Reimbursement for
Scanning Laser Ophthalmoscopy

Prepared for

Optos
Building The Retina Company

June 2016
Reimbursement for
Scanning Laser Ophthalmoscopy

by

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Objective: This document provides general practice management and reimbursement guidance for ultra-widefield scanning laser ophthalmoscopy and the family of optomap exams, and is for informational purposes only. 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 official instructions of the Centers for Medicare & Medicaid Services (CMS), the MACs, and other third party payers.

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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.

Acknowledgement: This paper was underwritten by a grant from Optos, Inc. as an aid to customers and other interested parties. A number of individuals provided helpful suggestions for which we are grateful. For further information about their products, contact the company at 800-854-3039 or at www.optos.com.
INTRODUCTION

This monograph describes reimbursement for digital retinal imaging with Optos’ scanning laser ophthalmoscopes (SLO). For procedure coding purposes on claims for reimbursement, this imaging is identified in a number of different ways depending on context:

- fundus photography,
- fluorescein angiography, or
- indocyanine green (ICG) angiography.

Figure 1  Fundus Photographs

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 and ICD-10-CM. To obtain reimbursement, the medical record must support the medical necessity for the service(s), so we describe those required elements in detail.

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

THE DEVICES

There are several different Optos® imaging systems that use ultra-widefield scanning laser ophthalmoscopy: the 200Tx, P200, P200C, the 200Dx, 200MA, P200Tx Daytona, and P200DTx California. They each produce full color, high resolution images and capture details of nearly the entire retina through a dilated or undilated pupil. These digital photographs can be enhanced, stored on a computer, transmitted to other physicians or printed. Different types of retinal imaging are performed by these devices.

In this monograph, we discuss practice management and reimbursement considerations related to different applications of the Optos® Ophthalmic Imaging System: optomap Retinal Exam, optomap plus Medical Retinal Exam, optomap af, optomap fa Angiography Procedure, and optomap icg Angiography Procedure.1

**optomap Retinal Exam**

The optomap Retinal Exam is a screening tool for early detection of disease or abnormalities in the posterior segment of the eye in the context of preventative medicine and wellness. Optos believes that many indicators of systemic disease and precursors to eye disease often exhibit first in the periphery of the retina. However, routine undilated retinal exams provide only a limited, narrow-field view of the retina (typically up to 45 degrees or about 5% view of the retina). So, these exams can miss diseases or conditions that may be present in the periphery of the retina. An ultra-widefield optomap retinal exam provides 200 degrees, or 82% of the retina, at once so the examiner can quickly and easily evaluate more of the fundus.

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1 Optos® Ophthalmic Imaging System: optomap® Retinal Exam, optomap® plus Medical Retinal Exam, optomap® fa Angiography Procedure, and optomap® icg Angiography Procedure are registered trademarks of Optos, Inc.
Figure 2  Optos Daytona

Figure 3  Optos California
**optomap plus Medical Retinal Exam**

The **optomap plus** medical retinal exam expands on the basic screening exam, using additional capabilities in the image capture and review process to facilitate the diagnosis and management of previously detected ocular abnormalities or pathology.

**Figure 4  Age-Related Macular Degeneration**

![Image of Age-Related Macular Degeneration](image)

**optomap fa Angiography**

The **optomap fa** expands on the **optomap** Medical Retinal Exam using ultra high resolution, ultra widefield **fluorescein angiography**.

**Figure 5  Fluorescein Angiogram**

![Image of Fluorescein Angiogram](image)
**optomap icg Angiography**

Indocyanine Green (ICG) is a vital dye with a peak fluorescence of about 800 nm. Because this is in the infrared (IR) spectrum, photography using ICG dye is able to show structures below the retinal pigment epithelium (RPE). The choroidal circulation is generally very fast-moving, and choroidal vascular flow can be imaged using ICG angiography.

![Image of ICG Angiography](image)

**Figure 6  Indocyanine Green Angiography**

According to the Ophthalmic Photographers’ Society, “*A fluorescein angiogram might do a good job of showing where the laser should be pointed when there is nothing in the way. In occult situations, however, many ophthalmologists want to see an ICG study in addition ... to provide a better idea of where the laser should be done.*”

**Optos V² Vantage Software**

V²® Vantage software’s features and capabilities include: ResMax™ high resolution enhancement for the central pole, targeted ophthalmoscopy view simulating the view of a binocular indirect ophthalmoscope, added image artifact counting, enhanced retinal drawing tools, and the capability to easily export optomap images. 3D Wrap™ is a

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feature that allows the patient’s retinal image to be placed onto a 3-dimensional model of the eye. The resultant 3-D image can then be used as a patient education tool. Vantage software gives the physician a tool to facilitate and enhance interpretation of optomap images.

OptosAdvance™ is a comprehensive image management solution for eye care. It is a DICOM compatible, browser based, review software that enables eye care professionals to store, manage and display:

- Patient data
- Diagnostic data
- Images from computerized diagnostic instruments
- Images from video documentation systems

With OptosAdvance™ Review, practitioners can easily view, annotate and share patient records and digital ocular scans.

**INDICATIONS FOR USE**

**Screening**

Some ophthalmologists and optometrists use standing orders for non-mydriatic retinal imaging 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. Patients must be given the opportunity to choose between an exam with or without retinal imaging. 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.

- Screening is part of a wellness program to check for disease that may otherwise go undetected.
- Screening is not required by medical necessity; it’s optional.

4 CFR 410.32(a). Diagnostic tests may only be ordered by the treating physician (or other treating practitioners acting within the scope of their licenses and Medicare requirements) who will use the results in the management of the beneficiary’s specific medical problem and diagnostic tests payable under the Physicians Fee Schedule must be furnished under the appropriate level of supervision by the physician. Diagnostic tests not meeting these requirements will be considered not medically necessary and, therefore, non-covered. [Link here](#). Accessed 01/20/16.
• The ophthalmologist or optometrist recommends the optomap Retinal Exam prior to every complete eye examination.

• The optomap Retinal Exam is performed by a technician before the patient is seen by the ophthalmologist or optometrist.

• All patients are screened 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. Repeating the imaging later on the same day as the test was initially done for screening does not provide coverage.

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. CMS states, “the physician must clearly document, in the medical record, his or her intent that the test be performed.” If you decide to use standing orders as a screening protocol, as discussed above, collect your fee from the beneficiary for a noncovered service. Use an Advance Beneficiary Notice of Noncoverage (ABN) or other financial waiver form to notify beneficiaries of their financial responsibility. See the discussion later in this document about ABNs.

**Fundus Photography**

According to the American Academy of Ophthalmology’s (AAO) Preferred Practice Patterns (PPP) 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

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5 42 CFR 411.15 (a)(1). Particular services excluded from coverage. [Link here](#). Accessed 01/20/16.
photographs facilitate detailed evaluation of the optic nerve head, find landmarks for retinal lesions, assist in determining the size of detachments and are an essential diagnostic tool for evaluating dry age-related macular degeneration. The AAO’s PPP further point out that fundus photography is a more reproducible technique than clinical examination for detecting posterior segment disease.\(^\text{13}\)

Diagnostic tests, including fundus photography, are ordered and performed when the information garnered from the eye exam is insufficient to adequately assess the patient’s disease. Medicare covers fundus photography as an adjunct to evaluation and management of a known disease or abnormality.

Palmetto GBA, the MAC for North Carolina and several other states, issued instructions that covered fundus photographs need to provide more than mere documentation of a disease or the absence of disease.\(^\text{14}\) Their policy states: “\textit{[M]edical necessity for fundus photography should guide a clinical decision... baseline [fundus] photos to document a condition that is reasonably expected to be static and/or not require future treatment would not be medically necessary. Such photos [should] ... provide a means of comparison to detect... potential progression...}”

Repeated fundus photography is necessitated by disease progression, the advent of new disease, or planning for surgical treatment (\textit{e.g.}, laser photocoagulation). Otherwise, repeated photographs of the same, unchanged condition are unwarranted. In general, fundus photography is performed to:

- evaluate abnormalities in the fundus identified during a prior eye exam,
- follow the progress of a disease,
- plan the treatment for a disease, and/or
- assess the therapeutic effect of recent surgery (\textit{e.g.}, laser photocoagulation).

A variety of disease entities justify testing (Table 1). It is important to note that MACs do not all agree on a common list of diagnoses. Careful review of contractor-specific local coverage determination (LCD) policy is necessary.


<table>
<thead>
<tr>
<th>ICD-10</th>
<th>ICD-9</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>C69.2-</td>
<td>190.5</td>
<td>Malignant neoplasm of retina</td>
</tr>
<tr>
<td>C69.3-</td>
<td>190.6</td>
<td>Malignant neoplasm of choroid</td>
</tr>
<tr>
<td>E10.3- E11.3-</td>
<td>250.5x</td>
<td>Diabetes with ophthalmic manifestations</td>
</tr>
<tr>
<td>H44.6-</td>
<td>360.50</td>
<td>Foreign body, magnetic, intraocular</td>
</tr>
<tr>
<td>H44.7-</td>
<td>360.60</td>
<td>Foreign body, intraocular</td>
</tr>
<tr>
<td>H33.1-</td>
<td>361.10</td>
<td>Retinoschisis</td>
</tr>
<tr>
<td>H33.3-</td>
<td>361.3x</td>
<td>Retinal defects w/o detachment</td>
</tr>
<tr>
<td>E10.3- E11.3-</td>
<td>362.01</td>
<td>Background diabetic retinopathy</td>
</tr>
<tr>
<td>E10.35- E11.35-</td>
<td>362.02</td>
<td>Proliferative diabetic retinopathy</td>
</tr>
<tr>
<td>H35.01-</td>
<td>362.10</td>
<td>Background retinopathy</td>
</tr>
<tr>
<td>H35.03-</td>
<td>362.11</td>
<td>Hypertensive retinopathy</td>
</tr>
<tr>
<td>H35.02-</td>
<td>362.12</td>
<td>Exudative retinopathy</td>
</tr>
<tr>
<td>H35.09-</td>
<td>362.17</td>
<td>Retinal microvascular abnormalities</td>
</tr>
<tr>
<td>H35.06-</td>
<td>362.18</td>
<td>Retinal vasculitis</td>
</tr>
<tr>
<td>H34.-</td>
<td>362.30</td>
<td>Retinal vascular occlusion</td>
</tr>
<tr>
<td>H34.2-</td>
<td>362.33</td>
<td>Partial arterial occlusion</td>
</tr>
<tr>
<td>H35.3-</td>
<td>362.50</td>
<td>Macular degeneration</td>
</tr>
<tr>
<td>H35.31-</td>
<td>362.51</td>
<td>Nonexudative macular degeneration</td>
</tr>
<tr>
<td>H35.32-</td>
<td>362.52</td>
<td>Exudative macular degeneration</td>
</tr>
<tr>
<td>H35.35-</td>
<td>362.53</td>
<td>Cystoid macular degeneration</td>
</tr>
<tr>
<td>H35.41-</td>
<td>362.63</td>
<td>Lattice degeneration</td>
</tr>
<tr>
<td>H35.54-</td>
<td>362.76</td>
<td>RPE dystrophies</td>
</tr>
<tr>
<td>H35.89-</td>
<td>362.82</td>
<td>Retinal exudates and deposits</td>
</tr>
<tr>
<td>H35.82-</td>
<td>362.84</td>
<td>Retinal ischemia</td>
</tr>
<tr>
<td>H40.- H42-</td>
<td>365.xx</td>
<td>Glaucoma</td>
</tr>
<tr>
<td>H47.1-</td>
<td>377.0x</td>
<td>Papilledema</td>
</tr>
<tr>
<td>H47.2-</td>
<td>377.1x</td>
<td>Optic atrophy</td>
</tr>
<tr>
<td>H46.-</td>
<td>377.3x</td>
<td>Optic neuritis and neuropathies</td>
</tr>
<tr>
<td>H47.0-</td>
<td>377.4x</td>
<td>Disorders of optic nerve</td>
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<tr>
<td>Q14.8</td>
<td>743.52</td>
<td>Fundus coloboma</td>
</tr>
<tr>
<td>Q14.8</td>
<td>743.55</td>
<td>Congenital macular changes</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. The ICD-10 codes shown are not a precise crosswalk; the ending “dash” means a longer code may be required and contains greater specificity than the corresponding ICD-9 code. Some policies may not use ALL the codes in a particular range as listed.
In the case of diabetes, fundus photography may be indicated when there is ocular manifestation of the disease as diabetic retinopathy, but a fundus photograph of an unaffected retina is not generally considered medically necessary even though annual eye exams are considered mandatory for these at-risk patients.

Autofluorescence

Autofluorescence (AF) is the term given to describe the natural glow that occurs in cells. It is a technique for documenting the presence of fluorophores in the human eye. Fluorophores are chemical structures that possess fluorescent properties when exposed to light of an appropriate wavelength. AF occurs when molecules absorb electromagnetic energy, which excites the molecules into a higher energy state and triggers the emission of light. AF is used to distinguish this type of fluorescence from that which occurs with fluorescent dyes such as fluorescein or ICG.

Figure 7  Autofluorescence Fundus Photo

Autofluorescence was considered at one time to be a nuisance but has proven to be helpful in imaging of conditions where health of the retinal pigment epithelium (RPE) plays a role. AF is effective in documenting metabolic changes from accumulation of toxic fluorophores in the RPE layer. It is useful for many fundus disorders, such as

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macular degeneration, retinal detachments, macular holes, lesions and central serous chorioretinopathy. AF can also be useful in screening for medication toxicity such as problems that might be related to hydroxychloroquine (Plaquenil™).\textsuperscript{17,18}

**Fluorescein Angiography**

Fluorescein angiography (FA) is performed to detect abnormalities of retinal blood vessels. Regardless of any treatment, the FA helps determine the extent and location of the 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 nonperfusion 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 does warrant an FA. The lesions can change significantly over short time periods; therefore, timely interpretation of the FA is necessary.

Coverage policies for FA vary. The Noridian Healthcare Solutions, LLC Medicare policy for Nevada\textsuperscript{19} is representative of many. It states:

\begin{quote}
“**Fluorescein angiography with interpretation is medically necessary as an adjunct to the diagnosis of chorioretinal vascular abnormalities especially relating to choroid neovascularization, noninfective vasculitis, and age related macular degeneration. It may also be appropriate in evaluating intraocular tumors, visual loss in systemic disease, acute exudative inflammations such as toxoplasmosis and optic disc edema. Medical necessity for such angiography would generally be in the context of a changing clinical picture. Fluorescein angiography may be useful in diabetic retinopathy in identifying ischemia and neovascularization, locating microaneurysms, and defining macular edema.**

**Fluorescein angiography following treatment, for example, of choroidal neovascularization (CNV) is necessary to monitor for recurrence or to detect additional treatable disease. Usually this is performed on the basis of a change in the clinical picture similar to the way it is employed prior to treatment. However, fluorescein angiography may be performed following treatment without clinical change in order to detect occult**
\end{quote}

\textsuperscript{17} Stuart, A. The Nuts and Bolts of Fundus Autofluorescence Imaging. *Eye Net Magazine*. September 2012. [Link here](#). Accessed 01/20/16.

\textsuperscript{18} Plaquenil is a registered trademark by Sanofi-Aventis U.S. LLC

\textsuperscript{19} Noridian Healthcare Solutions, LLC. LCD L34241. Ophthalmic Angiography (Fluorescein and Indocyanine Green). Eff. 10/01/2015. [Link here](#). Accessed 01/20/16.
lesions. This will occur most often in CNV and very rarely in other diseases.”

Table 2  Common Diagnosis Codes for Fluorescein Angiography

<table>
<thead>
<tr>
<th>ICD-10</th>
<th>ICD-9</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>B39.4</td>
<td>115.02</td>
<td>Histoplasma capsulatum retinitis</td>
</tr>
<tr>
<td>B39.5</td>
<td>115.12</td>
<td>Histoplasma duboisii retinitis</td>
</tr>
<tr>
<td>D86.-</td>
<td>135</td>
<td>Sarcoidosis</td>
</tr>
<tr>
<td>C69.1- to C69.2-</td>
<td>190.5 to 190.6</td>
<td>Malignant neoplasm, cornea or retina</td>
</tr>
<tr>
<td>D31.2- to D31.3-</td>
<td>224.5 to 224.6</td>
<td>Benign neoplasm, retina or choroid</td>
</tr>
<tr>
<td>D18.09</td>
<td>228.03</td>
<td>Hemangioma of retina</td>
</tr>
<tr>
<td>D18.09</td>
<td>228.09</td>
<td>Hemangioma of other sites</td>
</tr>
<tr>
<td>E10.3-, E11.3-</td>
<td>250.50 to 250.53</td>
<td>Diabetes with ophthalmic manifestations</td>
</tr>
<tr>
<td>D57.1</td>
<td>282.60</td>
<td>Sickle-cell disease, unspecified</td>
</tr>
<tr>
<td>D57.2</td>
<td>282.64</td>
<td>Sickle-cell/Hb-C disease with crisis</td>
</tr>
<tr>
<td>D57.8-</td>
<td>282.68</td>
<td>Other sickle-cell disease</td>
</tr>
<tr>
<td>G35</td>
<td>340</td>
<td>Multiple sclerosis</td>
</tr>
<tr>
<td>H44.2-</td>
<td>360.21</td>
<td>Progressive high (degenerative) myopia</td>
</tr>
<tr>
<td>H33.1-</td>
<td>361.10 to 361.14</td>
<td>Retinoschisis and retinal cysts</td>
</tr>
<tr>
<td>H33.19-</td>
<td>361.19</td>
<td>Other retinoschisis and retinal cysts</td>
</tr>
<tr>
<td>H33.2-</td>
<td>361.2</td>
<td>Serous retinal detachment</td>
</tr>
<tr>
<td>E10.3-, E11.3-</td>
<td>362.01 to 32.07</td>
<td>Diabetic retinopathy</td>
</tr>
<tr>
<td>E35.0-</td>
<td>362.10 to 362.18</td>
<td>Other background retinopathy and retinal vascular changes</td>
</tr>
<tr>
<td>H34.-</td>
<td>362.30 to 362.37</td>
<td>Retinal vascular occlusion</td>
</tr>
<tr>
<td>H35.7-</td>
<td>362.41 to 362.43</td>
<td>Separation of retinal layers</td>
</tr>
<tr>
<td>H35.5-</td>
<td>362.50 to 362.57</td>
<td>Macular degeneration (senile), unspecified</td>
</tr>
<tr>
<td>H35.5-</td>
<td>362.70 to 362.77</td>
<td>Hereditary retinal dystrophies</td>
</tr>
<tr>
<td>H35.6-</td>
<td>362.81</td>
<td>Retinal hemorrhage</td>
</tr>
<tr>
<td>H35.81, H35.82</td>
<td>362.83 to 362.84</td>
<td>Retinal edema and retinal ischemia</td>
</tr>
<tr>
<td>H30.0-</td>
<td>363.00 to 363.08</td>
<td>Focal chorioretinitis and focal retinochoroiditis</td>
</tr>
<tr>
<td>H30.1-</td>
<td>363.10 to 363.15</td>
<td>Disseminated chorioretinitis and disseminated retinochoroiditis</td>
</tr>
</tbody>
</table>

20 NOTE: Listed codes are representative of covered diagnoses but differences in payment policies exist for many contractors. This list is neither exhaustive nor universally accepted. See your payer bulletins. The ICD-10 codes shown are not a precise crosswalk; the ending “dash” means a longer code may be required and contains greater specificity than the corresponding ICD-9 code. Some policies may not use all the codes in a particular range as listed.
Table 2  Common Diagnosis Codes for Fluorescein Angiography

<table>
<thead>
<tr>
<th>ICD-10</th>
<th>ICD-9</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H30.2-</td>
<td>363.20 to 363.22</td>
<td>Other and unspecified forms of chorioretinitis and retinochoroiditis</td>
</tr>
<tr>
<td>H31.02-</td>
<td>363.31</td>
<td>Solar retinopathy</td>
</tr>
<tr>
<td>H31.1-</td>
<td>363.41 to 363.43</td>
<td>Choroidal degeneration</td>
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<tr>
<td>H31.21, H31.29</td>
<td>363.55 to 363.56</td>
<td>Hereditary choroidal dystrophies</td>
</tr>
<tr>
<td>H31.32-</td>
<td>363.63</td>
<td>Choroidal rupture</td>
</tr>
<tr>
<td>H31.41- to</td>
<td>363.71 to 363.72</td>
<td>Choroidal detachment</td>
</tr>
<tr>
<td>H31.42-</td>
<td></td>
<td></td>
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<tr>
<td>H53.10, H53.12-</td>
<td>368.10 to 368.13</td>
<td>Subjective visual disturbance</td>
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<tr>
<td>H53.14-</td>
<td></td>
<td></td>
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<tr>
<td>H47.32-</td>
<td>377.21</td>
<td>Drusen of optic disc</td>
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<td>H47.33-</td>
<td>377.24</td>
<td>Pseudopapilledema</td>
</tr>
<tr>
<td>H47.01-</td>
<td>377.41</td>
<td>Ischemic optic neuropathy</td>
</tr>
<tr>
<td>Z09</td>
<td>V67.51</td>
<td>Following completed treatment with high-risk medication</td>
</tr>
</tbody>
</table>

ICG Angiography

The covered indications for ICG angiography are fewer than for fluorescein angiography (Table 3). Few MAC policies exist for ICG angiography; a representative policy can be found at Noridian’s website.\(^{21}\) CGS Administrators also has a policy that references ICG\(^{22}\) as do First Coast Service Options\(^{23}\) and Palmetto GBA.\(^{24}\) The Noridian LCD for ICG angiography notes the following.

“The medical record should include documentation of one of the following when indocyanine green angiography is performed:

- Evidence of ill-defined subretinal neovascular membrane or suspicious membrane on previous fluorescein angiography
- Retinal pigment epithelium (RPE) does not show subretinal neovascular membrane on current fluorescein angiography

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• Presence of subretinal hemorrhage or hemorrhagic retinal pigment epithelium. A fluorescein angiography need not have been done previously.

• ICG angiography of an asymptomatic contralateral eye without new abnormalities on ophthalmoscopic exam, in patients with unilateral AMD or other disease, will be denied as not medically necessary.”

National Government Services states:25

“Indocyanine green angiography is considered medically necessary no more than nine (9) times per eye in 365 days. Claims exceeding this frequency will be suspended and reviewed for medical necessity.”

Table 3  Common Diagnosis Codes for ICG Angiography26

<table>
<thead>
<tr>
<th>ICD-10</th>
<th>ICD-9</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H35.05-</td>
<td>362.16</td>
<td>Retinal Neovascularization NOS</td>
</tr>
<tr>
<td>H35.0-</td>
<td>362.17</td>
<td>Other intraretinal microvascular abnormalities</td>
</tr>
<tr>
<td>H35.71-</td>
<td>362.41</td>
<td>Central serous retinopathy</td>
</tr>
<tr>
<td>H35.72-</td>
<td>362.42</td>
<td>Serous detachment of retinal pigment epithelium</td>
</tr>
<tr>
<td>H35.73-</td>
<td>362.43</td>
<td>Hemorrhagic detachment of retinal pigment epithelium</td>
</tr>
<tr>
<td>H35.32</td>
<td>362.52</td>
<td>Exudative macular degeneration</td>
</tr>
<tr>
<td>H35.53</td>
<td>362.75</td>
<td>Other dystrophies of sensory retina</td>
</tr>
<tr>
<td>H35.6-</td>
<td>362.81</td>
<td>Retinal hemorrhage</td>
</tr>
<tr>
<td>H30.1-</td>
<td>363.15</td>
<td>Disseminated retinitis and retinochoroiditis</td>
</tr>
<tr>
<td>H31.30-</td>
<td>363.61</td>
<td>Choroidal hemorrhage unspecified</td>
</tr>
<tr>
<td>H31.31-</td>
<td>363.62</td>
<td>Expulsive choroidal hemorrhage</td>
</tr>
<tr>
<td>H31.32-</td>
<td>363.63</td>
<td>Choroidal rupture</td>
</tr>
<tr>
<td>H31.41-</td>
<td>363.72</td>
<td>Hemorrhagic choroidal detachment</td>
</tr>
<tr>
<td>H31.8, H31.9</td>
<td>363.8</td>
<td>Other disorders of choroid</td>
</tr>
</tbody>
</table>


26 NOTE: Listed codes are representative of covered diagnoses but differences in payment policies exist for many contractors. This list is neither exhaustive nor universally accepted. See your payer bulletins. The ICD-10 codes shown are not a precise crosswalk; the ending “dash” means a longer code may be required and contains greater specificity than the corresponding ICD-9 code. Some policies may not use all the codes in a particular range as listed.
Other payers generally have the same opinion; there are instances where ICG is needed. Aetna\textsuperscript{27} notes, “\textit{indocyanine green angiography [is] medically necessary when it is used as an adjunct to fluorescein angiography in the diagnosis and treatment of any of the following conditions:}

\begin{itemize}
  \item Acute posterior multi-focal placoid pigment epitheliopathy; or
  \item Exudative senile macular degeneration; or
  \item Hemorrhagic detachment of retinal pigment epithelium; or
  \item Retinal hemorrhage; or
  \item Retinal neovascularization; or
  \item Serous detachment of retinal pigment epithelium.”
\end{itemize}

Some physicians may feel that fundus imaging is indicated for a particular condition, but if that condition does not appear on the payer’s coverage list, reimbursement from the payer cannot be expected.

\textbf{BILLING ISSUES}

\textbf{Procedure Codes}

There are several codes that may be used to describe testing performed with the Optos ultra-widefield scanning laser ophthalmoscopes.

\begin{itemize}
  \item 92235 …..  \textbf{Fluorescein angiography (includes multiframe imaging) with interpretation and report}
  \item 92240 …..  \textbf{Indocyanine green angiography (includes multiframe imaging) with interpretation and report}
  \item 92250 ….  \textbf{Fundus photography with interpretation and report}
  \item S9986 ….  \textbf{Not medically necessary service (patient is aware that service not medically necessary)}
\end{itemize}

\begin{itemize}
  \item Use CPT code 92235 to report fluorescein angiography performed with the \textbf{optomap} \textit{fa}.
  \item Use CPT code 92240 to report ICG angiography performed with the \textbf{optomap} \textit{icg}.
\end{itemize}

• Use CPT code 92250 to report both fundus photography and autofluorescence (AF) fundus imaging performed with the optomap plus, but do not report 92250 more than once on the same day.

• For screening with the optomap retinal exam, report 92250-GY or S9986 if the beneficiary asks you to file a claim to obtain a denial.

Modifiers

The following modifiers may be applicable on claims for fundus photography, fluorescein angiography or ICG angiography.

26 ........ Professional component of a diagnostic test
52 ........ Reduced service (e.g., FP of only one eye)
AQ ........ Services provided in a Health Professional Shortage Area (HPSA) (Medicare modifier only; replaces QB and QU)
GA ........ Waiver of liability statement issued as required by payer policy (signed ABN on file)
GX ........ Notice of liability issued, voluntary under payer policy (signed ABN on file)
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
LT ........ Left Eye
RT ........ Right Eye
TC ........ Technical component of a diagnostic test

Does SLO replace a dilated fundus exam?

The use of nonmydriatic retinal imaging may enhance a dilated clinical examination, but it does not substitute for it.28 Dilated fundus exams remain the standard of care for retinal evaluation in the general population.29,30

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From a reimbursement perspective, the 1997 Documentation Guidelines for Evaluation and Management Services (Ophthalmology)\(^{31}\) provides a detailed definition of the elements of an eye exam. For coding purposes, a “…comprehensive eye exam requires ophthalmoscopic examination through dilated pupils (unless contraindicated) of optic discs including size, C/D ratio, appearance (e.g., atrophy, cupping, tumor elevation) and nerve fiber layer, posterior segments including retina and vessels (e.g., exudates and hemorrhages)”. Lower levels of service do not make this requirement. Since ophthalmologists and optometrists may also use CPT’s General Ophthalmological Services code set (i.e., 920xx), colloquially known as “eye codes”, “…Comprehensive ophthalmological services describes a general evaluation of the complete visual system. It often includes, as indicated…examination with cycloplegia or mydriasis…”. Intermediate ophthalmological services describes an exam that “…may include the use of mydriasis for ophthalmoscopy” but does not require it.

When is SLO billed as SCODI?

In the late-1990s, during the product launch of the optomap, a question was raised about reporting retinal imaging using CPT 92135, scanning computerized ophthalmic diagnostic imaging. Optos uses scanning laser ophthalmoscopy to capture images of the retina. However, the images are 2-dimensional, rather than 3-dimensional and there is no quantitative measurements that typify SCODI using other instruments. Using the coding principle that, “A provider or coder using the CPT coding system first chooses the name and associated code of the procedure or service which most accurately identifies and describes the service(s) performed”, we opined that 92250 was the most appropriate choice to report digital fundus imaging with optomap plus.

Because opinions about coding are numerous, it is useful to identify an authoritative source of information. CPT Assistant\(^5\) is a publication of the American Medical Association (AMA); on the cover of the magazine is the tag line “official source for CPT coding guidance”. In April, 1999, CPT Assistant published the following question and answer.\(^{32}\)

\textbf{Q:} Our office performs fundus photography examinations using a scanning laser which produces a fundus photograph. Is it appropriate to report CPT code 92135 for this method of examination of the fundus?

\textbf{A:} CPT code 92135, Scanning computerized ophthalmic diagnostic imaging (eg, scanning laser) with interpretation and report, unilateral, is intended to report a method of objective measurement involving a


\(^{32}\) CPT Assistant. April 1999. p. 10
quantitative determination of the thickness of the retinal nerve fiber layer and computer analysis of the data with the final results of creation of a database file, saving patient data for future comparison in follow-up examinations. It is not appropriate to assign CPT code 92135 for scanning laser fundus photography. CPT code 92250, Fundus photography with interpretation and report, that describes generation of a retinal image only and no data generation would be appropriately assigned for this procedure.

Subsequently, some coders took a different view.\textsuperscript{33,34} Fifteen years later, \textsl{CPT Assistant} revisited this same topic and published an expanded answer.\textsuperscript{35}

\textbf{Q:} Our office performs fundus photography examinations using a scanning laser which produces a fundus photograph. Is it appropriate to report CPT code 92135 [now codes 92133 and 92134] for this method of examination of the fundus?

\textbf{A:} If the scanner produces an image of the retina or optic nerve along with other data and imaging for quantitative analysis, it would be appropriate to report a single service from the appropriate scanning computerized ophthalmic diagnostic imaging code range (92133-92134). If only an image is obtained, then code 92250 would be reported... It is important to note that if the only necessary service provided is generating a fundus photograph without the need to quantify the nerve fiber layer and to analyze the data via a computer, then reporting code 92250 is appropriate, even if the photograph was taken with a scanning laser.

From this updated answer, we learned that proper code selection depends on the purpose of the test as well as the presence of quantified data. Optos’ scanning laser ophthalmoscopes do not provide quantified data, so 92250 is the best choice to report retinal imaging with these instruments. Alternately, when you use SLO for screening, report it with 92250-GY or S9986 if the beneficiary asks you to file a claim to obtain a denial.

\textsuperscript{33} Haley, JM. Coding for New Technology: The Optos Dilemma. Published November 2004. \texttt{Link here.} Accessed 01/20/16.
\textsuperscript{34} Rumpakis, J. WTF About Fundus Photography. Review of Optometry. Published May 15, 2014. \texttt{Link here.} Accessed 01/20/16.
\textsuperscript{35} \textsl{CPT Assistant}. Coding Clarification: Special Ophthalmological Services (92133, 92134). Nov. 2014. p. 10
Autofluorescence Imaging

In December, 2014, CPT Assistant provided coding guidance for AF.36

**Q:** When an ophthalmologic photographer takes autofluorescent (AF) images without the need for intravenous fluorescein or indocyanine green, how would AF imaging be reported?

**A:** Code 92250, Fundus photography with interpretation and report, would be reported either as part of a series of images or as a stand-alone service. An analogous service … obtaining red-free images at the time of color photography, is not reported separately.

All of these services include a technical component (i.e., the images) and a professional component (i.e., the interpretation). The use of special software, such as the V² Vantage or OptosAdvance, does not constitute another billable service; it is part of the professional component or interpretation. Likewise, annotations with a pen on the printed copies of the digital images are properly considered part of the physician’s interpretation and not a separate service. Specifically, drawing on a digital image is not extended ophthalmoscopy (92225, 92226).

**Bilateral vs Unilateral**

Some diagnostic tests are defined by Medicare as bilateral (i.e., billed once for both eyes), while some are defined as unilateral (i.e., billed per eye). Other third party payers may disagree with these definitions. Even though the CPT code descriptions for some ophthalmic procedures do not state “bilateral”, Medicare nonetheless defines them as such. For example, fundus photography (92250) is defined as a bilateral test within the Medicare program. Reimbursement is the same whether one eye or both eyes are tested. No additional reimbursement is made for bilateral ophthalmic tests if they are billed with modifier 50 or RT/LT.

Fluorescein and ICG angiography are unilateral tests within the Medicare program. If both eyes merit testing, payers generally require the use of modifier 50 and “1 unit” on the claim;37 double your unilateral charge to prevent an underpayment. It is important to note that Medicare believes this procedure is commonly performed on just one eye; reference shots are incidental and not billable. Other than Medicare’s multiple procedure payment reduction (MPPR) which is discussed below, payment is 100% for each

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37 Note that there is variation as to whether to bill one line with modifier -50 for diagnostic tests, or two lines with -RT and -LT, even between Medicare contractors. Check your local policy for correct billing.
medically indicated eye tested and properly interpreted. If only one eye is tested, modifier RT or LT is used to note this on a claim.

Sample Claims

**Example 1  Age-related macular degeneration**

During dilated fundus exam of the posterior pole, several small drusen were noted. You order and perform an **optomap plus** Medical Retinal Exam to establish the extent of the 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.

One year later, the patient is seen and no change in the AMD is noted on the dilated fundus examination. Repeating the **optomap plus** Medical Retinal Exam would not be warranted; the earlier retinal images suffice.

**Example 2  Diabetes with retinopathy**

Your patient with Type II diabetes on oral hypoglycemics presents for a yearly examination. You note an abnormal fundus with mild non-proliferative diabetic retinopathy and no macular edema. For a more detailed evaluation and to permit re-evaluation at a later date, you order and perform an **optomap plus** Medical Retinal Exam. In addition to the exam (shown as 9xxxx), the claim will read as follows.
### Example 3  
**Monocular retinal imaging**

You are a retina specialist consulted by another eyecare provider concerning a patient 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 and perform an **optomap plus** Medical Retinal Exam of the affected eye and document your findings in your report. In addition to the exam (shown as 9xxxx), the claim will read as below.

<table>
<thead>
<tr>
<th>REFERRING/ORDERING PROVIDER</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DK</td>
<td>J Emdy MD</td>
</tr>
</tbody>
</table>

#### ADDITIONAL CLAIM INFORMATION

**DIAGNOSIS OR NATURE OF ILLNESS OR INJURY**

| A. | H35.372 |

#### Dates of Service

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td>mm dd yyyy</td>
<td>mm dd yyyy</td>
</tr>
</tbody>
</table>

**PROCEDURES, SVCS**

<table>
<thead>
<tr>
<th>EMG</th>
<th>CPT/HCPCS</th>
<th>MODIFIER</th>
<th>Charges</th>
<th>UNITS</th>
<th>EPSDT</th>
<th>QUAL.</th>
<th>PROVIDER I.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: If ICD-9 is used, the diagnosis in box 21A would be 362.56, and the “ICD Ind” field (inside Box 21) would have a “9” rather than “0”. Note that ICD-10 has a combination code for diabetes with proliferative diabetic retinopathy but without macular edema, so only one ICD-10 code is needed.

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A few 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 eye is imaged.\(^{38}\)

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\(^{38}\) CGS Administrators, LLC. LCD L34175. Ophthalmic Angiography (Fluorescein and Indocyanine Green). Superseded. [Link here](#). Accessed 01/20/16. (See Section on “Limitations”)
Example 4  Proliferative diabetic retinopathy

You are a retinal specialist referred a 67 y/o male with uncontrolled Type II diabetes who denies using insulin. The patient complains that vision is increasingly blurred OU. You find proliferative diabetic retinopathy and diabetic macular edema OU during the dilated fundus examination, and order an optomap plus Medical Retinal Exam and an optomap fa Angiography OU to determine the extent of the damage. In addition to the exam (shown as 9xxxx), the claim will read as below.

<table>
<thead>
<tr>
<th>17 REFERRING/ORDERING PROVIDER</th>
<th>17a.</th>
<th>17b.</th>
<th>NPI</th>
<th>1234567890</th>
</tr>
</thead>
<tbody>
<tr>
<td>DK J Emidy MD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>19 ADDITIONAL CLAIM INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>21 DIAGNOSIS OR NATURE OF ILLNESS OR INJURY</td>
</tr>
<tr>
<td>A. E11.351</td>
</tr>
<tr>
<td>ICD Ind. 0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>From MM DD YY</td>
<td>To MM DD YY</td>
<td>EMG</td>
<td>CPT/HCPCS</td>
<td>MODIFIER</td>
<td>POS</td>
<td>$ CHARGES</td>
<td>UNITS</td>
<td>EPSDT QUAL</td>
<td>PROVIDER I.D.</td>
</tr>
<tr>
<td>mm dd yyyy</td>
<td>11</td>
<td>9xxxx</td>
<td></td>
<td>A</td>
<td>xxx</td>
<td>xx</td>
<td>1</td>
<td>NPI</td>
<td>1234567890</td>
</tr>
<tr>
<td>mm dd yyyy</td>
<td>11</td>
<td>92250</td>
<td></td>
<td>A</td>
<td>xxx</td>
<td>xx</td>
<td>1</td>
<td>NPI</td>
<td>1234567890</td>
</tr>
<tr>
<td>mm dd yyyy</td>
<td>11</td>
<td>92235</td>
<td>50</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td>NPI</td>
<td></td>
</tr>
</tbody>
</table>

Note: If ICD-9 is used, you will have diagnoses in box 21A, B and C as 250.52, 362.02 and 362.07. ICD-10 assigns a “combination code” and as such, incorporates all 3 of the ICD-9 diagnoses into a single code. The “ICD Ind” field (inside Box 21) would have a “9” rather than “0”.

FA OU can be billed as either 92235-50 or 92235-RT and 92235-LT. The payment is the same.

Example 5  Subretinal neovascularization

A 60 y/o male patient was diagnosed with subretinal neovascularization near the macula of his left eye. Fluorescein and indocyanine green angiography was ordered for the left eye, and two reference shots were made on the right eye. In addition to the exam (shown as 9xxxx), the claim will read as below.
Multiple Procedure Payment Reduction

Medicare has implemented a payment reduction when multiple tests are performed on a patient 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 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. All **optomap** testing codes are included in the list. For example, when fluorescein angiography is performed bilaterally and fundus photography is also performed, the MPPR has the following effect on Medicare reimbursement.

### Sample MPPR Calculation

<table>
<thead>
<tr>
<th>Test</th>
<th>Professional</th>
<th>Technical</th>
<th>20% Reduction</th>
<th>Payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>92235-RT (FA)</td>
<td>$47.62</td>
<td>$63.02</td>
<td>None</td>
<td>$110.64</td>
</tr>
<tr>
<td>92235-LT (FA)</td>
<td>$47.62</td>
<td>$63.02</td>
<td>&lt;$12.60&gt;</td>
<td>$98.04</td>
</tr>
<tr>
<td>92250 (FP)</td>
<td>$24.35</td>
<td>$55.14</td>
<td>&lt;$11.03&gt;</td>
<td>$68.46</td>
</tr>
</tbody>
</table>

2016 National Medicare Physician Fee Schedule, PAR allowable

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Note: If ICD-9 is used, the diagnosis in box 21A would be 362.16, and the “ICD Ind” field (inside Box 21) would have a “9” rather than “0”.

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39 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). [Link here](#). Accessed 01/20/16.
Advance Beneficiary Notice of Noncoverage

An ABN (CMS-R-131) 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 applies to 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.

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.

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.

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 from Option 1, 2 or 3.

- Option 1 I want the items or services listed above. You may ask to be paid now, but I also want Medicare billed for an official decision on payment, which is sent to me on a Medicare Summary Notice (MSN). I understand that if Medicare doesn’t pay, I am responsible for payment, but I can appeal to Medicare by following the directions on the MSN. If Medicare does pay, you will refund any payments I made to you, less co-pays or deductibles.

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• Option 2  I want the items or services listed above, but do not bill Medicare. You may ask to be paid now as I am responsible for payment, and I cannot appeal if Medicare is not billed.

• Option 3  I don’t want the items or services listed above. I understand with this choice I am not responsible for payment, and I cannot appeal to see if Medicare would pay.

If the beneficiary chooses Option 1, you must file a claim and append an appropriate modifier to the reported item(s) or service(s). Option 2 applies to situations where Medicare is precluded from paying for the item or service and the beneficiary does not dispute the point; you are not required to file a claim. If the beneficiary chooses Option 3, there is no claim to file or charge to make; the service is not provided because the patient declines.

You do not need an ABN for items or services that are statutorily (i.e., by law) non-covered by Medicare. Statutorily non-covered services in an eye care practice include refractions and cosmetic procedures such as refractive surgery. Instructions, published on September 5, 2008,41 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.

In CMS Transmittal R1921CP,42 effective April 1, 2010, two modifiers were updated to distinguish between voluntary and required use of liability notices.

• Modifier GA is now defined as “Waiver of Liability Statement Issued as Required by Payer Policy”. It applies when you believe Medicare will consider a service not medically necessary in a particular situation. Ask the patient to sign an ABN and submit your claim with modifier GA, allowing the payer to decide if the service is covered.

• Modifier GX is defined as “Notice of Liability Issued, Voluntary Under Payer Policy”. It applies when a service is always noncovered; it addresses the fact that most beneficiaries will elect Option 1 in the hope that Medicare might pay, despite your assurances to the contrary. Therefore, if the patient selects Option 1, append modifiers GX and GY to that claim to obtain a denial.

• Modifier GY is defined as “Item or service statutorily excluded or does not meet the definition of any Medicare benefit”.

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

The Centers for Medicare & Medicaid Services (CMS) instructs the MACs to treat some concurrent procedures as a “bundle” for payment purposes. This means that no separate payment is made for the test outside of the bundled procedure. In addition, some procedures are considered “mutually exclusive” with others. This means that, when two procedures or tests are performed on the same day on the same patient, only one of the procedures will be paid; generally the one of lesser value. The National Correct Coding Initiative (NCCI) is the regulation that updates these payment rules, usually on a quarterly basis. Some MACs have also published local policies with additional limitations. You may not use an ABN to circumvent the NCCI edits.

- Fundus photography (92250) is considered mutually exclusive with scanning computerized ophthalmic diagnostic testing of the posterior segment (92133, 92134). It is also bundled with ICG angiography (92240).
- Fluorescein angioscopy (92230) is bundled with fluorescein angiography (92235).
- Since April, 2003, minimal eye exams (99211) performed by a medical assistant or technician are bundled with concurrent diagnostic tests. Examinations or consultations by a physician on the same day as a diagnostic test are not bundled.

Anti-Markup Rule (Purchased Diagnostic Tests)

If you order and bill for scanning laser ophthalmoscopy 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.43,44 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, formerly referred to 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.45

HPSA

Medicare pays a quarterly 10% premium to physicians who provide services in a Health Professional Shortage Area (HPSA). This premium is pertinent only to professional services, and does not apply to the technical component (TC) of diagnostic tests. Until recently, separating the professional and technical components on the claim was required in order to receive bonuses; this is no longer necessary. The carrier will automatically calculate bonus payments on the professional component.

Effective January 1, 2005, changes to the HPSA bonus included an automatic bonus payment in many locations. The HPSA automated file is updated on an annual basis. Individual Medicare contractors provide quarterly updates on their websites for changes to HPSA designations.

Previously, modifier QB, for services provided in rural HPSAs, and modifier QU, for services provided in urban HPSAs, were required on all eligible services. Modifier AQ replaced these modifiers on January 1, 2006. The distinction between rural and urban HPSAs no longer exists. Modifier AQ may be required on eligible services provided in newly designated areas not posted on the automatic listing. No modifier is required for locations posted for automatic bonus payments.46

As an illustration, if the fundus photo in the first Sample Claim, above, had been performed in a HPSA not receiving automatic bonus payments, then the claim would read as follows.

<table>
<thead>
<tr>
<th>17 REFERRING/ORDERING PROVIDER</th>
<th>17a.</th>
<th>17b.</th>
</tr>
</thead>
<tbody>
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<td>DK J Emly MD</td>
<td>NPI</td>
<td>1234567890</td>
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<table>
<thead>
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<th>19 ADDITIONAL CLAIM INFORMATION</th>
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<tbody>
<tr>
<td>A.</td>
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<tr>
<td>B.</td>
</tr>
<tr>
<td>C.</td>
</tr>
<tr>
<td>D.</td>
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<table>
<thead>
<tr>
<th>21 DIAGNOSIS OR NATURE OF ILLNESS OR INJURY</th>
<th>ICD Ind.</th>
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<tbody>
<tr>
<td>A. H35.31</td>
<td>0</td>
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<tr>
<td>B.</td>
<td></td>
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<tr>
<td>C.</td>
<td></td>
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<td>xxx xx</td>
<td>1</td>
<td>NPI</td>
<td>1234567890</td>
<td></td>
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Note: If ICD-9 is used, the diagnosis in box 21A would be 362.51, and the "ICD Ind" field (inside Box 21) would have a "9" rather than "0".

**SUPERVISION**

Effective July 1, 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.\(^{47}\)

Fluorescein and indocyanine green angiography require *direct* supervision. Direct supervision in the office setting means the physician must be present in the office suite and immediately available to furnish assistance and direction throughout the performance of the test. The physician is not required to be in the room at the time of the test. In 2016, the claim for reimbursement must identify the supervising physician as the billing physician.\(^ {48,49}\)

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\(^{48}\) 42 CFR 410.26(b)(5) Billing physician as the supervising physician

\(^{49}\) 80 FR 70885 CMS-1631-FC 2016 Medicare Program; revisions to payment policies under the physician fee schedule, Nov 16, 2015
DOCUMENTATION

The descriptions in CPT for fundus photography, fluorescein angiography, and indocyanine green angiography include the phrase “with interpretation and report”. 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. 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, 42 CFR 415.120 (a) states:

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

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

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

In ophthalmology, 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.

- FP of optic nerve OU again to reassess POAG progression
- January 30, 2015
- Technician: Mary Smith, COA
- Some image blur due to cataracts
- Good patient cooperation
- Cupping OU; optic disc hemorrhage, OU
- POAG, shows progression since last visit
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.

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.”

**UTILIZATION**

Medicare utilization rates are published and are shown 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 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 2013 show that fundus photography was performed with about 8% of all office visits by ophthalmologists. That is, for every 100 exams performed on Medicare beneficiaries, Medicare paid for this service about 8 times. For optometrists, the utilization rate is about 13%.

For fluorescein angiography, Medicare utilization was about 7% of all office visits by ophthalmologists. That is, for every 100 exams and consultations performed on Medicare beneficiaries, Medicare paid for this service about 7 times. For optometrists, the utilization rate is below a reportable amount.

Medicare utilization of indocyanine green angiography (92240) was less than 1%.

**PAYMENT LEVELS**

CPT code 92250 is defined as bilateral, so reimbursement is for both eyes. The 2016 national Medicare Physician Fee Schedule allowable amounts are shown in Table 3. The amounts are adjusted in each area by local indices. Amounts are shown for participating
and non-participating physicians.\textsuperscript{54} Other payers set their own rates, which may differ significantly from the Medicare published fee schedule.

Table 3  \textbf{Medicare National Payment Rates for Fundus Photography}

<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>$79.49</td>
<td>$75.51</td>
<td>$86.84</td>
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<tr>
<td>92250-TC</td>
<td>$55.14</td>
<td>$52.38</td>
<td>$60.24</td>
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<tr>
<td>92250-26</td>
<td>$24.35</td>
<td>$23.13</td>
<td>$26.60</td>
</tr>
</tbody>
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CPT code 92235 is defined as unilateral, so reimbursement is per eye. The 2016 national Medicare Physician Fee Schedule allowable amounts are shown in Table 4. The amounts are adjusted in each area by local indices.

Table 4  \textbf{Medicare National Payment Rates for Fluorescein Angiography}

<table>
<thead>
<tr>
<th>Code</th>
<th>PAR</th>
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<tbody>
<tr>
<td>92235</td>
<td>$110.64</td>
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<td>92235-26</td>
<td>$47.62</td>
<td>$45.24</td>
<td>$52.02</td>
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</tbody>
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CPT code 92240 is defined as unilateral, so reimbursement is per eye. The 2016 national Medicare Physician Fee Schedule allowable amounts are shown in Table 5. The amounts are adjusted in each area by local indices.

\textsuperscript{54} 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. \textcolor{blue}{Link here}. Accessed 01/20/16.
Table 5  Medicare National Payment Rates for ICG Angiography

<table>
<thead>
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<th>Code</th>
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<td>$257.43</td>
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<tr>
<td>92240-26</td>
<td>$64.81</td>
<td>$61.57</td>
<td>$70.80</td>
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CONCLUSION

A well-known proverb says that a picture is worth a thousand words. This is particularly true for ophthalmologists and optometrists for whom visualization of a problem in the eye can lead to better vision for the patient. Unlike ophthalmoscopy where the examiner must be content with a brief look at the fundus while the patient grudgingly submits to an uncomfortable examination, retinal imaging with optomap provides crisp, detailed, close up pictures of the posterior pole as well as the mid and far periphery. It also affords the opportunity for leisurely study of abnormalities, as well as subsequent use as a benchmark for comparison purposes. Retinal images even have utility for people other than the examining physician. For example, the images are helpful: in telemedicine (i.e., screening), during litigation (e.g., malpractice), as part of criminal investigations (e.g., shaken baby), for teaching purposes, and for other caregivers when patients desire a transfer of medical records.

As the usage of digital imaging has grown, along with expanding indications and wider availability of this technology, so also have the reimbursement regulations governing these services. Some applications of retinal imaging, particularly as an aid to screening, are not covered by Medicare and most other third party payers. For covered services, chart documentation of the physician’s interpretation is 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 optomap, optomap plus, optomap fa, and optomap icg however the responsibility for appropriate usage, adequate documentation and proper coding are always the physician’s.
Practice Management Tips

- Other than screening, get a physician’s order with appropriate medical rationale before providing retinal imaging.
- Document the physician’s interpretation of the diagnostic test in a report within a short time, preferably within 24 - 72 hours.
- Autofluorescence (AF) testing is an incidental part of fundus photography (CPT 92250) and not separate or distinct. Code 92250 may only be used once per date of service. Having the patient return merely to use the 92250 code again would be improper.
- 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 financial waiver).
- Repeated testing is merited due to disease progression or new onset; otherwise repeat tests are of dubious value.
- Monitor NCCI bundles (e.g., FP with SCODI-P, ICG)
- Check Local Coverage Determinations (LCDs) for specific guidance in your area. Covered indications and claims submission instructions vary 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 SLO or fundus photographs as a surrogate for a dilated fundus exam.
- 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 Medicare anti-markup rules.
- Don’t automatically bill for bilateral FA and ICG angiography; reference photos of the other eye are incidental.