Medicare Reimbursement
For Fundus Imaging

Prepared for

TOPCON
CONNECTING VISIONS

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Medicare Reimbursement for Fundus Imaging

by

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Objective: This report is provided as a general discussion of billing and documentation for fundus photography and related issues. Local variations between payers may occur which are not described here. The user is strongly encouraged to review official instructions promulgated by the Centers for Medicare and Medicaid Services (CMS) and their Medicare carriers; this document is not an official source nor is it a complete guide on all matters pertaining to reimbursement. In addition, users should check with their local Medicare Administrative Contractor (MAC) for approved diagnosis codes and usage.

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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This document does not constitute legal or medical advice. Physicians and other providers should use independent judgment when selecting codes that most appropriately describe the services provided to a patient. Physicians and hospitals are solely responsible for compliance with applicable laws, Medicare regulations, and other payers’ requirements and should confirm the applicability of any coding or billing practice with applicable payers prior to submitting claims.

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INTRODUCTION

This monograph describes reimbursement for fundus imaging. Fundus photography is a common ophthalmic diagnostic test that is a useful tool to screen for disease as well as an aid to record and assess anomalies and diseases of the retina, choroid, and optic nerve. Some fundus cameras also have the capability to perform imaging of retinal and choroidal vasculature circulation studies, such as fluorescein or indocyanine green angiography.

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-9-CM. Documentation of the tests performed with these fundus cameras, as well as the medical necessity for them, are the key factor to supporting reimbursement, so we cover them in detail.

Since economic analyses are a necessary part of any capital budgeting decision, we incorporated Medicare’s payment rates for the procedure, as well as recent Medicare utilization rates.

INDICATIONS FOR USE

According to the American Academy of Ophthalmology’s (AAO) Preferred Practice Patterns (PPP)1 for age-related macular degeneration, primary open-angle glaucoma and diabetic retinopathy, fundus photography and angiography provide objective documentation and are the best routine approach to establish a baseline for future comparisons.

Fundus photographs, fluorescein and indocyanine angiography may facilitate detailed evaluation of the optic nerve head, finding landmarks for retinal lesions, assist in determining the size of detachments, and for evaluating dry and wet age-related macular degenerations as well as choroidal and retinal circulatory diseases. The AAO’s PPPs further point out that photography is a more reproducible technique than clinical examination for detecting posterior segment disease.

In general, fundus photography and angiography is performed to:

- evaluate abnormalities in the fundus and choroid,

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• follow the progress of a disease,
• plan the treatment for a disease, and/or
• assess the effect of recent surgery (e.g., photocoagulation or pharmacologic injections).

Merely documenting a static condition does not provide medical necessity for fundus photography or angiography. While dilation is not required for all of these tests, for some patients there is increased image quality when dilated.

Figure 1  Retinal Camera Images

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 separate tests. Careful review of local coverage determinations (LCDs) is necessary.²

Initial diagnostic testing is ordered and performed when the information garnered from the eye exam is insufficient to adequately 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.³

Repeated photography and angiography is necessitated by disease progression, the advent

² A representative policy may be found at Wisconsin Physician Service, LCD L32787. Link here.
³ CFR 411.15(a)(1). Particular services excluded from coverage. Link here.
of new disease, or planning for additional surgical treatment (e.g., laser). Otherwise, repeated photos of the same, unchanged, condition are unwarranted.

In our research for this monograph, we found no published strict limitations for repeated fundus photography or angiography, although some payers have guidance. 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.

**Table 1  Common Diagnosis Codes for Fundus Photography**

<table>
<thead>
<tr>
<th>ICD-9</th>
<th>Description</th>
<th>ICD-9</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>250.5x</td>
<td>Diabetes with ophthalmic manifestations</td>
<td>362.52</td>
<td>Exudative macular degeneration</td>
</tr>
<tr>
<td>360.50</td>
<td>Foreign body, magnetic, intraocular</td>
<td>362.53</td>
<td>Cystoid macular degeneration</td>
</tr>
<tr>
<td>360.60</td>
<td>Foreign body, intraocular</td>
<td>362.63</td>
<td>Lattice degeneration</td>
</tr>
<tr>
<td>361.10</td>
<td>Retinoschisis</td>
<td>362.75</td>
<td>Other retinal dystrophies</td>
</tr>
<tr>
<td>361.3x</td>
<td>Retinal defects w/o detachment</td>
<td>362.76</td>
<td>RPE dystrophies</td>
</tr>
<tr>
<td>362.01</td>
<td>Background diabetic retinopathy</td>
<td>362.82</td>
<td>Retinal exudates and deposits</td>
</tr>
<tr>
<td>362.02</td>
<td>Proliferative diabetic retinopathy</td>
<td>362.84</td>
<td>Retinal ischemia</td>
</tr>
<tr>
<td>362.10</td>
<td>Background retinopathy</td>
<td>365.xx</td>
<td>Glaucoma</td>
</tr>
<tr>
<td>362.11</td>
<td>Hypertensive retinopathy</td>
<td>377.0x</td>
<td>Papilledema</td>
</tr>
<tr>
<td>362.12</td>
<td>Exudative retinopathy</td>
<td>377.1x</td>
<td>Optic atrophy</td>
</tr>
<tr>
<td>362.17</td>
<td>Retinal microvascular abnormalities</td>
<td>377.3x</td>
<td>Optic neuritis</td>
</tr>
<tr>
<td>362.18</td>
<td>Retinal vasculitis</td>
<td>377.4x</td>
<td>Disorders of optic nerve</td>
</tr>
<tr>
<td>362.30</td>
<td>Retinal vascular occlusion</td>
<td>379.34</td>
<td>Posterior dislocation of lens</td>
</tr>
<tr>
<td>362.33</td>
<td>Partial arterial occlusion</td>
<td>743.52</td>
<td>Fundus coloboma</td>
</tr>
<tr>
<td>362.50</td>
<td>Macular degeneration</td>
<td>743.55</td>
<td>Congenital macular changes</td>
</tr>
<tr>
<td>362.51</td>
<td>Nonexudative macular degeneration</td>
<td>871.x</td>
<td>Open wound of eyeball</td>
</tr>
</tbody>
</table>

NOTE: 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.

Novitas, the MAC for the District of Columbia, notes the following in their LCD #L27498: “Fundus photographs are usually taken through a dilated pupil in order to enhance the quality of the photographic record, unless unnecessary for image acquisition or clinically contraindicated ...” It continues, “… photographs will only be covered only if they document a clinically relevant condition that is subject to change in extent, appearance or size, and where such change would directly affect the management. Routine images to embellish the record, but a succession of which would not influence treatment, would not be reimbursed.”

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4 Novitas Solutions, Inc. LCD L24307 on Fundus Photography, rev eff date 04/02/2012. [Link here](#).
Palmetto GBA, the MAC for California, in their LCD #L28262 on Fundus Photography, notes “…fundus photography should guide a clinical decision.”

Fluorescein angiography shares most of the diagnoses listed in Table 1 above. ICG angiography has a more restrictive coverage listing, as shown in Table 2.

Table 2 **Common Diagnosis Codes for ICG Angiography**

<table>
<thead>
<tr>
<th>ICD-9</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>362.16</td>
<td>Retinal Neovascularization NOS</td>
</tr>
<tr>
<td>362.17</td>
<td>Other intraretinal microvascular abnormalities</td>
</tr>
<tr>
<td>362.41</td>
<td>Central serous retinopathy</td>
</tr>
<tr>
<td>362.42</td>
<td>Serous detachment of retinal pigment epithelium</td>
</tr>
<tr>
<td>362.43</td>
<td>Hemorrhagic detachment of retinal pigment epithelium</td>
</tr>
<tr>
<td>362.52</td>
<td>Exudative macular degeneration</td>
</tr>
<tr>
<td>362.75</td>
<td>Other dystrophies of sensory retina</td>
</tr>
<tr>
<td>362.81</td>
<td>Retinal hemorrhage</td>
</tr>
<tr>
<td>363.15</td>
<td>Disseminated retinitis and retinochoroiditis</td>
</tr>
<tr>
<td>363.61</td>
<td>Choroidal hemorrhage unspecified</td>
</tr>
<tr>
<td>363.62</td>
<td>Expulsive choroidal hemorrhage</td>
</tr>
<tr>
<td>363.63</td>
<td>Choroidal rupture</td>
</tr>
<tr>
<td>363.72</td>
<td>Hemorrhagic choroidal detachment</td>
</tr>
<tr>
<td>363.8</td>
<td>Other disorders of choroid</td>
</tr>
</tbody>
</table>

NOTE: 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.

Novitas issues a separate LCD for fluorescein and ICG angiography. They specifically note the following for ICG angiography:

- *Medical record documentation … must indicate the medical necessity of the indocyanine green angiography, (e.g., evidence of ill-defined subretinal neovascular membrane on fluorescein angiography) …*

- *The rationale for services … in excess of the standard of care (one ICG prior to and one ICG following … treatment) must be reflected in the patients’ medical record …*

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5 Palmetto GBA. LCD L28262 on Fundus Photography, rev eff date 05/17/2012. [Link here](#).
6 Novitas Solutions, Inc. LCD 27497 on Fluorescein and Indocyanine Green Angiography, rev eff date 04/02/2012. [Link here](#).
Additionally, there is a National Coverage Determination (NCD 80.3.1)\(^7\) that involves the dye used in ICG angiography (verteporfin). This NCD is currently under review.\(^8\) Table 2 lists some commonly covered diagnoses.

Some physicians may feel that a retinal or optic nerve photograph (or angiogram) is indicated for a particular condition, but when the patient’s diagnosed condition does not appear on the payer’s coverage listing, reimbursement from the payer cannot be expected. Then, if payment is expected, it is important to notify patients in writing, prior to testing, of their financial responsibility for the test. For Medicare beneficiaries, use an Advance Beneficiary Notice of Noncoverage (ABN). For other payers, a Notice of Exclusion from Health Plan Benefits\(^9\) (NEHB) may be used. Some payers have published their own financial waiver forms. Check with the payer or look for a form on its website.

**Screening and Fundus Photography**

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. As a general rule most payers, including Medicare, do not cover screening services or preventive medicine.\(^10\) Patients must be given the opportunity to choose between an exam with or without fundus photography. Practices should use a financial waiver to document the beneficiaries’ 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 doing them is optional
- Recommended prior to an eye examination
- Taken before the patient is examined by the eye care provider
- 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 a fundus image later on the same day as test was initially done for screening does not provide coverage.

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\(^7\) CMS. National Coverage Indication 80.3.1. Verteporfin. Effective date 04/01/2004. [Link here.](#)

\(^8\) CMS. NCA Proposed decision memo for ocular photodynamic therapy (OPT) with verteporfin for macular degeneration (CAG-00066R4). [Link here.](#)

\(^9\) A sample form is available on our web site. [Link here.](#)

\(^10\) CFR 410.32 (a). [Link here.](#)
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.11,12,13,14 CMS states “the physician must clearly document, in the medical record, his or her intent that the test be performed.”15,16 To avoid this difficulty with reimbursement, physicians should examine the patient first and then determine which tests, if any, are necessary before ordering them.

DOCUMENTATION

The description in CPT for fundus photography includes the phrase “with interpretation and report”.17 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 interpretation of diagnostic tests are discussed in the Medicare Claims Process Manual (MCPM) Chapter 13 §100, Interpretation of Diagnostic Tests.18 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

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11 Blue Cross and Blue Shield of Georgia, Blood Glucose Monitoring, July 3, 2007
12 United States General Accounting Office, Beneficiary Use of Clinical Preventive Services, GAO-02-422, April 2002
13 Office of Inspector General, Report: St. Francis Hospital, Tulsa, OK, Estimated Medicare Overpayment, February 12, 2002
14 Department of Justice, Press Release, GAMBRO Healthcare Inc. agrees to pay $53 million of overcharging Medicare, Medicaid, & Tricare, July 13, 2000
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, 19 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?
- Assessment, diagnosis – What do the results mean?
- Impact on treatment, prognosis – What’s next?
- Physician’s signature – Who is the physician?

19 Code of Federal Regulations: 42 CFR 415.120(a) Link here.
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.

Figure 2 is a form that may be used for interpreting fundus photography or angiography. Angiography, due to the number of images taken, may require more description than fundus photography.

Figure 2  Interpretation Report

<table>
<thead>
<tr>
<th>INTERPRETATION REPORT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name __________________</td>
</tr>
<tr>
<td>Fundus Photography □</td>
</tr>
<tr>
<td>ICG Angiography □</td>
</tr>
<tr>
<td>Performed By: __________________</td>
</tr>
<tr>
<td>Reliability: □ Excellent □ Good □ Fair □ Poor</td>
</tr>
<tr>
<td>Patient Cooperation: □ Excellent □ Good □ Fair □ Poor</td>
</tr>
<tr>
<td>Physician’s Interpretation: __________________</td>
</tr>
<tr>
<td>Test Results: OD __________________ OS __________________</td>
</tr>
<tr>
<td>Diagnosis ______________________________________</td>
</tr>
<tr>
<td>Impact on Treatment/Prognosis: __________________</td>
</tr>
<tr>
<td>Ordering Physician’s Signature &amp; Date __________________</td>
</tr>
</tbody>
</table>
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, 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 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.

20 42 CFR 410.32(b)(3)(i)  Definition of general supervision. [Link here]
Following a test, your interpretation and report does not need to be book length, but it must answer pertinent questions about the service. A cryptic, one word note isn’t an interpretation as Medicare understands that term. Diagnostic tests are a significant part of most practices, so don’t underestimate the importance of a thorough “interpretation and report.”

**SUPERVISION**

In July, 2001, Medicare revised its supervision rules for many ophthalmic diagnostic tests. 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.21

Fluorescein and indocyanine green angiography require *direct* supervision. This means the physician should be present in the office suite and available to assist with the test/patient if needed; these tests both require an intravenous injection of dye. It is not necessary for the physician to be present in the exam room while the actual test is being performed.

**BILLING ISSUES**

Procedure Codes

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

- 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

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21 CFR 410.32(b)(3)(i). [Link here](#).
Some cameras are able to do two tests in addition to those noted immediately above (indocyanine green requires optional additional equipment).

92235 ...... Fluorescein angiography (includes multiframe imaging) with interpretation and report

92240 ...... Indocyanine green angiography (includes multiframe imaging) with interpretation and report

Fundus Photography

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.”

CPT 92227 reports a screening examination. This patient has 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 with some Medicare contractors considering this service noncovered (e.g., Trailblazer’s Health, National Government Services).

CPT 92228 reports remote imaging for monitoring and management of patients with active retinal disease. Images are taken remotely, sent to a reading center, and reviewed by a physician who generates an interpretation and report. Most payers consider this a covered service, but some (e.g., Trailblazer’s Health), consider it noncovered.

The parenthetical instructions in CPT immediately below these 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.
**Table 3  Fundus Photography CPT Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Remote</th>
<th>Interpretation</th>
<th>Pre-existing Retinopathy</th>
<th>2013 RVU</th>
</tr>
</thead>
<tbody>
<tr>
<td>92227</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>0.41</td>
</tr>
<tr>
<td>92228</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>1.06</td>
</tr>
<tr>
<td>92250</td>
<td>Yes or No</td>
<td>Yes</td>
<td>Yes or No</td>
<td>2.39</td>
</tr>
</tbody>
</table>

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.

Autofluorescence testing, abbreviated “AF”, is done for a number of clinical reasons on either the macula or optic nerve. It is performed with a very bright blue light to document the deposition of lipofuscin in the retinal pigment epithelium (RPE). Lipofuscin is a fluorescent pigment that accumulates in the RPE as a metabolic byproduct of cell function. AF is one form of fundus photography so CPT 92250 describes it; do not bill it separately or as an unlisted procedure (92499).

**Fluorescein Angiography**

Fluorescein angiography (FA) is performed to detect abnormalities of retinal blood vessels. Regardless of the treatment, the FA helps determine the extent and location of pathology, facilitating future determinations of disease progression, stability, and retreatment. FA often provides insight into the cause of unexplained visual acuity changes secondary to macular non-perfusion or macular edema. An FA is often used to differentiate exudative from non-exudative AMD. Typically, an FA is only done for neovascular AMD, however high-risk non-neovascular AMD with patient symptoms suggesting progression warrants an FA. The results of the FA help assess progression of the disease, prognosis and treatment modality for the patient. The lesions can change significantly over short time periods; therefore, timely interpretation of the FA is necessary.

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22 Fundus Autofluorescence. Ophthalmic Photographers’ Society. [Link here](#).
The CPT definition of FA includes the phrase, “includes multiframe imaging”. Generally, emphasis is on one eye, although photographs may be taken of both when there is bilateral disease. The reader should not assume that FA is always performed on both eyes or that reference shots of the fellow eye necessarily represent a bilateral study.

FA is considered unilateral, and Medicare allows 100% of the fee schedule amount for each eye when performed on both eyes. In 2013, there is an additional concern with Medicare when multiple tests are done and this is discussed below in the section on Multiple Procedure Payment Reduction, or MPPR. No separate payment is made for the infusion or the dye; they are included in the reimbursement for the test by all payers. A physician’s order in the medical record and written interpretation are required.

Fundus photography is commonly ordered in conjunction with FA. Each requires a specific order and separate interpretation in the medical record.

**Indocyanine Green Angiography**

High-speed indocyanine green (ICG) angiography is performed to detect abnormalities in the choroidal vasculature, which lies between the retina and the sclera. The images provide useful information in the evaluation of amorphous choroidal neovascularization (CNV) and pigment epithelial detachments. The results provide the necessary information for various retinal laser treatments.

ICG angiography is a unilateral test. A physician’s order in the medical record and written interpretation are required. No separate payment is made for the infusion or the dye; they are included in the reimbursement for the test. An ICG and FA done on the same day are both covered as long as the chart supports medical necessity. Coverage and frequency of subsequent tests vary among MACs. Fundus photography (92250) is bundled with ICG angiography.

**Modifiers**

The following modifiers may be applicable on claims for the above codes.

- **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.
Claims Processing Tips

- Notify the patient, prior to testing, of financial responsibility if the test is to screen for possible disease, routine, or otherwise not covered by insurance, and document acceptance on the Advance Beneficiary Notice of Noncoverage form for Medicare beneficiaries or Notice of Exclusion from Health Plan Benefits for other beneficiaries.
- Use the ordering physician’s NPI.
- Pay attention to Medicare’s NCCI edits. They change quarterly and describe bundles and mutually exclusive codes.
- Retain original images with the physician’s interpretation in the patient’s medical record.
- Some conditions warrant repeat testing to assess progressive disease or worsening of the condition. Schedule repeat tests only when the required information cannot be obtained through clinical exam alone. Clearly document the rationale for repeat services.

Sample Claims

Example 1  Age-related macular degeneration

During evaluation of the posterior pole with binocular indirect ophthalmoscopy, several small drusen were noted. Fundus photography was ordered OU to establish the extent of the nonexudative age-related macular degeneration (AMD) and to permit re-evaluation at a later date. Ignoring the exam, the claim will read as follows.
Example 2  Diabetes without retinopathy

Your 74 y/o established Medicare patient with Type II diabetes presents for a yearly examination. You note a normal fundus with no diabetic retinal changes. For a more detailed evaluation, you order and perform fundus photos. The claim will read as follows.

Note: The exam is covered. Fundus photography in the absence of retinal pathology is usually not covered. An ABN should be considered if payment is expected.

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; her other eye is NLP. Your dilated fundus exam identifies a macular pucker OS; OD is a blind eye. You order a fundus photo of the affected eye and document your findings in your report. The claim will read as follows.
Note: Many payers require modifier 52 when only one eye is photographed; note also the box 19 comment, which some payers also require. Reduced reimbursement may apply when only one fundus is imaged.23

**Example 4**  Proliferative diabetic retinopathy

You are a retinal specialist who has been referred a 67 y/o male with longstanding uncontrolled Type II diabetes. The patient notes that vision has been increasingly blurred; you note proliferative diabetic retinopathy in both eyes during the examination, and order fundus photography and fluorescein angiography of both eyes to determine the extent of the damage. Ignoring the exam, the claim would read as follows.

Note: 92235 done on both eyes can be billed as either 92235-50 or 92235-RT and 92235-LT. The net payment would be the same. Modifier 50 is not required for the bilateral test 92250 when indicated and performed on both eyes.

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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), it is effective for dates of service beginning 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 day by the same physician or group. The list of tests includes ultrasounds, imaging and visual fields. Tests not on the list are not subject to the MPPR reduction. CPT codes 92228, 92227, 92235, 92240 and 92250 are included in the list.

Example 5  Multiple Procedure Payment Reduction (MPPR)

Using example 4 for the patient with bilateral proliferative diabetic retinopathy shown above, payment would be expected as follows.

<table>
<thead>
<tr>
<th>Test</th>
<th>Professional (-26)</th>
<th>Technical (-TC)</th>
<th>Payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>92235 (FA, first eye)</td>
<td>$46.95</td>
<td>$66.34 (No reduction)</td>
<td>$113.30</td>
</tr>
<tr>
<td>92235 (FA, second eye)</td>
<td>$46.95</td>
<td>$66.34 less $13.27 (20%) = $53.07</td>
<td>$100.02</td>
</tr>
<tr>
<td>92250 (Fundus photo)</td>
<td>$23.48</td>
<td>$57.84 less $11.57 (20%) = $46.27</td>
<td>$69.75</td>
</tr>
</tbody>
</table>

Note: The payment reduction is taken on the second eye of the bilateral test and on the fundus photography. Figures are rounded to nearest $0.01.

Advance Beneficiary Notice of Non-Coverage

An ABN is a written notice a physician or other provider gives to a Medicare beneficiary before items or services are furnished when the physician reasonably believes that Medicare probably will not pay for some or all of the 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 probably or certainly not pay, and agrees to be responsible for payment, either personally or through other insurance. Medicaid qualifies as “other

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24 CMS Transmittal 1104, dated August 2, 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).
insurance” so get an ABN even for patients where Medicare is the secondary insurance and for patients that are dually-eligible for Medicaid and Medicare.

In June, 2002, CMS published an official ABN form (CMS-R-131-G) which was mandated by HIPAA.²⁵ A revised ABN form (CMS-R-131) became available in March, 2008, and another update was published in March, 2011. The revised ABN replaced the previous ABN-G and ABN-L forms. It may also be used in lieu of the NEMB (CMS-20007). All providers were required to begin using the revised ABN no later than March 1, 2009 and the most current version must be used on or after January 1, 2012.

The ABN must be signed before you provide the items or services. Keep the original in your file and provide a copy to the patient. The “Estimated Cost” field is required. The patient must personally choose from Option 1, 2 or 3. The patient must sign and date the form; an unsigned form is not valid. Without the Medicare beneficiary’s advance acceptance of financial responsibility, you will be required to refund any payment you collected for non-covered services.

In October, 2009, and effective April 1, 2010, CMS issued new instructions regarding modifiers to use on claims to indicate that a signed ABN is on file. Modifier GA has been redefined as “Waiver of liability statement issued as required by payer policy”. It should be used when an ABN was required for a service. Modifier GX has been added, with the definition of “Notice of liability issued, voluntary under payer policy”. It should be used when an ABN was not required by the payer’s policy for a service but was given voluntarily.

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.²⁶ 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.

²⁵ PM AB-02-114 Link here.
²⁶ Medicare Claims Processing Manual, Chapter 23, §20.9, Correct Coding Initiative
The current NCCI edits for fundus photography and angiography are shown below. A bundle means that just one service will be reimbursed when both are performed on the same day; it behooves you to bill just one, usually the greater one, assuming that both tests have clinical utility.

Table 4  NCCI Edits

<table>
<thead>
<tr>
<th>Primary Code</th>
<th>Do Not Bill These Codes With Primary Code</th>
<th>Do Not Bill Primary Code With These Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>92250</td>
<td>92227 99211</td>
<td>92228 92133 92134</td>
</tr>
<tr>
<td>92235</td>
<td>36000 36200 36215 36216 36217 36218 36245</td>
<td></td>
</tr>
<tr>
<td></td>
<td>36246 36247 36248 36410 76000 76001 77002</td>
<td></td>
</tr>
<tr>
<td></td>
<td>92230 93005 93010 93040 93041 93042 96360</td>
<td></td>
</tr>
<tr>
<td></td>
<td>96365 96372 96374 96375 96376 99211</td>
<td></td>
</tr>
<tr>
<td>92240</td>
<td>36000 36410 92230 92250 93000 93005 93010</td>
<td></td>
</tr>
<tr>
<td></td>
<td>93040 93041 93042 96360 96365 96372 96374</td>
<td></td>
</tr>
<tr>
<td></td>
<td>96375 96376 99211</td>
<td></td>
</tr>
</tbody>
</table>

Additionally, other diagnostic tests exist to diagnose and monitor retinal disease and, although not prohibited by an NCCI edit, might not be allowed on the same date. If, for example, extended ophthalmoscopy (CPT 92225, 92226) is performed on the same date of service as fundus photography, it may not be considered medically necessary if it merely duplicates information secured by fundus photography. One MAC, National Government Services, Inc., states in its policy L25466 for extended ophthalmoscopy, 27 “When other ophthalmologic tests (e.g., fundus photography, fluorescein angiography, ultrasound, etc.) have been performed, extended ophthalmoscopy will be considered medically unnecessary unless there was a reasonable medical expectation that the multiple imaging services might provide additive (non-duplicative) information.” Not all carriers agree on this point but it is worth keeping in mind.

**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 physician who performed the technical component or professional interpretation) unless the physician who performs the test "shares a practice" with you. 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

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27 National Government Services, Inc. Posterior Segment Imaging (Extended Ophthalmology and Fundus Photography. LCD L25466. Revision effective 1/01/2011. [Link here](#)
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 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.\(^\text{28}\)

**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.

\(^{28}\) Medicare Claims Processing Manual, Chapter 1, Section 30.2.9. [Link here](#)
PAYMENT LEVELS

Medicare defines CPT 92250 as bilateral so reimbursement is for both eyes in nearly all cases.\(^{29}\) CPT codes 92235 and 92240 are defined as unilateral. If testing is ordered, indicated, and interpreted for both eyes, they are both reimbursed subject to NCCI and MPPR as discussed above. The 2013 national Medicare Fee Schedule allowable amounts are shown below (Table 5); these amounts are adjusted in each area by local indices. Other payers set their own rates, which may differ significantly from the Medicare published fee schedule.

<table>
<thead>
<tr>
<th>Code</th>
<th>PAR</th>
<th>Non-PAR</th>
<th>Limiting Charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>92250</td>
<td>$81.31</td>
<td>$77.25</td>
<td>$88.84</td>
</tr>
<tr>
<td>92250-TC</td>
<td>$57.84</td>
<td>$54.95</td>
<td>$63.19</td>
</tr>
<tr>
<td>92250-26</td>
<td>$23.48</td>
<td>$22.30</td>
<td>$25.65</td>
</tr>
<tr>
<td>92235</td>
<td>$113.30</td>
<td>$107.63</td>
<td>$123.78</td>
</tr>
<tr>
<td>92235-TC</td>
<td>$66.34</td>
<td>$63.03</td>
<td>$72.48</td>
</tr>
<tr>
<td>92235-26</td>
<td>$46.95</td>
<td>$44.60</td>
<td>$51.29</td>
</tr>
<tr>
<td>92240</td>
<td>$266.06</td>
<td>$252.76</td>
<td>$290.67</td>
</tr>
<tr>
<td>92240-TC</td>
<td>$202.44</td>
<td>$192.32</td>
<td>$221.16</td>
</tr>
<tr>
<td>92240-26</td>
<td>$63.62</td>
<td>$60.44</td>
<td>$69.51</td>
</tr>
</tbody>
</table>

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


\(^{30}\) 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](#).
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 postpayment review.

Medicare utilization rates for claims paid in 2011 show that fundus photography (92250) was performed in 8% of all office visits by ophthalmologists. That is, for every 100 exams performed on Medicare beneficiaries, Medicare paid for this service 8 times. For optometrists, the utilization rate is about 12%.

Fluorescein angiography (92235) had Medicare utilization in 2011 of 7% for ophthalmologists; it was rarely performed by optometrists.

Indocyanine green angiography (92240) had Medicare utilization in 2011 of less than 0.1% for ophthalmologists and was almost never billed by optometrists.

**CONCLUSION**

Unlike ophthalmoscopy where the examiner must be content with a brief look at the fundus, fundus photography and fluorescein & indocyanine green angiography provide 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, they 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 and fluorescein & indocyanine green angiography, however the responsibility for appropriate usage, adequate documentation and proper coding are always the physician’s.
Practice Management Tips

- Document the physician’s interpretation of the diagnostic test 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.

- Other than screening, get a physician’s order with appropriate medical rationale before providing fundus photography.

- Differentiate covered and non-covered testing based on the reason for the service and the diagnosis.

- For most payers, screening and standing orders do not support coverage. Obtain patients’ acceptance of financial responsibility for non-covered services in writing using a financial waiver form (i.e., ABN or similar notice).

- When a unilateral test (92235 and 92240) is medically necessary on both eyes, be sure the order is written for testing of both eyes, and the interpretation reflects the use of images from each eye in the treatment of the patient.

- Routine photography of both eyes is not justification for billing each eye.

- Repeated testing is merited due to disease progression, otherwise dubious.

- Monitor NCCI bundles (e.g., FP with SCDOI-P, ICG)

- Check Local Coverage Determinations (LCDs) for specific guidance in your area. Covered indications and claims submission instructions differ over time. Investigate the policies of other third party payers; they vary.

- Place a note in the medical record that identifies where digital photos are electronically stored.

- Don’t use these 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.

- 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 - then get assistance with the arcane rules associated with purchased diagnostic tests.