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A Division of Ardare Corporation

Fundus Photography Reimbursement

Prepared for

OPTOVUE

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Fundus Photography Reimbursement

by

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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.*

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INTRODUCTION

This monograph describes reimbursement for fundus photography using Optovue's iCam® compact fundus camera, or iFusion™ combination Spectral-Domain OCT and fundus camera. Fundus photography is a common ophthalmic diagnostic test that is 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 CPT and published by the American Medical Association; diagnosis codes are from ICD-10-CM. Documentation of a diagnostic test, and the medical rationale for it, are 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, as well as recent Medicare utilization rates.

THE DEVICES [1]

The iCam is a non-contact fundus camera capable of non-mydriatic fundus imaging. It captures a 45 degree color fundus image and offers the capability of showing a red-free image as well as external images. iCam uses a white LED (light-emitting diode) synchronized to flash. Images are captured using a sensor and the resulting image is 8 bit cmos 5 million pixels.

iFusion connects the iVue® SD-OCT with the iCam fundus camera via the iShuttle sliding bracket mechanism to facilitate switching between the two devices. The iFusion interfaces with the iCam and iVue devices to enable the operation of the iCam and iVue devices from one computer unit. iFusion received FDA 510(k) clearance on July 3, 2013.[2]

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1 All product information and images provided by Optovue Corp.

2 FDA iFusion Premarket Notification. K130656. July 3, 2013. Link here. Accessed 01/29/20.

Figure 1 **Optovue iCam and Optovue iFusion**

INDICATIONS FOR USE

According to the American Academy of Ophthalmology's (AAO) Preferred Practice Patterns (PPP)[3] for age-related macular degeneration, primary open-angle glaucoma, and diabetic retinopathy, 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 for evaluating dry age-related macular degeneration. The AAO's PPPs further point out that fundus photography is a more reproducible technique than 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.

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[3] American Academy of Ophthalmology. Preferred Practice Patterns. Link here (listing shows multiple document access). Accessed 01/29/20.

Coverage Guidelines

Medical necessity for diagnostic testing begins with pertinent signs, symptoms, or medical history of a condition for which the examining physician needs further information. A variety of disease entities justify testing (Table 1). It is important to note that MACs do not agree on a common list of diagnoses for each of these diagnostic tests. Furthermore, there is variability among payers for the same tests. Careful review of local coverage determinations (LCDs) and private payer policies is necessary.[4,5,6]

There is a longstanding National Coverage Determination (NCD 80.6)[7] for "Intraocular Photography" but it notes only that Medicare finds it reasonable and necessary to make payment for 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*."

Initial diagnostic testing is ordered and performed when the information garnered from an eye exam is insufficient to assess the patient's disease. Medicare covers photography-related tests as an adjunct to evaluation and management of a known disease. If the images are taken as baseline documentation of a healthy eye or as preventive medicine to screen for potential disease, then they are not covered, even if disease is identified.[8]

Repeated fundus photography and angiography 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 can 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.

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4 A representative Fundus Photography policy may be found at National Governmental Services, Inc. LCD L33567 on Ophthalmology: Posterior Segment Imaging (Extended Ophthalmology and Fundus Photography). Rev. Eff. date 10/01/19. Link here. Accessed 01/29/20.

5 Another representative Fundus Photography policy may be found at Palmetto GBA. LCD L33467 on Ophthalmology: Extended Ophthalmoscopy and Fundus Photography. Rev. Eff. Date 10/24/19. Link here. Accessed 01/29/20.

6 A representative policy for Fluorescein Angiography can be found at First Coast Service Options. LCD L33997 on Fluorescein Angiography. Rev. Eff. 01/08/19. Link here. Accessed 01/29/20.

7 National Coverage Determination on Intraocular Photography (NCD 80.6). Effective date 09/01/1979. Link here. Accessed 01/29/20.

8 CFR 411.15(a)(1). Particular services excluded from coverage. Link here. Accessed 01/29/20.

Table 1 **Common Diagnosis Codes for Fundus Photography**[9]

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

[9] 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.

Table 1 **Common Diagnosis Codes for Fundus Photography**[9]

ICD-10	Description
Q14.8	Fundus coloboma
Q14.8	Congenital macular changes

National Government Services (NGS), the MAC for a number of states, notes the following for fundus photography in their LCD #33567: "*The test must be used in the medical decision making for the patient*".[10] 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.*" 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.*"

Palmetto GBA, the MAC for Virginia, West Virginia, and the Carolinas, in their LCD #L33467 on Fundus Photography, notes that "… *medical necessity for fundus photography should guide a clinical decision.*"[11]

Screening

Some ophthalmologists and optometrists use standing orders for non-mydriatic fundus photography for all patients prior to an eye exam, so the doctor can screen for posterior segment disease as well as educate patients about the back of the eye. Other times, SCODI-P of the retina is used as part of a package of items related to cosmetic refractive services. As a general rule most payers, including Medicare, do not cover screening services or preventive medicine. Patients must be given the opportunity to choose between an exam with or without these imaging services. Practices should use a financial waiver to document the beneficiary's acceptance of financial responsibility for the screening service. Screening occurs when the images are taken for one or more of the following reasons.

- Part of a wellness program to check for disease that may otherwise go undetected
- Not required by medical necessity; the reason for imaging is optional

[10] National Governmental Services, Inc. LCD L33567 on Ophthalmology: Posterior Segment Imaging (Extended Ophthalmology and Fundus Photography). Rev. Eff. date 10/01/19. Link here. Accessed 01/29/20.

[11] Palmetto GBA. LCD L33467 on Ophthalmology: Extended Ophthalmoscopy and Fundus Photography. Rev. Eff. Date 10/24/19. Link here. Accessed 01/29/20.

- The beneficiary has no symptom or documented condition that would support imaging
- Recommended prior to a physician order for an individual patient's unique illness, injury, or medical condition
- Done for all patients as a matter of course, unless they decline

Finding a disease on a screening test does not confer eligibility for reimbursement. It frequently leads to additional evaluation and management services, albeit not necessarily on the same day. Re-taking an image later on the same day (or another day close in time to the initial test) as the screening image does not provide coverage.

Standing Orders

Standing orders for tests may improve office efficiency, but they often create problems with reimbursement. The Office of Inspector General and the MACs have published several reports identifying standing orders as troublesome and problematic because they are routine screenings and non-covered services.[12,13,14,15] The Centers for Medicare & Medicaid Services (CMS) states "*the physician must clearly document, in the medical record, his or her intent that the test be performed."*[16,17,18] To avoid this difficulty with reimbursement, physicians should examine the patient first and then determine which tests, if any, are necessary *before* ordering them.

Telemedicine

The hallmark of telehealth is the utilization of information technology as an aid to providing health care and improving access to care. Healthcare IT News predicts that telehealth will grow at a five-year compound annual growth rate of 56%.[19]

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12 Blue Cross and Blue Shield of Georgia. Blood Glucose Monitoring. July 3, 2007.

13 United States General Accounting Office. Beneficiary Use of Clinical Preventive Services. GAO-02-422. April 2002.

14 Office of Inspector General. Report: St. Francis Hospital, Tulsa, OK. Estimated Medicare Overpayment. February 12, 2002.

15 Department of Justice. Press Release. GAMBRO Healthcare Inc. agrees to pay $53 million of overcharging Medicare, Medicaid, & Tricare. July 13, 2000.

16 Medicare Benefit Policy Manual, Chapter 15, §80.6.1. Requirements for Orders for Diagnostic Tests-Definitions. Link here. Accessed 01/29/20.

17 Palmetto GBA. Jurisdiction 11 Part B. Orders for Diagnostic Tests. Link here. Accessed 01/29/20.

18 Palmetto GBA. Jurisdiction 11 Part B. Diagnostic Test Order Needed to Support a Service for the Interpretation of a Diagnostic Test. Link here. Accessed 01/29/20.

19 Marion, J.. Telehealth use expected to grow rapidly over two years. *Healthcare IT News*. April 11, 2008. Link here. Accessed 01/29/20.

Likely, one area of growth will be screening for diabetic retinopathy. Diabetic eye disease is the leading cause for 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.[20,21,22,23,24,25] Also, some patients may need seven standard field, stereoscopic, color 30° fundus photos which is the standard of care for photographing diabetic eye disease.[26] Recently, some experts have questioned whether annual eye exams are the most cost-effective way of screening for eye problems in diabetics and have suggested telemedicine as a plausible alternative.[27,28]

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

DOCUMENTATION

The description in CPT for fundus photography includes the phrase *"with interpretation and report"*.[29] 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.

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20 All About Vision. Diabetes and Diabetic Retinopathy: Q&A. Link here. Accessed 01/29/20.

21 American Academy of Ophthalmology. Preferred Practice Patterns. Link here (listing shows multiple document access). Accessed 01/29/20.

22 National Eye Institute. Facts About Diabetic Retinopathy. Last Updated August 3, 2019. Link here. Accessed 01/29/20.

23 National Institutes for Health. Health Information. National Diabetes Month. Link here. Accessed 01/29/20.

24 Joslin Diabetes Center. Routine Eye Exams. Link here. Accessed 01/29/20.

25 American Diabetes Association. Diabetic Retinopathy: A Position Statement by the American Diabetes Association. Diabetes Care 2017 Mar; 40(3): 412-418. Link here. Accessed 01/29/20.

26 Fong, SD, et al. Evaluation of Diabetic Retinopathy. *Diabetes Care*. Vol 26, No Suppl 1 S99-S102. January 2003. Link here. Accessed 01/29/20.

27 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 01/29/20.

28 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 01/29/20.

29 American Medical Association. Current Procedural Terminology (CPT) 2020 Professional Edition.

Medicare Regulations and Guidance

The Medicare guidelines for interpretation of diagnostic tests are discussed in the Medicare Claims Process Manual (MCPM) Chapter 13 §100, Interpretation of Diagnostic Tests.[30] CMS makes a distinction 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.

> *"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,[31] 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."*

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[30] Medicare Claims Process Manual (MCPM), Chapter 13, §100. Interpretation of Diagnostic Tests. Link here. Accessed 01/29/20.

[31] 42 CFR 415.120(a). Conditions for payment: Radiology services, to beneficiaries. Link here. . Accessed 01/29/20.

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

- January 15, 2013
- 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, M.D.*

Where to write?

An interpretation can be written on its own separate page in the medical record or in 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. Better to keep it separate, or

differentiate it from the rest of the eye exam by surrounding 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,[32] and the physician need not be present during the performance of the test, the interpretation might take place the next day. If a weekend intervenes, there may be two days 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. Transmittals 1823 and 1873 were subsequently withdrawn, yet there is still concern about this topic. 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 would be used for the technical component alone.

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 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

[32] 42 CFR 410.32(b)(3)(i). Definition of general supervision. Link here. Accessed 01/29/20.

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.[33]

BILLING ISSUES

Procedure Codes

The following CPT codes might be used to report testing using the iCam.

92250	Fundus photography with interpretation and report
92227	Remote imaging for detection of retinal disease (*e.g.*, retinopathy in a patient with diabetes) with analysis and report under physician supervision, unilateral or bilateral
92228	Remote imaging for monitoring and management of active retinal disease (*e.g.*, diabetic retinopathy) with physician review, interpretation, and report, unilateral or bilateral

While CPT 92250 is readily understandable, CPT 92227 and 92228 are not as clear. The AMA publication, CPT Changes: An Insider's View 2011, indicated that these tele-medicine codes were established to "*...meet the needs of diabetic retinopathy screening programs which provide remote imaging and data submission to a centralized reading center.*" Unstated in the above is the applicability of telemedicine in other chronic conditions; technology and payer policy is evolving.

CPT 92227 reports a screening examination. This patient may have no visual complaints but has a history of diabetes. Images are taken but there is no physician involvement. Coverage for this screening service varies among payers and some Medicare contractors considering this service noncovered (*e.g.*, First Coast Service Options,[34] National Government Services[35]).

CPT 92228 reports remote imaging for monitoring and management of patients with active retinal disease. It would not apply when no retinal disease is present. Images are

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[33] 42 CFR 410.32(b)(3)(i). Definition of general supervision. Link here. Accessed 01/29/20.

[34] First Coast Service Options, Inc. LCD #L33777 on Noncovered Services. Rev. Eff. Date 11/27/19. Link here. Accessed 01/29/20.

[35] National Governmental Services, Inc. LCD L33567 on Ophthalmology: Posterior Segment Imaging (Extended Ophthalmology and Fundus Photography). Rev. Eff. date 10/01/19. Link here. Accessed 01/29/20.

taken remotely, sent to a reading center, and reviewed by a physician who generates an interpretation and report. Most (but not all) payers consider this a covered service. It's important to check *before* providing the service so as to appropriately advise the patient. The parenthetical instructions in CPT immediately below these two codes preclude the use of office visit CPT codes (92002-92014 and 99201-99350) as well as other diagnostic tests (92133, 92134, and 92250) at the same encounter.

A comparison of the three imaging codes reveals some peculiarities which impact the coding of services. Significantly, the relative value units (RVUs) assigned by CMS to 92227 and 92228 are substantially lower than the RVUs for 92250.

The use of remote imaging, especially for diabetics, is not new. Many centers already exist to provide fundus photos and forward them to a reading center for interpretation by an ophthalmologist, and generate a formal report to the referring doctor. These centers code this service as 92250. The remote imaging codes cause concern about the continued use of CPT 92250 due to the economic incentives for the payer to substitute 92227 or 92228.

Since 92227 does not contemplate physician involvement, does not require a physician interpretation, and is not used for previously identified retinopathy, it is an unsuitable choice where an ophthalmologist is an essential part of the telemedicine screening protocol. Conversely, 92228 does contemplate physician involvement, does require a physician interpretation, and is only used for monitoring and managing patients with previously identified retinopathy; it is a suitable choice for a telemedicine program *except* for screening. Because the remote imaging code set is incomplete for all combinations of disease and physician involvement, only 92250 accurately describes telemedicine screening with physician interpretation and report.

Table 2 **Fundus Photography CPT Codes**

Code	Remote	Interpretation	Pre-existing Retinopathy	2017 RVU
92227	Yes	No	No	0.41
92228	Yes	Yes	Yes	0.98
92250	Yes or No	Yes	Yes or No	1.86

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

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

Note: Some payers might not require the code for oral hypoglycemics (Z79.84) even though it is mentioned in the ICD-10 instructions.

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. You order SCODI-P of the retina OD and document your findings in your report. In addition to the exam (shown as 9xxxx), the claim will read as below.

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

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 some payers might also require. Reimbursement is sometimes

reduced.[36,37]

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, bill 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 I.D.
mm dd yyyy		11		9xxxx		A	xxx xx	1		NPI	1234567890
mm dd yyyy		11		92250		A	xxx xx	1		NPI	1234567890

Note: ICD-10 codes before and after October 1, 2016 dates of service differ since laterality was not part of diabetic codes until after October 1, 2016. Additionally, since type I diabetics (E10.- codes) are assumed to be on insulin by definition, the Z79.4 code for insulin is not used.

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),[38] it has been in effect since January 1, 2013. This payment policy reduces the *technical*

[36] National Governmental Services, Inc. LCD L33567 on Ophthalmology: Posterior Segment Imaging (Extended Ophthalmology and Fundus Photography). Rev. Eff. date 10/01/19. Link here. Accessed 01/29/20.

[37] Palmetto GBA. Local Coverage Article A53060. Coding Article for Ophthalmology: Extended Ophthalmoscopy and Fundus Photography. Revision effective 01/01/20. Link here. Accessed 01/29/20.

[38] 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 01/29/20.

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 day by the same physician or group. The list of tests[39] includes ultrasounds, imaging, and visual fields. Tests not on the list are not subject to the MPPR reduction. All the codes listed in this monograph are subject to MPPR.

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 properly interpreted. Medicare payment for these tests would be as follows.

Test	Professional	Technical	Total
92250 Fundus Photo	$22.01	$23.82 (No reduction)	$45.83
92083 Visual Field	$28.15	$36.09 less $7.22 (20%) = $28.87	$64.24

2020 National Medicare Physician Fee Schedule, PAR allowable

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

Financial Waivers

An Advance Beneficiary Notice of Noncoverage (ABN)[40] is a written notice a health care 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 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

[39] 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).

[40] Advance Beneficiary Notice of Noncoverage. Link here to Corcoran Consulting Group's website for downloadable versions of this form. Accessed 01/29/20.

refractions and cosmetic procedures such as refractive surgery. Instructions, published on September 5, 2008,[41] 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 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 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 not sufficient 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 particular patient; general statements such as "medically unnecessary" are not acceptable. 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 not valid. 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 fine. 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,[42] effective April 1, 2010, two modifiers were updated to distinguish between *voluntary* and *required* 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.

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[41] CMS. *MedLearn Matters* (MM6136). Revised Form CMS-R-131 Advance Beneficiary Notice of Noncoverage. Link here. Accessed 01/29/20.

[42] CMS. Transmittal R1921CP. Billing for Services Related to Voluntary Uses of Advanced Beneficiary Notices of Noncoverage (ABNs). February 19, 2010. Link here. Accessed 01/29/20.

Modifier GX is new and defined as "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 "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; do post the item or service in your computer system with 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 are required to provide a coverage or non-coverage determination in advance. Check plan websites for appropriate instructions.

For non-Medicare beneficiaries, some of the principles outlined above 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, the Centers for Medicare and Medicaid Services (CMS) developed the National Correct Coding Initiative (NCCI) to control improper coding leading to inappropriate payments in Part B claims.[43,44] 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 pair 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 3 shows the common, current NCCI edits, affecting fundus photography.

Table 3 **Fundus Photography Code Edits**

Primary Code	***Do Not Bill These Codes With Primary Code***	***Do Not Bill Primary Code With These Codes***
92250	92201[0] 92202[0] 99211 92227	92133 92134 92228[0] 92235 92240 92242

[43] Medicare Claims Processing Manual, Chapter 23, §20.9. Correct Coding Initiative. Link here. Accessed 01/29/20.

[44] Centers for Medicare & Medicaid (CMS). National Correct Coding Initiative Edits. Link here. Accessed 01/29/20.

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 a 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 in order 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 a 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 in excess of 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.[45] However, if the performing physician 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

[45] 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 01/29/20.

- The fee schedule amount for the test that would be allowed if the performing supplier billed directly.

For further information about the Medicare Anti-Markup Rule and the "sharing a practice" criteria, please refer to CMS instructions.[46]

PAYMENT LEVELS

Medicare defines CPT 92250 as bilateral so reimbursement is for both eyes in nearly all cases.[47] The 2020 first half national Medicare Physician Fee Schedule allowable is shown below for code 92250 (Table 4). 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 4 **Medicare National Payment Rates**

Code	PAR	Non-PAR[48]	Limiting Charge
92250	$45.83	$43.54	$50.07
92250-TC	$23.82	$22.63	$26.02
92250-26	$22.01	$20.91	$24.05

UTILIZATION

Medicare utilization rates are published and are noted below; 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

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46 Medicare Claims Processing Manual, Chapter 1, Section 30.2.9. Link here. Accessed 01/29/20.

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

48 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 here. Accessed 01/29/20.

payers. Careful attention to documentation of the test and the reasons it was performed are your best defense against reproach in the event of postpayment review.

Medicare utilization rates for claims paid in 2018 show that fundus photography (92250) was associated with 9.5% of all office visits by ophthalmologists. That is, for every 100 exams performed on Medicare beneficiaries, Medicare paid for this service 9 times. For optometrists, the utilization rate is 14.8%.

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.

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; where it is abbreviated or missing, reimbursement is jeopardized.

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. A few 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.