ……… Item or service statutorily excluded or does not meet the definition of any Medicare benefit or, for non-Medicare insurers, is not a contract benefit.

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[31] Hughes, C. Coding & Documentation. *Fam Pract Manag*. 2022;29(5):36 Link here. Accessed 02/07/23

[32] *CPT Assistant*, Coding Clarification: Remote Retinal Imaging Services. June 2021, p 8

GZ ……..… Medicare probably does not cover this service. No ABN on file (*Medicare modifier only*)

TC ……… Technical component of a diagnostic test

26 ………. Professional component of a diagnostic test

52 ………. Reduced service (*e.g.,* only one eye tested)

Sample Claims

Example 1 Age-related macular degeneration

During a dilated fundus exam of the posterior pole with binocular indirect ophthalmoscopy, a few small drusen were noted OU. You order fundus photography OU to establish the extent of the early stage, nonexudative age-related macular degeneration (AMD) and to permit re-evaluation at a later date. In addition to the exam (shown as 9xxxx), the claim will read as follows.

17 REFERRING/ORDERING PROVIDER	17a
J Emdy, MD	17b 12345678
19 ADDITIONAL CLAIM INFORMATION	
21 DIAGNOSIS OR NATURE OF ILLNESS OR INJURY	ICD Ind 0
A.H35.3131 B. C. D.	

24a DATES OF SERVICE FROM	TO	24b POS	24d PROCEDURES, SVCS CPT/HCPCS	MODIFIER	24e DX POINTER	24f $ CHARGES	24g UNIT	24i ID QUAL	24j RENDERING PROV ID
mm/dd/yyyy		11	9xxxx		A	xxx.xx	1	NPI	1234567890
mm/dd/yyyy		11	92250		A	xxx.xx	1	NPI	1234567890

One year later, the patient is seen and no change in the AMD is noted on the dilated fundus examination. Repeating the FP would not be warranted; the earlier photographs suffice.

Example 2 Diabetes with retinopathy

Your 74 y/o established Medicare patient with Type II diabetes on oral hypoglycemics presents for a yearly examination. You note an abnormal fundus with mild non-proliferative diabetic retinopathy; no macular edema is noted in either eye. For a more detailed evaluation and to permit re-evaluation at a later date, you order and perform fundus photos. In addition to the exam (shown as 9xxxx), the claim will read as follows.

17 REFERRING/ORDERING PROVIDER	17a
J Emdy, MD	17b 12345678
19 ADDITIONAL CLAIM INFORMATION	
21 DIAGNOSIS OR NATURE OF ILLNESS OR INJURY	ICD Ind 0
A. E11.3293 B. Z79.84 C. D.	

24a DATES OF SERVICE FROM	TO	24b POS	24d PROCEDURES, SVCS CPT/HCPCS	MODIFIER	24e DX POINTER	24f $ CHARGES	24g UNIT	24i ID QUAL	24j RENDERING PROV ID
mm/dd/yyyy		11	9xxxx		A, B	xxx.xx	1	NPI	1234567890
mm/dd/yyyy		11	92250		A, B	xxx.xx	1	NPI	1234567890

Example 3 Monocular photography

You are a retina specialist consulted by another eyecare provider concerning a 78 y/o woman with blurred and distorted vision in her only useful eye (OS); her right eye has been NLP by history for many years due to a dense corneal scar. Your dilated fundus exam identifies a macular pucker OS; OD is a blind eye for which no image is obtainable or useful. In addition to the exam (shown as 9xxxx), the claim will read as below.

17 REFERRING/ORDERING PROVIDER	17a
J Emdy, MD	17b 12345678
19 ADDITIONAL CLAIM INFORMATION Only left eye photographed	
21 DIAGNOSIS OR NATURE OF ILLNESS OR INJURY	ICD Ind 0
A. H35.372 B. C. D.	

24a DATES OF SERVICE FROM	TO	24b POS	24d PROCEDURES, SVCS CPT/HCPCS	MODIFIER	24e DX POINTER	24f $ CHARGES	24g UNIT	24i ID QUAL	24j RENDERING PROV ID
mm/dd/yyyy		11	9xxxx		A	xxx.xx	1	NPI	1234567890
mm/dd/yyyy		11	92250	52	A	xxx.xx	1	NPI	1234567890

Note: Some payers require modifier 52 when only one eye is imaged; note also the box 19 comment, which may be required by some payers. Reimbursement is sometimes reduced.[33,34]

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[33] National Governmental Services, Inc. LCD L33567, Ophthalmology: Posterior Segment Imaging (Extended Ophthalmology and Fundus Photography). Rev. Eff. date 10/01/19. Link here. Accessed 02/02/23.

[34] Palmetto GBA. Local Coverage Article A53060. Coding Article for Ophthalmology: Extended Ophthalmoscopy and Fundus Photography. Revision effective 01/01/20. Link here. Accessed 02/02/23.

Example 4 Fundus Photography and SCODI-P for diabetic retinopathy

You are a retina specialist consulted by another eyecare provider concerning a 28 y/o man with blurred vision in both eyes; he is a Type I diabetic and takes insulin. Your dilated fundus exam identifies proliferative diabetic retinopathy in both eyes but no diabetic macular edema (DME) in either eye. You order FP and SCODI-P of the retina of both eyes and document your findings in your report. In addition to the exam (shown as 9xxxx), the claim will read as below.

Both SCODI-P and FP were performed, but they are bundled under NCCI edits (which this payer follows). Since the results of the FP are significant, and OCT is not, the claim is only FP.

17 REFERRING/ORDERING PROVIDER	17a.		
DK J Emdy MD	17b.	NPI	1234567890
19 ADDITIONAL CLAIM INFORMATION			
21 DIAGNOSIS OR NATURE OF ILLNESS OR INJURY ICD Ind. 0			
A. E10.3593 B. C. D.			

24. A. DATES OF SERVICE From MM DD YY	To MM DD YY	B. POS	C. EMG	D. PROCEDURES, SVCS CPT/HCPCS	MODIFIER	E. DX POINTER	F. $ CHARGES	G. UNITS	H. EPSDT	I. ID QUAL.	J. RENDERING PROVIDER ID.
mm dd yyyy		11		9xxxx		A	xxx xx	1		NPI	1234567890
mm dd yyyy		11		92250		A	xxx xx	1		NPI	1234567890

Example 5 Remote imaging for diabetes mellitus

You are a primary care physician caring for your 57 y/o male patient with a 7-year history of Type II diabetes mellitus controlled with oral hypoglycemic agents. He has no specific visual complaints. You order retinal imaging of both eyes; your medical assistant takes the pictures; the images are sent via a secure transmission to a reading center, where they are read by clinical staff and you receive a report the same day that finds no retinopathy. In addition to the exam (shown as 9xxxx), the claim will read as follows.

17 REFERRING/ORDERING PROVIDER	17a.		
DK PC Pea MD	17b.	NPI	9876543210
19 ADDITIONAL CLAIM INFORMATION			
21 DIAGNOSIS OR NATURE OF ILLNESS OR INJURY ICD Ind. 0			
A. E11.9 B. C. D.			

24. A. DATES OF SERVICE From MM DD YY	To MM DD YY	B. POS	C. EMG	D. PROCEDURES, SVCS CPT/HCPCS	MODIFIER	E. DX POINTER	F. $ CHARGES	G. UNITS	H. EPSDT	I. ID QUAL.	J. RENDERING PROVIDER ID.
mm dd yyyy		11		9xxxx		A	xxx xx	1		NPI	9876543210
mm dd yyyy		11		92227		A	xxx xx	1		NPI	9876543210

Example 6 Remote imaging for diabetes mellitus

You are a primary care physician caring for your 35 y/o female patient with an 11-year history of Type I diabetes mellitus controlled with insulin. She has reduced vision in one eye. She has a history of retinal microaneurysms. You order retinal imaging of both eyes; your medical assistant takes the pictures; the images are sent via a secure transmission to a reading center; they are read by an ophthalmologist and you receive a report the same day that finds proliferative diabetic retinopathy OU and no macular edema. In addition to the exam (shown as 9xxxx), the claim will read as below.

17 REFERRING/ORDERING PROVIDER	17a.		
DK PC Pea MD	17b.	NPI	9876543210
19 ADDITIONAL CLAIM INFORMATION			
21 DIAGNOSIS OR NATURE OF ILLNESS OR INJURY ICD Ind. 0			
A. E10.3593 B. C. D.			

24. A. DATES OF SERVICE From MM DD YY	To MM DD YY	B. POS	C. EMG	D. PROCEDURES, SVCS CPT/HCPCS	MODIFIER	E. DX POINTER	F. $ CHARGES	G. UNITS	H. EPSDT	I. ID QUAL.	J. RENDERING PROVIDER ID.
mm dd yyyy		11		9xxxx		A	xxx xx	1		NPI	9876543210
mm dd yyyy		11		92228		A	xxx xx	1		NPI	9876543210

Financial Waivers

An Advance Beneficiary Notice of Noncoverage (ABN)[35] is a written notice a healthcare provider gives to a Medicare beneficiary when the provider believes that Medicare will not pay for items or services. It is required for both assigned and non-assigned claims. By signing an ABN, the Medicare beneficiary acknowledges that he or she has been advised

[35] Advance Beneficiary Notice of Noncoverage. Link here to Corcoran Consulting Group's website for downloadable versions of this form. Accessed 02/03/23

that Medicare will not pay and agrees to be responsible for payment, either personally or through another insurance plan. For an ABN to have any utility, it must be signed before providing the item or service.

You do not need an ABN for items or services that are statutorily (*i.e.,* by law) non-covered by Medicare. Statutorily non-covered services in an eye care practice include refractions and cosmetic procedures such as refractive surgery. Instructions, published on September 5, 2008,[36] and still in effect, allow the use of an ABN *voluntarily* for items excluded from Medicare coverage. At your discretion, you may choose to notify a beneficiary that these services are never covered using the ABN. Written notification is strongly recommended to avoid confrontations with beneficiaries about payment.

The format of an ABN cannot be modified to any significant degree. You must add your name, address, and telephone to the header. You may add your logo and other information if you wish. The "Items or Services," "Reason Medicare May Not Pay," and "Estimated Cost" boxes are customizable so that you can add pre-printed lists of common items and services or denial reasons. Anything you add in the boxes must be high-contrast ink on a pale background. Blue or black ink on white paper is preferred. You may not make any other alterations to the form. It must be one page, single-sided, although an addendum is allowed.

You must complete your portion of the form before asking the beneficiary to sign. Fill in the beneficiary's name and identification number (but not the HIC number) at the top of the form. Complete the "Items or Services" box, describing what you propose to provide. Use simple language the beneficiary can understand. You may add CPT or HCPCS codes, but codes alone are insufficient without a description. Complete the "Reason Medicare May Not Pay" box with the reason(s) you expect a denial. The reason(s) must be specific to the patient; general statements such as "medically unnecessary" are unacceptable. The "Estimated Cost" field is required.

The beneficiary must *personally* choose Option 1, 2, or 3. The patient must *sign* and *date* the form; an unsigned or undated form is invalid. Once the patient has signed the completed form, he or she must receive a legible copy. The same guidelines apply to the copy as to the original: blue or black ink on white paper is preferred; a photocopy is acceptable. You keep the original in your files.

If the beneficiary chooses Option 1, you must file a claim and append an appropriate modifier to the reported item(s) or service(s). In CMS Transmittal R1921CP,[37] effective April 1, 2010, two modifiers were updated to distinguish between *voluntary* and *required*

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[36] CMS. *MedLearn Matters* (MM6136). Revised Form CMS-R-131 Advance Beneficiary Notice of Noncoverage. Link here. Accessed 02/03/23.

[37] CMS. Transmittal R1921CP. Billing for Services Related to Voluntary Uses of Advanced Beneficiary Notices of Noncoverage (ABNs). February 19, 2010. Link here. Accessed 12/22/2022.

use of liability notices. This change addresses the fact that most beneficiaries will elect Option 1 in the hope that Medicare might pay, despite your assurances to the contrary.

Modifier GA was redefined as "Waiver of Liability Statement Issued as Required by Payer Policy." When coverage is uncertain, you ask the patient to sign an ABN and submit your claim with modifier GA, allowing the payer to decide if the test is covered. Modifier GX is new and defined as a "Notice of Liability Issued, Voluntary Under Payer Policy." If the patient selects Option 1, append modifiers GX and GY to that claim as those services are non-covered. Modifier GY is defined as an "Item or service statutorily excluded or does not meet the definition of any Medicare benefit."

Option 2 applies to situations where Medicare is precluded from paying for the item or service, and the beneficiary does not dispute the point. Do not file a claim; post the item or service in your computer system with the modifier GY.

Note that Medicare Advantage plans (Medicare Part C) are prohibited from using the regular Medicare ABN form but may still require prior financial notice. In many cases, they must provide coverage or non-coverage determination in advance. Check plan websites for appropriate instructions.

For non-Medicare beneficiaries, some of the above principles are just as applicable. While the concept of waiver of liability may not be present, or at least not as vigorously, it is still prudent to ensure that patients appreciate the distinction between covered and non-covered services and accept financial responsibility for the latter.

Prohibited Code Combinations

In 1996, CMS developed the National Correct Coding Initiative (NCCI) to control improper coding leading to inappropriate payments in Part B claims.[38,39] NCCI consists of a series of edits to analyze codes reported on claims for reimbursement. They ensure the most comprehensive groups of codes are billed rather than the component parts; this is the concept informally known as "bundles." Additionally, the edits check for mutually exclusive code pairs – procedures that are medically incompatible – so just one of the pairs may be reimbursed. New edits are published quarterly by the National Technical Information Service (NTIS). Some carriers have also published local policies with additional limitations. Of note, you may not use an ABN to circumvent the NCCI edits. Table 2 shows the common, current NCCI edits affecting these codes; check the full NCCI listing for all codes.

[38] Medicare Claims Processing Manual, Chapter 23, §20.9. Correct Coding Initiative. Link here. Accessed 12/22/2022.

[39] Centers for Medicare & Medicaid (CMS). National Correct Coding Initiative Edits. Link here. Accessed 12/22/2022.

Table 2 **Code Edits**

Primary Code	***Do Not Bill These Codes With Primary Code***	***Do Not Bill Primary Code With These Codes***
92227	92229^{0} 0604T^{0} 0605T^{0} 0606T^{0}	92002 92004 92012 92014 92133^{0} 92134^{0} 92228^{0} 92250^{0} 99202 99203 99204 99205 99211 99212 99213 99214 99215
92228	92133^{0} 92134^{0} 92227^{0} 92229^{0} 92250^{0} 0604T^{0} 0605T^{0} 0606T^{0}	92002 92004 92012 92014 99202 99203 99204 99205 99211 99212 99213 99214 99215
92250	92201^{0} 92202^{0} 92227^{0} 92229^{0} 99211	92133 92134 92228^{0} 92230 92235 92240 92242

NCCI edits effective 01/01/23

Health Professional Shortage Area (HPSA)

Medicare pays a quarterly 10% premium to physicians who provide services in a Health Professional Shortage Area (HPSA). Historically, modifiers QU (urban) and QB (rural) designated services eligible for an HPSA bonus. Modifier AQ replaced these modifiers on January 1, 2006; the distinction between rural and urban HPSAs no longer exists. No modifier is necessary if your zip code is listed as HPSA eligible. The bonus payment will be automatic. Eligible services provided at locations not listed will continue to need the modifier AQ.

This premium is pertinent only to professional services and does not apply to the technical component (TC) of diagnostic tests. Until recently, it was necessary to separate the professional and technical components to receive bonuses, but no longer. The carrier will automatically calculate bonus payments on the professional component.

As an illustration, if the test in Sample Claim 1, above, had been performed in an HPSA not receiving automatic bonus payments, then the claim would be billed as 92250-AQ.

Purchased Diagnostic Tests / Anti-Markup Rule

If you order and bill for a test and either the technical component or the professional interpretation is performed by another physician, you may be prohibited from marking up the test (*i.e.*, receiving payment from Medicare over the amount you paid to the entity who performed the technical component or professional interpretation) unless the physician who performs the test "shares a practice" with you.[40] However, if the performing physician

[40] Medicare Learning Network, MLN Matters #MM6371. Claims Processing Instructions for Diagnostic Tests Subject to the Anti-Markup Pricing Limitation. Effective July 1, 2009. Link here. Accessed 02/03/23.

meets the Medicare criteria for "sharing a practice" with you, the prohibition would not apply for that diagnostic test. The prohibition against marking up the test is referred to as the Medicare Anti-Markup Rule and was formerly known as the Purchased Diagnostic Test Rule.

If the Medicare Anti-Markup Rule applies because the performing physician is not deemed to share a practice with the billing physician, the payment to the billing physician (less the applicable deductibles and coinsurance paid by the beneficiary or on behalf of the beneficiary) for the technical component or the professional component of the diagnostic test may not exceed the lowest of the following amounts:

- The performing supplier's net charge to the billing physician or other supplier;
- The billing physician or other supplier's actual charge; or
- The fee schedule amount for the test would be allowed if the performing supplier billed directly.

Please refer to CMS instructions for further information about the Medicare Anti-Markup Rule and the "sharing a practice" criteria.[41]

UTILIZATION

Medicare utilization rates are published but commercial utilization rates are not readily available. There are no published limitations for repeated testing. In general, these and all diagnostic tests are reimbursed when medically indicated. Clear documentation of the reason for testing is always required. If your utilization rate exceeds the expected norms, you will likely garner attention from Medicare and other payers. Careful attention to documentation of the test and the reasons it was performed are your best defense against reproach in the event of post-payment review.

Medicare utilization rates for claims paid in 2018 (the most recent information we have available) show that fundus photography (92250) was associated with about 10% of all office visits by ophthalmologists. That is, for every 100 exams performed on Medicare beneficiaries, Medicare paid for this service 10 times. For optometrists, the utilization rate is 15%.

There are no utilization rates available for 92227 or 92228.

[41] Medicare Claims Processing Manual, Chapter 1, Section 30.2.9. Link here. Accessed 02/02/23.

PAYMENT LEVELS

Medicare defines CPT 92227, 92228 and 92250 as bilateral, so reimbursement is for both eyes in nearly all cases.[42] The 2023 national Medicare Physician Fee Schedule allowable amounts for participating and non-participating providers[43] are shown below (Table 3). The amount is adjusted in each area by local indices. Other payers set their own rates, which may differ significantly from the Medicare published fee schedule.

Table 3 **Medicare National Payment Rates**

Code	PAR	Non-PAR	Limiting Charge
92227	$16.94	$16.10	$18.51
92228	$29.48	$28.01	$32.21
92228-TC	$12.88	$12.23	$14.07
92228-26	$16.60	$15.77	$18.14
92250	$37.61	$35.73	$41.09
92250-TC	$16.60	$15.77	$18.14
92250-26	$20.01	$19.96	$22.95

Note that 92227 does not have technical or professional components since it is not performed by a physician.

Multiple Procedure Payment Reduction

Medicare has implemented a new payment reduction when multiple tests are performed at the same encounter. Known as the Multiple Procedure Payment Reduction (MPPR),[44] it has been effective since January 1, 2013. This payment policy reduces the *technical component* of the second and any subsequent ophthalmic diagnostic tests by 20% when more than one eligible diagnostic test is performed at one patient encounter on the same

[42] American Medical Association. *CPT Assistant*. Modifiers 50 and 52: Special Ophthalmological Services. October 2012.

[43] Participating physicians (PAR) agree to accept Medicare allowed amounts on all covered services as their maximum payment from all sources. This is known as "accepting assignment". Non-participating physicians (Non-PAR) may accept assignment on a case-by-case basis, but are also limited in the amount they may charge the patient if they do not accept assignment. For additional discussion, see information published by CMS for patients Link here. Accessed 02/02/23.

[44] CMS Manual System, Pub 100-20 Notification. Multiple Procedure Payment Reduction (MPPR) on the Technical Component (TC) of Diagnostic Cardiovascular and Ophthalmology Procedures. Link here. Accessed 02/02/23.

day by the same physician or group. The list of tests[45] includes ultrasounds, imaging, and visual fields. Tests not on the list are not subject to the MPPR reduction. Of codes discussed in this monograph, 92228 and 92250 are subject to MPPR; 92227 is not since there is no technical component.

Example MPPR

A patient returns for her 3-month glaucoma check and threshold visual field. During the exam, the IOP is elevated, and the optic nerves show increased cupping compared to the last fundus photos. Repeat fundus photographs are ordered and performed today. Both tests (fundus photos and the visual fields) are adequately interpreted. Medicare payment for these tests would be as follows.

Test	Professional	Technical	Total
92083 Visual Field	$26.77	$36.26 (no reduction)	$63.03
92250 Fundus Photo	$21.01	$16.60 less $3.32 (20%) = $13.28	$34.29

2023 National Medicare Physician Fee Schedule, PAR allowable

The payment reduction is taken only on the lesser of the two *technical* portions – which is the fundus photo test in this example. Note that the professional portions of each test are unaffected and paid in full.

CONCLUSION

A well-known American proverb from the early 20th century says a picture is worth a thousand words. Unlike ophthalmoscopy, where the examiner must be content with a brief look at the fundus, fundus photography provides crisp, detailed, close-up pictures of the posterior pole and the opportunity for intensive study of abnormalities, as well as subsequent use as a benchmark for monitoring subtle changes that allow for better disease management.

The images also have utility for people other than the examining physician. For example, fundus photos are helpful in telemedicine, during litigation (*e.g.,* malpractice), as part of criminal investigations (*e.g.,* shaken baby), for teaching purposes, and for other caregivers.

[45] CMS Transmittal 1149, dated November 6, 2012, identifies the specific tests by CPT code that are subject to the MPPR. The Medicare Physician Fee Schedule multiple procedure indicator also identifies these codes each year (multiple procedure indicator 7).

Some applications of fundus photography, particularly screening, are not covered by Medicare and most other third-party payers. For covered services, documentation of the physician's order and interpretation are crucial; reimbursement is jeopardized when it is abbreviated or missing.

This discussion is meant to assist the reader to better understand the rules and regulations regarding reimbursement for fundus photography; however, it is always the physician's responsibility for appropriate usage, adequate documentation, and proper coding.

Practice Management Tips

- Store the electronic file of a diagnostic test within the electronic medical record, or in a secure, retrievable location; reference the location within the medical record.
- Document the physician's interpretation of the test(s) in a report within a short time, preferably within 24-72 hours. Be sure to address the quality of the test, the findings and the assessment. Sign the note.
- Some conditions warrant repeat testing to assess progressive disease or a worsening condition. Schedule repeat tests only when the required information cannot be obtained through clinical exam alone. Clearly document the rationale for repeat services.
- Coding for laterality and staging was added to some of the common eye conditions in the ICD-10 codes effective on October 1, 2016.
- Don't use fundus photographs as a surrogate for a dilated fundus evaluation during a comprehensive eye exam. Ophthalmoscopy is obligatory and non-mydriatic images do not substitute for it.
- Notify the patient, prior to testing, of financial responsibility if the diagnosis for fundus photos is not on the covered list for the payer, the test is to screen for possible disease, routine, or otherwise not covered by insurance. Document acceptance with an ABN (for Medicare) or prior coverage determination (for other payers).
- Medicare's NCCI edits treat fundus photography as *mutually exclusive* with SCODI-P (92133, 92134). Payment for the lesser-valued test is made if claims are filed for mutually exclusive services. Some payers have established policies that bundle fundus photography with extended ophthalmoscopy, or require strong documentation that the information is not duplicative. Concurrent fundus photography with visual fields is viewed unfavorably by some payers.
- Fundus photography reimbursement is subject to Medicare's MPPR rules. When performed with other tests on the same day, payment may be reduced.
- If you use an independent contractor to perform diagnostic tests, that is, someone who provides all the equipment and technician and is not an employee, get assistance with Medicare's arcane anti-markup rules.