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VERIFY THEN TRUST: USING AI IN RETINA CODING



This framework can help ensure accuracy and consistency when integrating AI into retina coding and billing workflows.

BY MATTHEW BAUGH, MHA, COT, OCS, OCSR

Al use is rapidly becoming common in retina practices, including to support documentation, coding, and claim review. While AI tools can offer meaningful efficiency gains, retina coding remains complex and dependent on precise clinical interpretation, payer policy, and documentation standards. When AI-generated output is used without verification, it can lead to inaccurate coding decisions. Thus, the safest approach is simple: Verify first, then trust.

Retina procedures are complex, frequently bundled, and closely scrutinized by payers. Errors in Current Procedural Terminology (CPT) selection, modifier use, or diagnosis linkage can trigger denials, repayment, or audit exposure.

In this article, I outline a framework for using AI in retina billing and coding that aims to mitigate errors, while still enjoying efficiency gains.

AI IN RETINA CODING: USEFUL, BUT IMPERFECT

AI tools can quickly generate coding suggestions, summarize documentation, and propose CPT and International Classification of Diseases, Tenth Revision (ICD-10) codes. However, these outputs may be incomplete, outdated, or incorrect, as retina procedures often involve multiple surgical steps, global period considerations, and diagnosis-specific coverage rules—details AI may miss.

Accurate retina coding requires a structured process: Review the documentation, confirm CPT descriptors, check

National Correct Coding Initiative (NCCI) edits, apply modifiers, and validate diagnosis linkage. AI can support this workflow, but it cannot replace it.

The quality of AI output depends on the quality of input. In coding and billing, vague or incomplete questions often produce incomplete or even misleading answers. This is especially important in retina, where coding decisions depend on payer rules, diagnosis specificity, and clinical context.

When more specific questions are posed to AI tools, such as ChatGPT (Open AI), Copilot (Microsoft), or Google's AI overview, they produce more useful answers. Consider the following versions of asking a question about billing for OCT imaging:

Basic question (limited value): How often can you bill for OCT imaging?

- Lacks test specificity, diagnosis, and payer context.
- May produce generic or outdated guidance.

Better question (more useful): How often can you bill for retina OCT for AMD?

- Adds subspecialty and diagnosis.
- Narrows the scope but still lacks payer specificity.

Best question (actionable): How often can you bill for retina OCT (CPT 92134) for a patient with Medicare Part B insurance with exudative AMD with choroidal neovascularization to monitor active intravitreal injection treatments under a specific Medicare Administrative Contractor (eg, Novitas) policy?

CASE EXAMPLE NO. 1: PPV WITH IOL EXCHANGE

Scenario: A patient undergoes pars plana vitrectomy (PPV) for a dislocated IOL, followed by IOL exchange and sutured IOL due to floppy iris syndrome.

AI Input	AI Suggestion	Four-Step Framework
What CPT codes are used for a vitrectomy with IOL exchange and sutured IOL, left eye?	- CPT 67036 - H43.392 - CPT 66985 - T85.22XA <i>Issue:</i> Incorrect CPT selection.	1. Confirm CPT descriptors: CPT 66986 is correct for IOL exchange and CPT 66682 for suture IOL 2. Review NCCI edits: all three codes are allowed together 3. Validate diagnosis linkage: unique to each procedure 4. Review payer policy: confirms coverage
Final Coding		
CPT	Description	ICD-10
66986	IOL exchange	*T85.22XA - Displacement of intraocular lens, initial encounter
67036	PPV	H43.392 - Other vitreous opacities, left eye, T85.22XA
66682	Suture IOL	H21.81 - Floppy iris syndrome
*T85.22XA cannot be listed as primary due to the Medicare National Coverage Determination (NCD) for vitrectomy.		

CASE EXAMPLE NO. 2: REPEAT IMAGING AND MEDICAL NECESSITY

Scenario: A patient with type 2 diabetes, mild nonproliferative diabetic retinopathy (NPDR), and diabetic macular edema (DME) undergoes OCT imaging at a follow-up visit 5 weeks after prior imaging.

AI Input	AI Suggestion	Four-Step Framework
Can you bill OCT again at a follow-up visit for DME in both eyes?	- CPT 92134 (posterior segment OCT) and E11.311 <i>Issue:</i> Overgeneralized guidance without timing, clinical context, staging, and treatment or documentation requirements. Also, unspecified DR with DME is not as specific as possible	1. Confirm CPT descriptors: CPT 92134 is appropriate for posterior segment OCT 2. Review NCCI edits: no bundling concerns with other services provided the same day 3. Validate diagnosis linkage: mild NPDR with DME supports OCT use but repeat testing must be clinically justified per payer guidelines, and ICD-10 must be highest level of specificity 4. Review payer policy: documentation must support medical necessity and confirm within frequency limitations <i>Additional step for this case:</i> Confirm the current treatment plan, as there are different answers for disease monitoring versus active treatment. For example, Novitas local coverage determination L35038 and local coverage article (LCA) A57600 state: "for retinal disease not undergoing active treatment, no more than one examination every 2 months is considered medically reasonable and necessary. For retinal conditions undergoing active treatment or suggestive of rapid deterioration (eg, wet AMD, choroidal neovascularization, macular edema, diabetic retinopathy, branch retinal vein occlusion/central retinal vein occlusion, cystoid macular edema), no more than one examination per month is considered medically reasonable and necessary." Monthly is defined as every 28 days by the LCA.
Final Coding		
CPT	Description	ICD-10
92134	Posterior segment OCT	E11.3213 - Type 2 diabetes mellitus with mild NPDR with macular edema, bilateral

CASE EXAMPLE NO. 3: INJECTION DURING THE GLOBAL PERIOD

Scenario: Intravitreal injection is performed postoperatively for an eye with proliferative DR (PDR) with DME.

AI Input	AI Suggestion	Four-Step Framework
Can you bill an anti-VEGF injection during the postoperative period in the left eye for PDR with DME in the right eye?	- 67028 (no modifiers) - E11.3511 <i>Issue:</i> Missing modifiers	1. Confirm CPT descriptors: CPT confirmed 2. Review NCCI edits: not applicable 3. Validate diagnosis linkage: diagnosis supports necessity 4. Review payer policy: a modifier is required (-79, indicating an unrelated procedure that was performed by the same physician or other qualified health care professional during the postoperative period) and anatomical modifier
Final Coding		
CPT	Description	ICD-10
67028 with (-79) -RT	Injection	E11.3511

- Includes CPT code, diagnosis specificity, staging, treatment, payer, and jurisdiction.
- Produces an answer that can be verified against policy.

THE ABCS OF AI IN RETINA CODING

A structured approach is needed to evaluate whether an AI output can be trusted. The ABCs—accuracy, bias, and context—explain why AI output must be verified.

Accuracy: AI may generate outdated or incorrect guidance, as coding rules and payer policies change frequently. Confirm AI-generated information using current, trusted resources.

Bias: AI models are trained on broad datasets and may not reflect retina-specific nuances. This can lead to incorrect assumptions about procedure combinations or modifier use.

Context: AI lacks full context. Retina coding depends on encounter-specific details, including prior procedures and documentation. Thus, AI may produce technically correct, but clinically and surgically irrelevant, answers.

FOUR-STEP FRAMEWORK TO VERIFY AI OUTPUT

A dedicated framework can provide a practical method to apply these principles and ensure accurate, compliant coding.

The process begins with reviewing the documentation itself. Accurate coding depends on what is documented

in the medical record, and each step of the framework builds upon confirming that the coding reflects the services performed.

Here are the four steps to the framework:

1. Review the full CPT descriptor to ensure the code accurately reflects the procedure performed.
2. Determine whether codes can be billed together and identify bundling restrictions.
3. Ensure each CPT code is linked to the most appropriate ICD-10 diagnosis.
4. Review payer policies and confirm guidance using current, trusted sources. Confirm coding aligns with payer-specific rules, including coverage and documentation requirements.

The three examples shared throughout this article demonstrate how this process can be used in common retina scenarios to identify and correct AI-driven coding errors.

AVOID COMMON AI PITFALLS

AI-generated coding suggestions can introduce errors that affect both reimbursement and compliance. The common pitfalls highlighted in this article demonstrate the importance of verifying all AI-generated coding before claim submission. ■

1. Baugh M. Verify then trust: the key to using AI safely in ophthalmic coding. EyeNet. American Academy of Ophthalmology. 2024. Accessed April 23, 2026. www.aao.org/eyenet/article/verify-then-trust-ai-ophthalmic-coding
2. American Academy of Ophthalmology. Coding resources. AAO Practice Management. Accessed April 23, 2026. www.aao.org/practice-management/coding
3. Centers for Medicare & Medicaid Services. National Correct Coding Initiative (NCCI) edits. CMS.gov. Accessed April 23, 2026. www.cms.gov/medicare/coding-billing/national-correct-coding-initiative-ncci-edits



FURTHER READING

10 Essential Steps for Accurate Retina Surgery Coding

By Joy Woodke, COE, OCS, OCSR,
and Matthew Baugh, MHA, COT, OCS, OCS



READ NOW

MATTHEW BAUGH, MHA, COT, OCS, OCSR

- Manager of Coding & Clinical Teams, American Academy of Ophthalmology, San Francisco
- mbaugh@aao.org
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