

01-92000-28

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Reviewed: 05/25/23

Revised: 10/01/23

Subject: Electroretinography

THIS MEDICAL COVERAGE GUIDELINE IS NOT AN AUTHORIZATION, CERTIFICATION, EXPLANATION OF BENEFITS, OR A GUARANTEE OF PAYMENT, NOR DOES IT SUBSTITUTE FOR OR CONSTITUTE MEDICAL ADVICE. ALL MEDICAL DECISIONS ARE SOLELY THE RESPONSIBILITY OF THE PATIENT AND PHYSICIAN. BENEFITS ARE DETERMINED BY THE GROUP CONTRACT, MEMBER BENEFIT BOOKLET, AND/OR INDIVIDUAL SUBSCRIBER CERTIFICATE IN EFFECT AT THE TIME SERVICES WERE RENDERED. THIS MEDICAL COVERAGE GUIDELINE APPLIES TO ALL LINES OF BUSINESS UNLESS OTHERWISE NOTED IN THE PROGRAM EXCEPTIONS SECTION.

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DESCRIPTION:

The electroretinogram (ERG) is a diagnostic test that measures the electrical activity of the retina in response to a light stimulus. The ERG arises from currents generated directly by retinal neurons in combination with contributions from retinal glia. Importantly, the ERG is an objective measure of retinal function that can be recorded non-invasively under physiological conditions. ERGs are often recorded using a thin fiber electrode that is placed in contact with the cornea or an electrode that is embedded within a corneal contact lens. These electrodes permit the electrical activity generated by the retina to be recorded at the corneal surface. The ERG can be elicited by diffuse flashes or patterned stimuli. The full-field ERG is a mass response of the retina that has contributions from several retinal sources, summed throughout the retina. This is useful in diseases that have widespread retinal dysfunction: e.g. rod/cone dystrophies, cancer associated retinopathy, and toxic retinopathies. The multifocal ERG (mfERG) assesses many local ERG responses, typically 61 or 103, within the central 30 degrees. This provides important spatial information that is lacking in the ffERG, allowing dysfunction within the macula that might be missed by ffERG to be assessed. The pattern ERG (pERG) uses contrast reversing pattern stimuli (sinewave gratings or checkerboards) to assess macular retinal ganglion cell (RGC) activity.

POSITION STATEMENT:

Full field electroretinography (ERG) **meets the definition of medical necessity** for the following:

- To detect loss of retinal function, **OR**
- To distinguish between retinal lesions and optic nerve lesions

Multi-focal Electroretinography (mfERG) **meets the definition of medical necessity:**

- To detect chloroquine (Aralen) and hydroxychloroquine (Plaquenil) toxicity

Electroretinography (ERG) and multi-focal electroretinography (mfERG) are considered **experimental or investigational** for all other conditions. The data in published medical literature are inadequate to permit scientific conclusions on long-term and net health outcomes for conditions not listed above.

Pattern electroretinography (PERG) is considered **experimental or investigational**. There is a lack of clinical scientific evidence published in peer-reviewed literature to permit conclusions on net health outcomes.

BILLING/CODING INFORMATION:

CPT Coding

0509T	Electroretinography (ERG) with interpretation and report, pattern (PERG) (Investigational)
92273	Electroretinography (ERG), with interpretation and report; full field (ie, ffERG, flash ERG, Ganzfeld ERG)
92274	Electroretinography (ERG), with interpretation and report; multifocal (mfERG)

ICD-10 Diagnosis Codes That Support Medical Necessity (92273)

A18.53	Tuberculous chorioretinitis
E08.311-E08.39	Diabetes mellitus due to underlying condition with ophthalmic complications
E09.311-E09.39	Drug or chemical induced diabetes mellitus with ophthalmic complications
E10.311-E10.39	Type 1 diabetes mellitus with ophthalmic complications
E11.311-E11.39	Type 2 diabetes mellitus with ophthalmic complications
E13.311-E13.39	Other specified diabetes mellitus with ophthalmic complications
G45.3	Amaurosis fugax
H30.001-H30.149	Chorioretinal inflammation
H30.20-H30.23	Posterior cyclitis
H30.811-H30.93	Harada's disease; other chorioretinal inflammations
H31.001-H31.429	Chorioretinal scars
H33.001-H33.119	Retinal detachment
H33.191-H33.8	Retinoschisis and retinal cysts; other retinal attachments
H34.00-H34.9	Retinal artery occlusion; retinal vein occlusions
H35.00-H35.89	Retinopathy; retinal micro-aneurysms; retinal vasculitis
H36.811-H36.819	Nonproliferative sickle-cell retinopathy
H36.821-H36.829	Proliferative sickle-cell retinopathy
H36.89	Other retinal disorders in diseases classified elsewhere
H40.1110 – H40.1194	Primary open-angle glaucoma, staged
H46.00-H46.9	Optic papillitis

H47.011-H47.399	Ischemic optic neuropathy; optic nerve hemorrhage; other disorders of optic disc
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ICD-10 Diagnosis Codes That Support Medical Necessity (92274)

T37.2X1A	Poisoning by antimalarials and drugs acting on other blood protozoa, accidental (unintentional), initial encounter
T37.2X2A	Poisoning by antimalarials and drugs acting on other blood protozoa, intentional self-harm, initial encounter
T37.2X3A	Poisoning by antimalarials and drugs acting on other blood protozoa, assault, initial encounter
T37.2X4A	Poisoning by antimalarials and drugs acting on other blood protozoa, undetermined, initial encounter

REIMBURSEMENT INFORMATION:

Refer to section entitled [POSITION STATEMENT](#).

PROGRAM EXCEPTIONS:

Federal Employee Program (FEP): Follow FEP guidelines.

State Account Organization (SAO): Follow SAO guidelines.

Medicare Advantage products: The following Local Coverage Determination (LCD) was reviewed on the last guideline review date: ELECTRORETINOGRAPHY (ERG) (L37398), located at cms.gov.

DEFINITIONS:

No guideline specific definitions apply.

RELATED GUIDELINES:

[Scanning Computerized Ophthalmic Diagnostic Imaging, 01-92000-17](#)

OTHER:

None applicable

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COMMITTEE APPROVAL:

This Medical Coverage Guideline (MCG) was approved by the Florida Blue Medical Policy and Coverage Committee on 05/25/23.

GUIDELINE UPDATE INFORMATION:

05/15/15	New Medical Coverage Guideline.
11/01/15	Revision: ICD-9 Codes deleted.
04/15/16	Scheduled review. Maintained position statement. Updated references.
10/01/16	ICD-10 coding update: added codes H40.1110 – H40.1194.
05/15/17	Scheduled review. Position statement maintained. Guideline reformatted. Updated references.
04/15/18	Scheduled review. Position statement maintained. Revised Medicare Advantage program exception. Updated references.
01/01/19	Annual CPT/HCPCS coding update: added 92273 and 92274, deleted 92275. Revised ICD10 coding.
04/15/19	Scheduled review. Revised description, added coverage statement (E/I) for pattern electroretinography (PERG), added code 0509T. Updated references.
04/15/20	Scheduled review. Maintained position statement and updated references.
06/15/21	Scheduled review. Maintained position statement and updated references.
06/15/23	Scheduled review. Revised description, maintained position statement, and updated references.
10/01/23	ICD10 coding update: added H36.811, H36.812, H36.813, H36.819, H36.821, H36.822, H36.823, H36.829, H36.89; deleted H36.