Corcoran Consulting Group

A Division of Ardare Corporation

Medicare Reimbursement for Imaging with the CIRRUS HD-OCT and CIRRUS photo

Prepared for

ZEISS

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Medicare Reimbursement for Imaging with the CIRRUS HD-OCT and CIRRUS photo

by

Corcoran Consulting Group
A Division of Ardare Corporation
560 E. Hospitality Lane ~ Suite 360
San Bernardino, California 92408

(800) 399-6565
www.corcoranccg.com

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

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

Disclaimer: *The reimbursement information is provided by Corcoran Consulting Group based on publicly available information from the CMS, the AMA, and other sources. This document is not an official source nor is it a complete guide on all matters pertaining to coding (CPT, HCPCS or ICD-10) and reimbursement. Neither Carl Zeiss Meditec, Inc. nor Corcoran Consulting Group guarantees that the use of this information will result in payment for services. The reader is reminded that this information can and does change over time, and may be incorrect at any time following publication. The continued availability of cited references as hyperlinks, whether embedded or not, cannot be ensured.*

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INTRODUCTION

This monograph describes reimbursement for a variety of imaging services using CIRRUS™ HD-OCT and CIRRUS™ photo instruments from ZEISS and the associated optional add-on software and hardware. These tests include: scanning computerized ophthalmic diagnostic imaging of the anterior (SCODI-A) and posterior segment (SCODI-P) of the eye, fundus photography (FP), as well as fluorescein and indocyanine angiography (FA and ICG).

Much of the information in this document is taken from official publications of the Medicare program. The reader is encouraged to check with the local Medicare Administrative Contractor (MAC) for additional information and instructions. For other third party payers, we have used the coding concepts contained in CPT and published by the American Medical Association; diagnosis codes are from ICD-10-CM.

Documentation of diagnostic tests, and the medical rationale for them, is key to reimbursement so we describe the required elements in detail. Since economic analyses are a necessary part of any capital budgeting decision, we incorporated Medicare's payment rates for these tests, as well as recent Medicare utilization rates.

THE INSTRUMENTS[1]

The CIRRUS HD-OCT is a versatile diagnostic imaging platform that combines scanning laser fundus imaging with high-resolution spectral-domain OCT. Depending on the instrument and configuration, the CIRRUS HD-OCT can perform fundus imaging, anterior- and posterior-segment OCT, and OCT angiography (via ZEISS AngioPlex). PanoMap™ Wide-Field displays are a standard analysis on all CIRRUS HD-OCT models. Additionally, PanoMap capability yields structural data for the entire posterior pole from already-existing Macular Cube and Optic Disc Cube scans without altering scan protocols.[2,3]

Figures 1 and 2 show one of the CIRRUS HD-OCT devices and the add-on specialty lenses, respectively. Figure 3 tabulates the instrument models, base capabilities, and module options.

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1 All product information and images courtesy of Carl Zeiss Meditec, Inc.

2 Carl Zeiss Meditec, Inc. Products. CIRRUS HD-OCT 5000 and 500. Datasheet. Link here. Accessed 10/19/21.

3 Carl Zeiss Meditec, Inc. Products. CIRRUS HD-OCT 5000 and 500. Specifications. Link here. Accessed 10/19/21.

Figure 1 **ZEISS CIRRUS HD-OCT 5000**

Figure 2 **Add-on lenses for ZEISS CIRRUS HD-OCT Anterior Chamber and Cornea**

Figure 3 **CIRRUS HD-OCT – Capabilities by Model**

		CIRRUS HD-OCT 5000	CIRRUS HD-OCT 500
OCT	Retina	x	x
	Glaucoma (Optic Nerve)	x	x
	PanoMap	x	x
	Anterior Segment Basic Imaging	x	x
	Anterior Segment Premier (includes all of the below features): • ChamberView • HD Angle • Wide Angle-to-Angle Scan • HD Cornea Scan • Epithelial Thickness Mapping (ETM)	Optional	Optional
Fundus	OCT-Angiography (ZEISS AngioPlex)	Optional	

Carl Zeiss Meditec, Inc. notes the following option is also available for the CIRRUS HD-OCT via the Anterior Segment Premiere Module:

> "*External lenses combine with software to offer superior anterior segment imaging:*

- *Two interchangeable lenses expand CIRRUS HD-OCT with corneal, anterior chamber, and wide angle to angle imaging*
- *Magnetic lens attachment makes switching to external lenses easy and fast*
- *Ergonomic lens design enables a comfortable 22-38 mm working distance from the patient's eye*"[4]

Carl Zeiss Meditec, Inc. and others also notes the following for the CIRRUS HD-OCT's Anterior Segment Premier Module:[5]

- "*ChamberView™ image: ChamberView provides an expansive 15.5 mm wide view of the entire anterior chamber to help identify patients at risk for angle closure glaucoma*
- *HD Angle Scan: High-resolution 6 mm angle image shows key anatomical landmarks including scleral spur to aid in the evaluation of the anterior chamber angle configuration*
- *Wide Angle-to-Angle Scan: Dual angle assessment with a 15.5 mm limbus to limbus view of the iris configuration*
- *HD Cornea Scan: 9 mm high-resolution scan ideal for assessing corneal health and pathology*"

Recently, ZEISS received FDA clearance for a new feature for this module to include epithelial thickness mapping (ETM). Industry and business websites note the following for this feature:

- *"ETM with CIRRUS provides a detailed nine-millimeter map of epithelial thickness that enables more thorough assessment of patients before refractive surgery, allows monitoring of the cornea's response to treatment, and aids in managing patients with ocular surface disorders such as dry eye and progressive corneal diseases such as keratoconus".*[6]

In addition, ZEISS also notes the following for ZEISS AngioPlex (OCT-Angiography, or OCT-A):[7]

- " *... ultra-clear 3D microvascular visualizations ...*"

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[4] Carl Zeiss Meditec, Inc. Products. Documents. CIRRUS HD-OCT 5000. Datasheet. Link here. Accessed 10/21/21.

[5] Carl Zeiss Meditec, Inc. Content. CIRRUS HD-OCT 5000. Datasheet. Link here. Accessed 10/19/21.

[6] Eyewire.News. March 8, 2019. ZEISS Receives FDA Clearance for Epithelial Thickness Mapping for CIRRUS HD-OCT. Link here. Accessed 10/19/21.

[7] Carl Zeiss Meditec, Inc. Brochure. ZEISS AngioPlex OCT Angiography. Link here. Accessed 10/19/21.

- " *… visualization of both vascular and structural information from a single non-invasive scan …*"
- "*Depth of retinal vasculature color coded for ease of visual assessment*"

The CIRRUS photo has the capability to do high-resolution OCT as well as full mydriatic or non-mydriatic fundus photography which, depending on the model, may include fundus autofluorescence, fluorescein angiography (FA) and indocyanine green angiography (ICG). Figure 4 shows a CIRRUS photo instrument. Figure 5 tabulates the capabilities of the two CIRRUS photo models.

Figure 4 **Image of CIRRUS photo**

Carl Zeiss Meditec, Inc. notes the following for CIRRUS photo:

> "*Correlate data from high-density OCT cubes, thickness and layer maps with results from superb color fundus images as well as* [depending on the model] *fundus autofluorescence and fluorescein angiography images … in one convenient sitting … Each modality by itself is a premier quality diagnostic instrument*".[8]

CIRRUS images (HD-OCT and photo) are captured digitally and have the capability to interface via DICOM-compatibility with electronic medical record systems. Multiple imaging formats (BMP, TIFF, JPEG, PNG) are available.

[8] Carl Zeiss Meditec, Inc. Products. Ophthalmology-Optometry. Link here. Accessed 10/19/21.

Figure 5 **CIRRUS photo – Capabilities by Model** [9]

		CIRRUS photo 800	CIRRUS photo 600
Spectral-Domain OCT	Retina	x	x
	Glaucoma	x	x
Fundus	Color	x	x
	Filtration: Red-free, Red, Blue	x	x
	Autofluorescence	x	Optional
	Flash settings	24 levels	16 levels
Field Angle	30º view	x	x
	Widefield Imaging (45º)	x	x
Angiography	Fluorescein Angiography	x	
	ICG Angiography	x	

INDICATIONS FOR USE

The American Academy of Ophthalmology (AAO) publishes Preferred Practice Patterns (PPP)[10] for many conditions, including: age-related macular degeneration, primary open-angle glaucoma, primary angle-closure glaucoma, idiopathic epiretinal membrane and vitreomacular traction, retinal vein occlusion, idiopathic macular hole, and diabetic retinopathy. According to the PPP, fundus photography, retinal and choroidal angiography (FA, ICG, and OCT-A), SCODI-A, and SCODI-P all provide objective documentation and can be used to establish a baseline for future comparisons as well as to follow disease progression.

The AAO's PPP further points out that these tests are more reproducible than clinical examination alone for detecting posterior segment disease.

In general, SCODI-P, FP, FA, ICG, and OCT-A are all performed to:

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

[9] Carl Zeiss Meditec, Inc. Products. CIRRUS OCT. Highlights. Link here. Accessed 10/19/21.

[10] American Academy of Ophthalmology. Preferred Practice Patterns. Link here. Accessed 10/19/21.

A variety of conditions and disease entities justify testing with SCODI-A. These include, but are not limited to, assessment of both corneal flap thickness and residual stromal thickness following LASIK, corneal edema or ectasia, visualization of malpositioned IOLs and other implants in the anterior segment, and evaluation of the anterior chamber angle in glaucoma.

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 (see Appendix for listings of common diagnoses).

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 imaging-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.[11]

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

Some ophthalmologists and optometrists may feel that a test is indicated for a particular condition, but when the patient's diagnosed condition does not appear on the payer's coverage list reimbursement cannot be expected. If payment is expected, it is important to notify patients in writing, prior to testing, of their financial responsibility for the test. See the discussion below on Financial Waivers (page 22).

In our research for this monograph, we found no published strict limitations for repeated fundus photography, although some payers have guidance. Frequency of testing is dependent on the disease and its activity. In general, these and all diagnostic tests are reimbursed when medically indicated and properly documented. Too-frequent testing can garner unwanted attention from Medicare and other payers.

SCODI-A

Coverage for SCODI-A focuses on imaging performed for specific forms of glaucoma (angle structures) and disorders of the cornea, iris, and ciliary body. The list of covered diagnoses is generally small and not all payers agree.

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[11] 42 CFR 411.15(a)(1). Particular services excluded from coverage. Link here. Accessed 10/19/21.

SCODI-P

Many LCDs for SCODI-P focus on indications for the diagnosis and management of early glaucoma and optic nerve disease. SCODI-P is also an important tool in the detection and monitoring of many diseases of the vitreous, retina, and choroid. Many MACs have expanded the scope of indications to include them. It is important to note that MACs and other payers do not all agree on a common list of diagnoses or technologies. Review your payer policies.

Wisconsin Physician Services (WPS), the MAC for some Midwestern states, in their LCD L34760 on Scanning Computerized Ophthalmic Diagnostic Imaging (SCODI),[12] notes for glaucoma:

> "*Technological improvements have rendered SCODI as a valuable diagnostic tool in the diagnosis and treatment of glaucoma. These improvements enable discernment of changes of the optic nerve … It is expected that only two (SCODI) exams/eye/year would be required …* [for] *the patient who has glaucoma or is suspected of having glaucoma.*"

They go on to note, with respect to retinal testing performed using SCODI-P:

> "*It is expected that no more than one exam per eye every two months would be required …* [when the] *condition is related to a retinal disease. Patients with retinal conditions undergoing active intravitreal drug treatment may be allowed one scan per month per eye … In addition, other conditions which may undergo rapid clinical changes monthly requiring aggressive therapy and frequent follow-up, such as macular hole and traction retinal detachment, may also require monthly scans.*"

OCT-Angiography (OCT-A)

OCT-A captures images and, through additional analysis, creates detailed images of the blood vessels within the retina and choroid. So, broadly speaking, the term "angiography" is appropriate; however, the historic use of this term predisposes ophthalmic technicians, medical assistants, and billing staff to assume that dye is injected. Prior to OCT-A, angiography of the retina and/or choroid required fluorescein or indocyanine green dye. In CPT, fluorescein angiography is reported with 92235, and indocyanine green angiography is reported with 92240. The tests described by these codes require the use of intravenous dyes, so neither code is an accurate description of OCT-A. According to the American

[12] Wisconsin Physicians Service Insurance Corporation. LCD L34760. Scanning Computerized Ophthalmic Diagnostic Imaging (SCODI). Kansas, Missouri, Nebraska, and Iowa. Revision effective date 09/01/18. Link Here Accessed 10/19/21.

Academy of Ophthalmology's Coding Program Manager,[13] OCT-A should not be reported with other angiography codes of the eye that involve the use of intravenous dye.

Because OCT-A provides additional information beyond traditional OCT of the retina and macula, it is more useful to the ophthalmologist or optometrist. From the patient's perspective, avoiding an intravenous injection is preferable. So, the question is asked: "Can I use another CPT code, in addition to 92134, to describe the added utility of this service?" The code that is sometimes suggested is 92499, *Unlisted ophthalmological procedure or service*. Since 92134 does adequately describe OCT-A, another CPT code is not necessary – it's duplicative. An unlisted code is only used when a CPT code describing the service is not available.

Adding CPT code 92499 to a claim for 92134 represents a billing error. If the payer allows both procedures, it constitutes an overpayment – only 92134 should be reimbursed. If the third party payer pays 92134 and denies 92499, no overpayment exists. However, collecting any additional payment from the beneficiary for 92499 is a fragmentation error, whether a financial waiver is used or not. An ABN or similar document cannot be used to split a single complete service into two parts for the purpose of collecting additional payment from the beneficiary. Under the provisions of the assignment agreement used by almost all ophthalmologists, the beneficiary is only responsible for copayments and deductibles associated with the covered service reported as 92134.

Fundus Photography

Palmetto GBA, the MAC for some Southern and mid-Atlantic states, in their local coverage determination (LCD) L33467 on Fundus Photography,[14] notes,

> "*In general, fundus photography is considered medically necessary only when it would assist in:*
>
> 1. *monitoring potential progression of a disease process; or*
> 2. *guidance in evaluating the need for or response to a specific treatment or intervention.*
>
> *In other words, medical necessity for fundus photography should guide a clinical decision.*
>
> *Therefore, baseline photos to document a condition that is reasonably expected to be static and/or not require future treatment would not be medically necessary.*"

[13] Vicchrilli, S. American Academy of Ophthalmic Executives. Q&A. 2016.

[14] Palmetto GBA. LCD L33467. Ophthalmology: Extended Ophthalmoscopy and Fundus Photography. South Carolina. Revision Effective Date 03/15/18. Link here. Accessed 10/29/21.

Importantly, CIRRUS HD-OCT imaging of the fundus during image capture via OCT technology is correctly categorized as fundus photography. See the specific examples below and "Other Coding Issues" for more discussion.

Fluorescein and ICG Angiography

Fluorescein and indocyanine green angiography are helpful to image the vascular flow of the retina and choroid as indicated. FA shares many (but not all) of the indications for fundus photography. ICG angiography has a far more restrictive coverage. Few MAC policies exist for ICG angiography; CGS Administrators has policies that reference ICG[15,16] as do First Coast Service Options[17] and Palmetto GBA.[18]

The CGS Administrators LCD for ICG angiography notes,

> "*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*
> - *Presence of subretinal hemorrhage or hemorrhagic retinal pigment epithelium. A fluorescein angiography need not have been done previously.*
>
> *Evidence of medical necessity must be documented in the medical record for each eye.*
>
> *Documentation, including photos, must be available to Medicare upon request.*"

CGS also states,

> "*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.*"

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15 CGS Administrators, LLC. LCD L34175 on Ophthalmic Angiography (Fluorescein and Indocyanine Green). Rev eff 10/01/2016. Link here. Accessed 10/19/21.

16 CGS Administrators, LLC. LCA A52395 on Ophthalmic Angiography (Fluorescein and Indocyanine Green) – Supplemental Instructions. Rev eff 10/01/2015. Link here. Accessed 10/19/21.

17 First Coast Service Options. LCD L34175 on Indocyanine-Green Angiography. Rev eff 01/01/17. Link here. Accessed 10/19/21.

18 Palmetto GBA. LCD L34426 on Ophthalmic Angiography (Fluorescein and Indocyanine Green. Rev eff 7/05/18. Link here. Accessed 10/19/21.

CGS' Local Coverage article[16] notes:

> *CPT codes 92235 and 92240 are all-inclusive. They each include any setup, insertion of intravenous line, injection, cost of dye and the development of the images.*

Additionally, there are two National Coverage Determination policies (NCD §80.3 and NCD §80.3.1)[19,20] that pertain to ICG angiography. They were revised and a Final Decision rendered April 3, 2013.[21] This decision removed the requirement that an FA must be performed before ICG was allowed for payment.[22] As revised, an OCT can be used to determine the need for ICG instead of FA in some cases.

Screening

Some ophthalmologists and optometrists use standing orders for non-mydriatic fundus photography for all patients prior to an eye exam, so the doctor can screen for posterior segment disease as well as educate patients about the back of the eye. Other times, SCODI-P of the retina is used as part of a package of items related to cosmetic refractive services. As a general rule most payers, including Medicare, do not cover screening services or preventive medicine.[23] Patients must be given the opportunity to choose between an exam with or without these imaging services. Practices should use a financial waiver to document the 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 imaging is optional
- The beneficiary has no symptom or documented eye or systemic condition that would support imaging
- Recommended *prior to* a physician order for an individual patient's unique illness, injury, or medical condition
- Done for all patients as a matter of course, unless they decline

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19 CMS. National Coverage Determination 80.3. Indocyanine Green Angiography. Effective date 04/03/2013. Link here. Accessed 10/19/21.

20 CMS. National Coverage Indication 80.3.1. Verteporfin. Effective date 04/01/2004. Link here. Accessed 10/19/21.

21 CMS. NCA Final Decision Memorandum for Ocular Photodynamic Therapy (OPT) with Verteporfin for Macular Degeneration (CAG-00066R4). 04/03/2013. Link here. Accessed 10/19/21.

22 Some Recovery Audit Contractors had requested recoupment from providers; this was based on the older, published document not updated for newer technologies such as OCT.

23 42 CFR 410.32 (a). Ordering diagnostic tests. Link here. Accessed 10/19/21.

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

Standing Orders

Standing orders for tests may improve office efficiency, but they often create problems with reimbursement. The Office of Inspector General and the MACs have published several reports identifying standing orders as troublesome and problematic because they are routine screenings and non-covered services.[24,25,26] Some of the fines can be quite severe.[27] The Centers for Medicare & Medicaid Services (CMS) states "*the physician must clearly document, in the medical record, his or her intent that the test be performed.*"[28,29] To avoid this difficulty with reimbursement, physicians should examine the patient first and then determine which tests, if any, are necessary *before* ordering them. Alternately, and less commonly, a physician may formulate an order for imaging prior to any examination based on information about an individual patient's unique illness, injury, or medical condition provided by another physician, health care professional, or the patient themselves.

SUPERVISION

Since 2001, Medicare identifies its supervision rules for most ophthalmic diagnostic tests. FP and SCODI (including OCT-A, since no intravenous injection of dye is used) require *general* supervision. This means the procedure is furnished in the office under the physician's overall direction and control, but the physician's presence is not required during performance of the test.[30] Under general supervision rules, the training of the non-physician personnel who actually perform the diagnostic test and the maintenance of the

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24 United States General Accounting Office. Beneficiary Use of Clinical Preventive Services. GAO-02-422. April 2002. Link here. Accessed 10/29/21.

25 Office of Inspector General. Report: St. Francis Hospital, Tulsa, OK. Estimated Medicare Overpayment. February 12, 2002. Link here. Accessed 10/19/21.

26 Department of Justice. Archived Press Release. GAMBRO Healthcare Inc. agrees to pay $53 million of overcharging Medicare, Medicaid, & Tricare. July 13, 2000. Link here. Accessed 10/21/21.

27 Department of Justice. Press Release. Millennium Health Agrees to Pay $256 Million to Resolve Allegations of Unnecessary Drug and Genetic Testing and Illegal Remuneration to Physicians. Link here. Accessed 10/19/21.

28 CMS. Medicare Benefit Policy Manual, Chapter 15, §80.6.1. Requirements for Orders for Diagnostic Tests- Definitions. Link here. Accessed 10/19/21.

29 Palmetto GBA. Jurisdiction 11 Part B. Orders for Diagnostic Tests. Link here. Accessed 10/19/21.

30 Some states may have different requirements.

necessary equipment and supplies are the continuing responsibility of the physician.[31] In the Medicare Physician Fee Schedule, a supervision indicator of "1" denotes general supervision.

FA and ICG 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 procedure. It does not mean that the physician must be present in the room when the procedure is performed. In the Medicare Physician Fee Schedule, a supervision indicator of "2" denotes direct supervision.

DOCUMENTATION

The descriptions in CPT for tests discussed in this monograph include the phrase "*with interpretation and report*".[32] 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.[33] CMS makes a distinction between a "review" of a test and an "interpretation and report".

> "*Carriers generally distinguish between an "interpretation and report" … 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*

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[31] 42 CFR 410.32(b)(3)(i). Definition of general supervision. Link here. Accessed 10/29/21.

[32] Current Procedural Terminology (CPT) 2019 edition.

[33] Medicare Claims Process Manual (MCPM), Chapter 13, §100. Interpretation of Diagnostic Tests. Link here. Accessed 10/19/21.

> *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,[34] 42 CFR 415.120 (a) states:

> "***(a) Services to beneficiaries.*** *The carrier pays for … 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 … procedures. The carrier pays for interpretations only if there is a written report prepared for inclusion in the patient's medical record maintained by the hospital.*"

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

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

In ophthalmology and optometry, tests such as FP and SCODI-P 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 FP, the "interpretation and report" might read as follows.

- January 5, 2017
- Technician: Mary Smith, COT

[34] 42 CFR 415.120(a). Conditions for payment: Radiology services, to beneficiaries. Link here. . Accessed 10/19/21.

- 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.*

For SCODI-P of the optic nerve on the same patient at a different visit, the "interpretation and report" might read as follows.

- January 5, 2017
- Technician: Alex Smith, COA
- Test reliable, good image capture
- Good patient cooperation
- RNFL thinning, OU
- POAG, shows RNFL worsening since last test
- Change to another anti-glaucoma medication, consider other treatments if no improvement at next visit
- *Signed: I. C. Better, M.D.*

Where to write?

An interpretation can be written on its own separate page in the medical record or in the blank space on the printout of the test result. Within an electronic medical record, we often find a designated spot to record the physician's interpretation of a test as a report. If the interpretation is written as part of the office visit note, it might appear to be an element of the evaluation and management service. Better to keep it separate, or differentiate it from the rest of the eye exam by surrounding the notations with a box and a title like "Fundus photo report" or "OCT 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. Additionally, since FP, SCODI-A and SCODI-P require only general

supervision,[35] 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. Even when direct supervision pertains, the interpretation should be prompt.

It is important to note that CMS understands that delays are a fact of life and, in 2009, proposed regulations to require claims for reimbursement to identify on two separate lines the technical and professional components of a diagnostic test when performed on different dates of service. Transmittals 1823 and 1873 were subsequently withdrawn, yet there is still concern about this topic. As a practical alternative, bill the entire test upon completion after the interpretation is documented in the medical record since it is not clear what diagnosis would be used for the technical component alone.

Payment Considerations

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

BILLING ISSUES

Procedure Codes

The following CPT codes[36] might be used to report testing using the CIRRUS HD-OCT and CIRRUS photo.

92132 ….. Scanning computerized ophthalmic diagnostic imaging, anterior segment, with interpretation and report, unilateral or bilateral

92133 ….. Scanning computerized ophthalmic diagnostic imaging, posterior segment, with interpretation and report, unilateral or bilateral; optic nerve

[35] 42 CFR 410.32(b)(3)(i). Definition of general supervision. Link here. Accessed 10/19/21.
[36] Current Procedural Terminology (CPT) 2019 edition.

92134 ….. Scanning computerized ophthalmic diagnostic imaging, posterior segment, with interpretation and report, unilateral or bilateral; retina

92235 ….. Fluorescein angiography (includes multiframe imaging) with interpretation and report, unilateral or bilateral

92240 ….. Indocyanine-green angiography (includes multiframe imaging) with interpretation and report, unilateral or bilateral

92242 ..... Fluorescein angiography and indocyanine-green angiography (includes multiframe imaging) performed at the same patient encounter with interpretation and report, unilateral or bilateral (*New code in 2017*)

92250 ….. Fundus photography with interpretation and report

Modifiers

The following modifiers may be applicable on claims with these codes.

AQ …… Services provided in a Health Professional Shortage Area (HPSA, *Medicare modifier only*)

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

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

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

TC …… Technical component of a diagnostic test

26 ……. Professional component of a diagnostic test

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

Sample Claims

Example 1 Age-related macular degeneration (AMD)

During dilated fundus exam of the posterior pole of a new patient with binocular indirect ophthalmoscopy, several small drusen were noted OU. You order fundus photography OU to establish the extent of the AMD and to permit re-evaluation at a later date. Your impression states intermediate, nonexudative AMD OU. In addition to the exam (shown as 9xxxx), the claim will read as follows.

17 REFERRING/ORDERING PROVIDER	17a.		
DK J Emdy MD	17b.	NPI	1234567890
19 ADDITIONAL CLAIM INFORMATION			
21 DIAGNOSIS OR NATURE OF ILLNESS OR INJURY ICD Ind. 0			
A. H35.3132 B. C. D.			

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

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

Example 2 Diabetes with retinopathy

Your 74 y/o Medicare patient with Type II diabetes on oral hypoglycemics presents for an examination after a 5-year lapse. You note mild non-proliferative diabetic retinopathy in both eyes; at this time there is no diabetic macular edema in either eye. Importantly, prior exams were negative for diabetic changes. For a more detailed evaluation and to permit re-evaluation at a later date, you order and perform fundus photos. In addition to the exam (shown as 9xxxx), the claim will read as follows.

17 REFERRING/ORDERING PROVIDER	17a.		
DK J Emdy MD	17b.	NPI	1234567890
19 ADDITIONAL CLAIM INFORMATION			
21 DIAGNOSIS OR NATURE OF ILLNESS OR INJURY ICD Ind. 0			
A. E11.3293 B. Z79.84 C. D.			

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

Note: Some payers may require the Z code for oral hypoglycemics (Z79.84), while others do not.

Example 3 Monocular imaging

You are a retina specialist consulted by another eyecare provider concerning a 78 y/o woman with blurred and distorted vision in her only useful eye (OS); her right eye has been HM (hand motion) by history for many years due to a corneal scar. Your dilated fundus

exam identifies a macular pucker OS; no image is obtainable or useful for the OD. You order SCODI-P of the retina OS and document your findings in your report. In addition to the exam (shown as 9xxxx), the claim will read as below.

17 REFERRING/ORDERING PROVIDER	17a.		
DK J Emdy MD	17b.	NPI	1234567890
19 ADDITIONAL CLAIM INFORMATION Only left eye photographed			
21 DIAGNOSIS OR NATURE OF ILLNESS OR INJURY ICD Ind. 0 A. H35.372 B. C. D.			

24. A. DATES OF SERVICE From MM DD YY	To MM DD YY	B. POS	C. EMG	D. PROCEDURES, SVCS CPT/HCPCS	MODIFIER	E. DX POINTER	F. $ CHARGES	G. UNITS	H. EPSDT	I. ID QUAL.	J. RENDERING PROVIDER I.D.
mm dd yyyy		11		9xxxx		A	xxx xx	1		NPI	1234567890
mm dd yyyy		11		92134		A	xxx xx	1		NPI	1234567890

Note: In CPT, 92134 is a defined as "unilateral or bilateral". Medicare and most payers generally do not require modifiers 52, RT or LT and payment is not reduced, although not all payers agree. Check your payer policies.

Example 4 Fundus Photography and SCODI-P for diabetic retinopathy

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

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

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

Note: Type I diabetics (E10.- codes) are assumed to be on insulin by definition, the Z79.4 code for insulin is not used.

Both SCODI-P and FP were performed, but they are bundled under NCCI edits (which this payer follows). Since the results of the FP are more significant than OCT, bill only FP.

Example 5 Fluorescein angiography for diabetic retinopathy

You are a retina specialist consulted by another eyecare provider concerning a patient similar to that in Example 4 above, but in this case you order FP and FA of the retina of both eyes and document your findings in your report. In addition to the exam (shown as 9xxxx), the claim will read as below.

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

24. A. DATES OF SERVICE From MM DD YY	To MM DD YY	B. POS	C. EMG	D. PROCEDURES, SVCS CPT/HCPCS	MODIFIER	E. DX POINTER	F. $ CHARGES	G. UNITS	H. EPSDT	I. ID QUAL.	J. RENDERING PROVIDER I.D.
mm dd yyyy		11		9xxxx		A	xxx xx	1		NPI	1234567890
mm dd yyyy		11		92250		A	xxx xx	1		NPI	1234567890
mm dd yyyy		11		92235		A	xxx xx	1		NPI	1234567890

Note: Type I diabetics (E10.- codes) are assumed to be on insulin by definition, the Z79.4 code for insulin is not used.

FA has been a bilateral procedure since January 2017; for dates of service before January 1, 2017, it was a unilateral code. FP is not bundled with FA.

Example 6 Concurrent fluorescein angiography and indocyanine angiography

You are a retina specialist consulted by another eyecare provider concerning a 68 y/o woman with blurred vision in the right eye. Your dilated fundus exam identifies active exudative age-related macular degeneration with CNV in the right eye. The left eye has only early stage, nonexudative age-related macular degeneration. You order fundus photography, fluorescein angiography, and indocyanine angiography of the retina of both eyes and document your findings in your report. In addition to the exam (shown as 9xxxx), the claim will read as below.

17 REFERRING/ORDERING PROVIDER	17a.		
DK J Emdy MD	17b.	NPI	1234567890
19 ADDITIONAL CLAIM INFORMATION			
21 DIAGNOSIS OR NATURE OF ILLNESS OR INJURY ICD Ind. 0			
A. H35.3211 B. H35.3112 C. D.			

24. A. DATES OF SERVICE From MM DD YY	To MM DD YY	B. POS	C. EMG	D. PROCEDURES, SVCS CPT/HCPCS	MODIFIER	E. DX POINTER	F. $ CHARGES	G. UNITS	H. EPSDT	I. ID QUAL.	J. RENDERING PROVIDER I.D.
mm dd yyyy		11		9xxxx		A,B	xxx xx	1		NPI	1234567890
mm dd yyyy		11		92242		A	xxx xx	1		NPI	1234567890

Since January 2017, both FA and ICG angiography are "unilateral and bilateral" procedures, as is the combination (FA + ICG) code 92242. CPT 92250 would not be billed; FP is bundled with ICG angiography.

Example 7 Open-angle Glaucoma

Your established glaucoma patient returns for routine follow-up. His IOPs are stable but the optic nerve appears to have changes. You order SCODI-P of the optic nerve, and it is performed and properly interpreted today. You diagnose moderate stage, open-angle glaucoma in both eyes. In addition to the exam (shown as 9xxxx), the claim will read as below.

17 REFERRING/ORDERING PROVIDER	17a.		
DK J Emdy MD	17b.	NPI	1234567890
19 ADDITIONAL CLAIM INFORMATION			
21 DIAGNOSIS OR NATURE OF ILLNESS OR INJURY ICD Ind. 0			
A. H40.1132 B. C. D.			

24. A. DATES OF SERVICE From MM DD YY	To MM DD YY	B. POS	C. EMG	D. PROCEDURES, SVCS CPT/HCPCS	MODIFIER	E. DX POINTER	F. $ CHARGES	G. UNITS	H. EPSDT	I. ID QUAL.	J. RENDERING PROVIDER I.D.
mm dd yyyy		11		9xxxx		A	xxx xx	1		NPI	1234567890
mm dd yyyy		11		92133		A	xxx xx	1		NPI	1234567890

Example 8 Narrow-angle glaucoma with AMD

You see a new patient referred to you because the prior provider could not adequately examine the patient, but suspected narrow angles. He also noted that the acuity is not as expected based on his limited examination. During your slit-lamp exam today, you note possibly narrow angles but are unable to perform gonioscopy due to poor patient cooperation. You order SCODI-A, which is performed today and properly interpreted.

The findings show moderate narrowing of the angles but they are safe to dilate. After dilation, you note no glaucomatous damage to the nerves and intermediate, dry age-related macular degeneration OU. You then order SCODI-P of the retina while the patient is cooperative; it is properly interpreted today. In addition to the exam (shown as 9xxxx), the claim will read as below.

17 REFERRING/ORDERING PROVIDER	17a.		
DK J Emdy MD	17b.	NPI	1234567890
19 ADDITIONAL CLAIM INFORMATION			
21 DIAGNOSIS OR NATURE OF ILLNESS OR INJURY ICD Ind. 0			
A. H40.033 B. H35.3132 C. D.			

24. A. DATES OF SERVICE From MM DD YY	To MM DD YY	B. POS	C. EMG	D. PROCEDURES, SVCS CPT/HCPCS	MODIFIER	E. DX POINTER	F. $ CHARGES	G. UNITS	H. EPSDT	I. ID QUAL.	J. RENDERING PROVIDER I.D.
mm dd yyyy		11		9xxxx		A,B	xxx xx	1		NPI	1234567890
mm dd yyyy		11		92132		A	xxx xx	1		NPI	1234567890
mm dd yyyy		11		92134		B	xxx xx	1		NPI	1234567890

Note: The ICD-10 code for anatomical narrow angle does not require a 7th character.

Example 9 OCT-Angiography and SCODI-P of the retina for diabetic retinopathy

You are a retina specialist consulted by another eyecare provider concerning a 28 y/o man with blurred vision in both eyes; he is a Type I diabetic and takes insulin. He has had difficulty in the past with access to his veins. Your dilated fundus exam identifies proliferative diabetic retinopathy in both eyes. You order SCODI-P of the retina and OCT-angiography (OCT-A) of the retina of both eyes and document your findings in your report. SCODI-P shows no DME. In addition to the exam (shown as 9xxxx), the claim will read as below.

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

24. A. DATES OF SERVICE From MM DD YY	To MM DD YY	B. POS	C. EMG	D. PROCEDURES, SVCS CPT/HCPCS	MODIFIER	E. DX POINTER	F. $ CHARGES	G. UNITS	H. EPSDT	I. ID QUAL.	J. RENDERING PROVIDER I.D.
mm dd yyyy		11		9xxxx		A	xxx xx	1		NPI	1234567890
mm dd yyyy		11		92134		A	xxx xx	1		NPI	1234567890

Note: Type I diabetics (E10.- codes) are assumed to be on insulin by definition, the Z79.4 code for insulin is not used.

Since both SCODI-P and OCT-A are coded as 92134, it is reported only once. The patient cannot be billed for the "other" OCT.

Example 10 Color fundus photography with fundus autofluorescence

You are a specialist consulted by another provider concerning a 58 y/o woman with mild blurred vision. Your dilated fundus exam identifies subtle drusen in the central retina of both eyes. You order both color and autofluorescence photography of the retina of both eyes and properly document your findings today. You diagnose early, dry macular degeneration in both eyes. In addition to the exam (shown as 9xxxx), the claim will read as below.

17 REFERRING/ORDERING PROVIDER	17a.		
DK J Emdy MD	17b.	NPI	1234567890
19 ADDITIONAL CLAIM INFORMATION			
21 DIAGNOSIS OR NATURE OF ILLNESS OR INJURY ICD Ind. 0			
A. H35.3131 B. C. D.			

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

Since both of these imaging techniques (FP, AF) are coded with the fundus photography code (92250), it is billable only once per date of service.

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),[37] 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 imaging, ultrasounds and visual fields.[38] Tests not on the list are not subject to the MPPR reduction. All of the codes discussed here are subject to MPPR.

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[37] CMS. Medicare Learning Network, MLN Matters MM7848, Eff. January 1, 2013. Link here. Accessed 10/19/21.

[38] CMS Transmittal 1149, dated November 6, 2012. Attachment 2 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 10/19/21.

Example MPPR

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

Test	Professional	Technical	Total
92083 Visual Field	$28.47	$36.76 (No reduction)	$65.23
92250 Fundus Photo	$22.34	$29.19 less $5.84 (20%) = $23.35	$45.90

2019 National Medicare Physician Fee Schedule, PAR allowable

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

Prohibited Code Combinations

In 1996, CMS developed the National Correct Coding Initiative (NCCI)[39] to control improper coding leading to inappropriate payments in Part B claims.[40] 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.

In the current NCCI edits, CPT 92250 is mutually exclusive with 92133 and 92134. It is also bundled with 92240 and the new CPT code for simultaneous ICG and fluorescein angiography (92242). This 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 equal clinical utility.

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

[39] CMS. National Correct Coding Initiative Edits. Link here. Accessed 10/19/21.

[40] Medicare Claims Processing Manual, Chapter 23, §20.9. Correct Coding Initiative. Link here. Accessed 10/19/21.

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 L33567 for extended ophthalmoscopy,[41] "*When other ophthalmologic tests (e.g., fundus photography, fluorescein angiography, ultrasound, optical coherence tomography, etc.) have been performed, extended ophthalmoscopy will be denied as not medically unnecessary unless there was a reasonable medical expectation that the multiple imaging services might provide additive (non-duplicative) information.*" Not all carriers have this policy.

Other Coding Issues

Selecting the Proper Code

Since some models of CIRRUS generate both a fundus image and a SCODI-P image simultaneously, the selection of the proper code might present some challenges. This issue was addressed in CPT Assistant, a companion publication to CPT itself. In the November, 2014, edition is an article, "Coding Clarification: Special Ophthalmological Services (92133, 92134)", which states:[42]

> "***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 code 92133 and 92134] for this method of examination of the fundus?"*
>
> ***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."*

Since 92250 is assigned more RVUs than 92133 or 92134 within the Medicare Physician Fee Schedule, billers are tempted to choose the CPT code that pays the most because the NCCI edits bundle these codes. The following examples illustrate appropriate code selection based on the purpose of the tests.

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[41] National Governmental Services, Inc.. LCD L33567. Ophthalmology: Posterior Segment Imaging (Extended Ophthalmoscopy and Fundus Photography). Revision effective date 01/01/2019. Link here. Accessed 10/19/21.

[42] American Medical Association. *CPT Assistant*. November 2014.

- You order and perform concurrent FP and SCODI-P for progressive diabetic macular edema (DME). The swelling in the macula is quantified and interpreted. Bill only 92134. The assessment of the extent of the progression of DME depends on quantification of the swelling, which is better suited to SCODI-P than FP.
- You order and perform concurrent FP and SCODI-P for progressive vision loss. Prior binocular indirect ophthalmoscopy is unremarkable and inconclusive. The images reveal a new epiretinal membrane (ERM). Bill only 92134. The differential diagnosis of ERM, absent any visible macular distortion with BIO, depends on the cross-sectional capabilities of SCODI-P rather than FP.
- You order and perform concurrent stereo FP and SCODI-P of the optic nerve for acute papilledema. Bill only 92250. The differential diagnosis for papilledema depends on identifying qualitative vascular changes with flame-shaped hemorrhages, which are better suited to FP than SCODI-P.
- You order and perform concurrent FP and SCODI-P for new-onset central retinal vein occlusion (CRVO). Bill only 92250. The differential diagnosis for new-onset CRVO depends largely on identifying the qualitative vascular changes, intraretinal hemorrhages, and cotton wool spots.
- You order and perform concurrent FP and SCODI-P for re-evaluation of exudative age-related macular degeneration. The patient is scheduled for an intravitreal injection of an anti-VEGF agent today. Bill only 92134. The differential diagnosis for wet AMD depends on the cross-sectional capabilities of SCODI-P, not FP.
- You re-evaluate a patient with nonexudative age-related macular degeneration. The patient complains of fleeting spots in his central vision. You order and perform concurrent FP and SCODI-P; you compare the results of today's test with the prior test for the size and quantity of drusen. Bill only 92134. The assessment of the risk of progression in dry AMD depends on the specific pattern and volume analysis for the drusen, with is better suited to SCODI-P than FP.[43]
- You re-evaluate a patient with moderate open-angle glaucoma. Your binocular indirect ophthalmoscopy notes cup-to-disc ratio unchanged. You order and perform concurrent FP and SCODI-P; you compare the results of today's test with the prior test for the retinal nerve fiber layer and note disease progression. Bill only 92133. The assessment of the extent of the progression of OAG depends on quantification of the thickness of the RNFL, which is better suited to SCODI-P than FP.

[43] Lujan, BJ. Practical Applications of SD-OCT Imaging in Dry AMD. Retinal Physician. April 1, 2010 Link here. Accessed 10/19/21.

Autofluorescence

It has been suggested that AF is a separate and distinct service, but one that does not have a CPT code, so billers ought to use CPT code 92499, *unlisted ophthalmological service or procedure,* to report it on claims for reimbursement. According to the *CPT Assistant* December 2014 issue,[44] CPT code 92250, *Fundus photography with interpretation and report,* is appropriate to report AF as part of a series of fundus images or as a stand-alone service. This clarification in *CPT Assistant* removes any doubt about coding for AF because it is an incidental part of concurrent fundus photography and not an additional service.

Using CPT code 92499 to report AF has significant consequences. With rare exceptions, most payers, including Medicare, habitually deny claims for 92499, so the beneficiary is financially liable for payment to the ophthalmologist or optometrist. Since claims for fundus photography are reimbursed for a wide variety of pathology in the fundus, and AF is an incidental part of fundus photography, the beneficiary is only liable for the usual deductible and copayments for covered indications. Stipulating that AF is not reimbursed is an error that resulted from a misunderstanding about the proper coding for AF. Any payment by the beneficiary for a noncovered service represents an overpayment to the practice if the fundus photograph would have been reimbursed by the payer.

Financial Waivers

An Advance Beneficiary Notice of Non- Coverage (ABN, CMS-R-131)[45] 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.

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[44] American Medical Association. *CPT Assistant*. December 2014.

[45] Centers for Medicare & Medicaid (CMS). FFS ABN. Downloads. Link here. Accessed 10/19/21.

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.*
- 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,[46] 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,[47] 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.

Anti-Markup Rule (Purchased Diagnostic Tests)

If you order and bill for a test and either the technical component or the professional interpretation is performed by another physician, you may be prohibited from marking up the test (*i.e.*, receiving payment from Medicare in excess of the amount you paid to the entity who performed the technical component or professional interpretation) unless the

[46] CMS. *MLN Matters* (MM6136). Revised Form CMS-R-131 Advance Beneficiary Notice of Noncoverage. Link here. Accessed 10/19/21.

[47] CMS. Transmittal R1921CP. Billing for Services Related to Voluntary Uses of Advanced Beneficiary Notices of Noncoverage (ABNs). February 19, 2010. Link here. Accessed 10/19/21.

physician who performs the test "shares a practice" with you.[48] However, if the performing physician meets the Medicare criteria for "sharing a practice" with you, the prohibition would not apply for that diagnostic test. The prohibition against marking up the test is referred to as the Medicare Anti-Markup Rule and was formerly known as the Purchased Diagnostic Test Rule.

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

- The performing supplier's net charge to the billing physician or other supplier;
- The billing physician or other supplier's actual charge; or
- 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.[49]

UTILIZATION

Medicare Part B utilization rates are published and are noted below (Table 1). There are no published limitations for repeated testing. In general, 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.

Table 1 **Medicare Utilization Rates**

Code	Description	Ophthalmology (18)	Optometry (41)
92132	SCODI-A	0.2%	0.2%
92133	SCODI-P Optic Nerve	9.6%	7.7
92134	SCODI-P Retina	31%	7.6%

[48] CMS. Medicare Learning Network, MLN Matters MM6371, July 1, 2009. Link here. Accessed 10/19/21.

[49] Medicare Claims Processing Manual, Chapter 1, Section 30.2.9. Link here. Accessed 10/19/21.

Table 1 **Medicare Utilization Rates**

Code	Description	Ophthalmology (18)	Optometry (41)
92235	FA	2.2%	nil
92240	ICG	0.3%	nil
92242	FA & ICG (combo)	0.2%	nil
92250	FP	9.5%	14.8%

Medicare claims adjudicated in 2018.

PAYMENT LEVELS

Medicare defines all of these codes as bilateral so reimbursement is for both eyes. 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 2 shows the participating (PAR), non-participating (Non-PAR), and non-participating limiting charge[50] values for Medicare in 2021.

Table 2 **2021 Medicare Physician Fee Schedule** [51]

Code	Description		PAR Allowable $	Non-PAR Allowable $	Limiting Charge for Non-PAR $
92132	SCODI-A	Global	32.10	29.57	34.01
		TC	15.70	14.17	16.30
		PC	16.40	15.40	17.71
92133	SCODI-P Optic Nerve	Global	37.68	34.75	39.97
		TC	15.70	14.17	16.30
		PC	21.98	20.58	23.67
92134	SCODI-P Retina	Global	41.52	38.28	44.02
		TC	16.05	14.48	16.65
		PC	25.47	23.80	27.37

[50] Participating physicians (PAR) agree to accept Medicare allowed amounts on all covered services as their maximum payment from all sources. This is known as "accepting assignment". Non-participating physicians (Non-PAR) may accept assignment on a case-by-case basis, but are also limited in the amount they may charge the patient if they do not accept assignment. For additional discussion, see information published by CMS for patients here. Accessed 10/19/2021.

[51] Rounded to nearest $0.01

Table 2 **2021 Medicare Physician Fee Schedule** [51]

Code	Description		PAR Allowable $	Non-PAR Allowable $	Limiting Charge for Non-PAR $
92235	FA	Global	199.33	108.30	124.54
		TC	76.76	68.64	78.94
		PC	42.57	39.66	45.60
92240	ICG	Global	206.92	187.18	215.26
		TC	160.16	143.03	164.49
		PC	46.76	44.15	50.77
92242	FA & ICG	Global	256.46	231.19	265.87
		TC	202.03	180.39	207.44
		PC	54.43	50.81	58.43
92250	FP	Global	39.78	36.62	42.11
		TC	18.49	16.66	19.16
		PC	21.28	19.96	22.95

Health Professional Shortage Area (HPSA)

Medicare pays a quarterly 10% premium to physicians who provide services in a Health Professional Shortage Area (HPSA). 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 need the modifier AQ.

This premium is pertinent only to professional services, and does not apply to the technical component (TC) of diagnostic tests. It is not necessary to separate the professional and technical components in order to receive bonuses; the MAC 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.

CONCLUSION

A well-known proverb says a picture is worth a thousand words. Unlike ophthalmoscopy where the examiner must be content with a brief look, anterior segment, optic nerve, and

fundus imaging provide crisp, detailed, close-up pictures of the eye for intensive study, as well as for subsequent use as a benchmark for monitoring subtle changes that allow for better disease management.

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

SCODI-P can help identify and quantify minute details that are otherwise invisible to ophthalmologists and optometrists even with high magnification. Objective quantified data is particularly helpful for gauging disease progression and planning treatment.

FA and ICG angiography are helpful to image the vascular flow of the retina and choroid as indicated.

Fundus photographs permit a longer look at the back of the eye than is possible with ophthalmoscopy, and aid in evaluating and monitoring disease.

SCODI-A is useful following LASIK for flap assessment, measurement of corneal thickness, evaluation of anterior segment ocular structures, and measurement of anterior chamber angles.

Some applications of ophthalmic imaging, 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 imaging tests discussed in this monograph, 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 these tests with the expectation of reimbursement.
- 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 changes over time, and the assessment. Sign and date the note.
- 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).
- Repeated testing is merited due to disease progression, otherwise it may be dubious.
- Monitor NCCI edits.
- Check Local Coverage Determinations (LCDs) for specific guidance in your area. Covered indications and claims submission instructions vary over time and between Medicare Administrative Contractors. Investigate the policies of other third party payers; they vary.
- Place a note in the medical record that identifies where digital images are electronically stored.
- Don't use fundus photographs as a surrogate for a dilated fundus evaluation during a comprehensive eye exam.
- When autofluorescence and other wavelength fundus imaging is performed on the same day as other fundus photography, only one instance of CPT code 92250 applies and no additional charge pertains to either payer or patient.
- When both FP and SCODI-P can be generated simultaneously, the purpose of the test - not the level of reimbursement - governs code selection.
- OCT-Angiography (OCT-A) uses no dye and CPT code 92134 (SCODI-P of the retina) properly describes the service. Any other code is inappropriate.
- When SCODI-P and OCT-A are performed on the same day, only a single instance of CPT 92134 is reportable and no additional charge pertains to either payer or patient.
- 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 instructions associated with Medicare's anti-markup rules.

APPENDIX

The following Appendices are listings of commonly-accepted diagnosis codes for the diagnostic tests discussed in this monograph. Listed codes are intended to be representative of covered diagnoses, but differences in payment policies exist for many payers. The lists are neither exhaustive nor universally accepted.

Some ICD-10 codes changed October 1, 2016, usually adding increased specificity. Check that coding is specific to the dates of service as ICD-10 codes may change on Oct 1 of each year.

An ending "dash" following a code means that additional characters are required.

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

ICD-10	Description
E10.3-, E11.3-	Background diabetic retinopathy
H35.01-	Background retinopathy
Q14.8	Congenital macular changes
H35.35-, H59.03-	Cystoid macular degeneration (CME) after Cataract Surgery
E10.3-, E11.3-	Diabetes with ophthalmic manifestations
H47.0-	Disorders of optic nerve
H35.32-	Exudative macular degeneration
H35.02-	Exudative retinopathy
H44.7-	Foreign body, intraocular
H44.6-	Foreign body, magnetic, intraocular
Q14.8	Fundus coloboma
H40.-, H42	Glaucoma
H35.03-	Hypertensive retinopathy
H35.41-	Lattice degeneration
H35.3-	Macular degeneration
C69.3-	Malignant neoplasm of choroid
C69.2-	Malignant neoplasm of retina
H35.31-	Nonexudative macular degeneration
H47.2-	Optic atrophy
H46.-	Optic neuritis and neuropathies
H47.1-	Papilledema
H34.2-	Partial arterial occlusion
E10.3-, E11.3-	Proliferative diabetic retinopathy
H33.3-	Retinal defects w/o detachment
H35.89	Retinal exudates and deposits
H35.82	Retinal ischemia
H35.09	Retinal microvascular abnormalities
H34.8-	Retinal vascular occlusion (branch and central)
H35.06-	Retinal vasculitis
H33.1-	Retinoschisis
H35.54	RPE dystrophies

Appendix 2 **Common Glaucoma and Optic Nerve Diagnosis Codes for SCODI-P**

ICD-10	Description
Q15.0	Buphthalmos
H40.6-	Corticosteroid-induced glaucoma
H47.4-	Disorders of optic chiasm
H47.3-	Disorders of optic disc
H47.0-	Disorders of optic nerve
H47.5-	Disorders of other visual pathways
Q15.0	Glaucoma associated with congenital anomalies, dystrophies, and systemic syndromes
H40.14-	Glaucoma associated with disorders of the lens and lens capsule
H40.3-, H40.4-, H40.5-	Glaucoma associated with trauma, inflammation, and other eye and ocular disorders
H40.01, H40.02	Glaucoma suspect (Open Angle with borderline findings, low risk and high risk)
H40.40x-	Glaucomatocyclitic crises
H21.52-	Goniosynechiae
H47.2-	Optic atrophy
H40.8-	Other glaucoma
H42	Glaucoma in diseases classified elsewhere *
H47.1-	Papilledema
H21.23-	Pigmentary iris degeneration
H40.2-	Primary angle closure glaucoma
H40.11x-	Primary open angle glaucoma
H21.4-	Pupillary membranes
H21.55-	Recession of chamber angle
H47.9	Unspecified disorder of optic nerve and visual pathways
H40.9	Unspecified glaucoma
H53.15	Visual distortions
H53.4-	Visual field defects

* This “3-character only code” has an instruction to “Code First” the underlying condition.

Appendix 3 **Common Diagnosis Codes for SCODI-P – Retina**

ICD-10	Description
D31.3-	Benign neoplasm of choroid
H44.-	Disorder of globe
D18.09	Hemangioma of retina
H35.5-	Hereditary retinal dystrophies
H35.3-	Macular degeneration *
C69.-	Malignant neoplasm of eye
H35.2-	Other nondiabetic proliferative retinopathy
H35.4-	Peripheral retinal degenerations
H33.3-	Retinal defect
H33.0-, H33.2-	Retinal detachment
H33.4-	Retinal detachment
H33.1-	Retinal detachment or Retinoschisis
H35.7-	Retinal separation
H34.-	Retinal vascular occlusion
E11.31- to E11.35-, H35.0- to H35.2-	Retinopathy **
H35.17-	Retrolental fibroplasias
H30.-, H31.-	Chorioretinal disease
H31.32-	Choroidal rupture
H31.4-	Choroidal detachment
H53.4-	VF defect
H05.-	Orbital disease
H47.1-	Papilledema
H47.2-	Optic atrophy
H47.3-	Optic disc disease
H47.0-	Optic neuropathy
H47.9	Other disorders of optic nerve
H43.-	Vitreous disorders
Q14.-	Congenital abnormalities
S06.-	Intracranial injury
S05.1-	Contusion of eyeball
Z79.899	Long term (current) use of high risk medication ***
Z09	Following completed treatment with high risk medication

* Laterality and staging for age-related macular degeneration are in effect for dates of service after 10/01/16, so some of these codes may need to be up to seven characters in length.

** Laterality and other changes to diabetic and other vascular eye disease are in effect for dates of service after 10/01/16.

*** Applicable for SD-OCT only as a secondary diagnosis code. A systemic disease is often the primary diagnosis, and if so, must be listed first on the claim.

Appendix 4 **Common Diagnosis Codes for SCODI-A**

ICD-10	Description
C69.9-	Malignant neoplasm of eyeball
C69.1-	Malignant neoplasm of cornea
D31.9-	Benign neoplasm of eyeball
D31.1-	Benign neoplasm of cornea
H21.1-	Degenerations of iris and ciliary body
H21.3-	Cysts of iris, ciliary body and anterior chamber
H21.4- to H21.5-	Adhesions and disruptions of iris and ciliary body
H21.8-	Other disorders of iris and ciliary body
H40.03-	Anatomical narrow angle
H40.2-	Primary angle-closure glaucoma
H17.-	Corneal scars and opacities
H18.2-	Corneal edema
H18.7-	Other corneal deformities
H27.0-	Disorders of lens
T85.3-	Complication of corneal graft
T85.2-	Complication of IOL
T85.3-	Complication of ocular prosthesis

Appendix 5 **Common Diagnosis Codes for Fluorescein Angiography**

ICD-10	Description
E10.3-, E11.3-	Background diabetic retinopathy
H35.01-	Background retinopathy
H35.35-, H59.03-	Cystoid macular degeneration (CME) after Cataract Surgery
E10.3-, E11.3-	Diabetes with ophthalmic manifestations
H47.0-	Disorders of optic nerve
H35.32-	Exudative macular degeneration
H35.02-	Exudative retinopathy
H35.03-	Hypertensive retinopathy
H35.3-	Macular degeneration
H35.31-	Nonexudative macular degeneration
H34.2-	Partial arterial occlusion
E10.3-, E11.3-	Proliferative diabetic retinopathy
H35.82	Retinal ischemia
H35.09	Retinal microvascular abnormalities
H34.8-	Retinal vascular occlusion (branch and central)
H35.06-	Retinal vasculitis
H33.1-	Retinoschisis
H35.54	RPE dystrophies

Appendix 6 **Common Diagnosis Codes for ICG Angiography**

ICD-10	Description
H35.05-	Retinal Neovascularization NOS
H35.0-	Other intraretinal microvascular abnormalities
H35.71-	Central serous retinopathy
H35.72-	Serous detachment of retinal pigment epithelium
H35.73-	Hemorrhagic detachment of retinal pigment epithelium
H35.32	Exudative macular degeneration
H35.53	Other dystrophies of sensory retina
H35.6-	Retinal hemorrhage
H30.1-	Disseminated retinitis and retinochoroiditis
H31.30-	Choroidal hemorrhage unspecified
H31.31-	Expulsive choroidal hemorrhage
H31.32-	Choroidal rupture
H31.41-	Hemorrhagic choroidal detachment
H31.8, H31.9	Other disorders of choroid