Clinical Policy: Teleretinal Screening for Diabetic Retinopathy

Reference Number: WNC.CP.186 Coding Implications
Last Review Date: 08/23 Revision Log

See Important Reminder at the end of this policy for important regulatory and legal information.

Note: When state Medicaid coverage provisions conflict with the coverage provisions in this clinical policy, state Medicaid coverage provisions take precedence. Please refer to the state Medicaid manual for any coverage provisions pertaining to this clinical policy.

Description

This policy describes the medical necessity guidelines for teleretinal screening as an alternative to retinopathy evaluation by an Ophthalmologist or Optometrist.

Policy/Criteria

I. It is the policy of WellCare of North Carolina® that teleretinal screening for diabetic retinopathy is **medically necessary** when all of the following are met:
   A. Diagnosis of Diabetes

II. It is the policy of WellCare of North Carolina® that teleretinal screening for diabetic retinopathy is **not medically necessary** for **all** of the following indications:
   A. Prior diagnosis of Retinopathy
   B. Retinal evaluation within the past 11 months

Background

The prevalence of diabetes is increasing with increasing industrialization and globalization. Duration of diabetes is a major risk factor associated with the development of diabetic retinopathy. Consequently, the prevalence of diabetic retinopathy and vision-threatening diabetic retinopathy is also expected to increase. Diabetes is currently the leading cause of new cases of blindness among adults aged 18–64 years; however, only an estimated 60% of people with diabetes have recommended yearly screenings for diabetic retinopathy. The purpose of an effective screening program for diabetic retinopathy is to determine who needs to be referred for close follow-up and possible treatment and who may simply be screened annually. Some studies have shown that screening programs using digital retinal images taken with or without dilation may enable early detection of diabetic retinopathy along with an appropriate referral.

In the presence of barriers to obtaining a diabetic eye examination with an ophthalmologist or optometrist, teleretinal alternatives have the ability to close care gaps among diabetic patients without a prior retinopathy diagnosis, allowing for earlier detection and intervention. Furthermore, studies suggest that telehealth eye care programs that combine retinal imaging, education, and some care management can improve patient adherence to annual, comprehensive eye examinations and follow-up treatments. Intensive diabetes management with

the goal of achieving near normoglycemia has been shown in large prospective randomized studies to prevent and/or delay the onset and progression of diabetic retinopathy.

The National Committee for Quality Assurance (NCQA) Healthcare Effectiveness Data and Information Set (HEDIS) measure for retinal eye exam (DRE) recognizes teleretinal imaging with interpretation by ophthalmologists or optometrists or artificial intelligence (AI) detection software. Teleretinal imaging and eye examination results show significant correlation and moderate agreement. The diagnostic accuracy of telemedicine using digital imaging in diabetic retinopathy is overall high, allowing wide use for diabetic retinopathy screening. Pooled resulting sensitivity of teleretinal imaging and interpretation exceeds 80% in detecting the absence of diabetic retinopathy, while specificity exceeds 90%, except in the detection of mild non-proliferative diabetic retinopathy which reaches 89%. Cataract and smaller pupil size were significantly associated with ungradable retinal images. A single nonmydriatic monochromatic wide-field digital photograph of the disk and macula was found to be more sensitive for diabetic retinopathy screening than mydriatic ophthalmoscopy by an eye care provider.

When applied in a screening population comprising patients with diabetes with untreated diabetic retinopathy in any eye and patients with diabetes without retinopathy, automated lesion detection correctly identified 90.1% of patients with retinopathy and 81.3% of patients without retinopathy. A per-eye analysis for methodological purposes demonstrated that the automated lesion detection could be adapted to simulate various visual evaluation strategies. When adapted at high sensitivity, the automated system demonstrated sensitivity at 93.1% and specificity at 71.6%. When adapted at high specificity the automated system demonstrated sensitivity at 76.4% and specificity at 96.6%, closely matching routine visual grading at sensitivity 76.4% and specificity 98.3%. Automated detection of untreated diabetic retinopathy in fundus photographs from a screening population of patients with diabetes can be made with adjustable priority settings, emphasizing high-sensitivity identification of diabetic retinopathy or high-specificity identification of absence of retinopathy, covering opposing extremes of visual evaluation strategies demonstrated by human observers.

Coding Implications

This clinical policy references Current Procedural Terminology (CPT®). CPT® is a registered trademark of the American Medical Association. All CPT codes and descriptions are copyrighted 2023, American Medical Association. All rights reserved. CPT codes and CPT descriptions are from the current manuals and those included herein are not intended to be all-inclusive and are included for informational purposes only. Codes referenced in this clinical policy are for informational purposes only. Inclusion or exclusion of any codes does not guarantee coverage. Providers should reference the most up-to-date sources of professional coding guidance prior to the submission of claims for reimbursement of covered services.

CPT®* Codes	Description
92227	Imaging of retina for detection or monitoring of disease; with remote clinical staff review and report, unilateral or bilateral
92228	Imaging of retina for detection or monitoring of disease; with remote physician or other qualified healthcare professional, interpretation and report, unilateral or bilateral

CPT®* Codes	Description
92229	Imaging of retina for detection or monitoring of disease; point-of-care automated analysis and report, unilateral or bilateral

HCPCS ®* Codes	Description
2024F	7 standard field stereoscopic retinal photos with interpretation by an ophthalmologist or optometrist documented and reviewed; with evidence of retinopathy (DM)
2025F	7 standard field stereoscopic retinal photos with interpretation by an ophthalmologist or optometrist documented and reviewed; without evidence of retinopathy (DM)
2026F	Eye imaging validated to match diagnosis from 7 standard field stereoscopic retinal photos results documented and reviewed; with evidence of retinopathy (DM)
2033F	Eye imaging validated to match diagnosis from 7 standard field stereoscopic retinal photos results documented and reviewed; without evidence of retinopathy (DM)

ICD-10-CM Diagnosis Codes that Support Coverage Criteria

+ Indicates a code(s) requiring an additional character

ICD-10-CM Code	Description
E08.00 – E08.9	Diabetes mellitus due to underlying condition
E09.00 – E09.9	Drug or chemical induced diabetes mellitus
E10.00 – E10.9	Type 1 diabetes mellitus
E11.00 – E11.9	Type 2 diabetes mellitus
E13.00 – E13.9	Other specified diabetes mellitus

Reviews, Revisions, and Approvals	Reviewed Date	Approval Date
Original approval date	03/21	06/21
Deleted CPT Code 92250 from list of applicable CPT Codes for teleretinal screening; Added new CPT code 92229. Under description, deleted reference link with no change to criteria; reviewed and updated descriptions for CPT, HCPCS, ICD-10-CM codes. References updated.	08/22	08/22
NCHC verbiage removed from NC Guidance Verbiage.	04/23	04/23
Annual Review. CPT-10-CM, HCPCS, CPT and References reviewed.	08/23	08/23

References

1. American Academy of Ophthalmology Retina/Vitreous Panel. Preferred Practice Pattern® Guidelines. Diabetic Retinopathy. San Francisco, CA. American Academy of Ophthalmology; 2019. https://www.aao.org/preferred-practice-pattern/diabetic-retinopathy-ppp

2. National Committee for Quality Assurance (NCQA) HEDIS Measures and Technical Resources / Comprehensive Diabetes Care. https://www.ncqa.org/hedis/measures/comprehensive-diabetes-care/
3. Centers for Disease Control and Prevention (CDC). 2020. "National Diabetes Statistics Report: Estimates of Diabetes and Its Burden in the United States, 2020." Atlanta, GA: U.S. Department of Health and Human Services. https://www.cdc.gov/diabetes/pdfs/data/statistics/national-diabetes-statistics-report.Pdf
4. Shi L, Wu H, Dong J, et al. Telemedicine for detecting diabetic retinopathy: a systematic review and meta- analysis. British Journal of Ophthalmology. Jun 2015;99(6):823-831. PMID 25563767.
5. Conlin PR, Fisch BM, Cavallerano AA, Cavallerano JD, Bursell SE, Aiello LM. Nonmydriatic teleretinal imaging improves adherence to annual eye examinations in patients with diabetes. J Rehabil Res Dev. 2006;43(6):733-740.
6. Fonda SJ, Bursell SE, Lewis DG, Garren J, Hock K, Cavallerano J. The relationship of a diabetes telehealth eye care program to standard eye care and change in diabetes health outcomes. Telemed J E Health. 2007;13(6):635-644.
7. Li HK, Horton M, Bursell SE, et al. Telehealth practice recommendations for diabetic retinopathy, second edition. Telemed J E Health. 2011;17(10):814-837.
8. Lin DY, Blumenkranz MS, Brothers RJ, Grosvenor DM. The sensitivity and specificity of single field nonmydriatic monochromatic digital fundus photography with remote image interpretation for diabetic retinopathy screening: a comparison with ophthalmoscopy and standardized mydriatic color photography. American Journal of Ophthalmology. 2002;134(2):204-213.
9. Larsen N, Godt J, Grunkin M, Lund-Andersen H, Larsen M. Automated detection of diabetic retinopathy in a fundus photographic screening population. Investigative Ophthalmology & Vision Science. 2003;44(2):767- 771.
10. Solomon, SS, Chew, EE, Duh, EE, Sobrin, LL, Sun, JJ, VanderBeek, BB, Wykoff, CC, Gardner, TT. Diabetic Retinopathy: A Position Statement by the American Diabetes Association. Diabetes Care, 2017 Feb 23;40(3). PMID 28223445.

North Carolina Guidance

Eligibility Requirements

a. An eligible beneficiary shall be enrolled in the NC Medicaid Program (Medicaid is NC Medicaid program, unless context clearly indicates otherwise);
b. Provider(s) shall verify each Medicaid beneficiary's eligibility each time a service is rendered.
c. The Medicaid beneficiary may have service restrictions due to their eligibility category that would make them ineligible for this service.

EPSDT Special Provision: Exception to Policy Limitations for a Medicaid Beneficiary under 21 Years of Age

a. 42 U.S.C. § 1396d(r) [1905(r) of the Social Security Act]

Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) is a federal Medicaid requirement that requires the state Medicaid agency to cover services, products, or procedures for Medicaid beneficiary under 21 years of age if the service is medically

necessary health care to correct or ameliorate a defect, physical or mental illness, or a condition [health problem] identified through a screening examination (includes any evaluation by a physician or other licensed practitioner).

This means EPSDT covers most of the medical or remedial care a child needs to improve or maintain his or her health in the best condition possible, compensate for a health problem, prevent it from worsening, or prevent the development of additional health problems.

Medically necessary services will be provided in the most economic mode, as long as the treatment made available is similarly efficacious to the service requested by the beneficiary's physician, therapist, or other licensed practitioner; the determination process does not delay the delivery of the needed service; and the determination does not limit the beneficiary's right to a free choice of providers.

EPSDT does not require the state Medicaid agency to provide any service, product or procedure:

1. that is unsafe, ineffective, or experimental or investigational.
2. that is not medical in nature or not generally recognized as an accepted method of medical practice or treatment.

Service limitations on scope, amount, duration, frequency, location of service, and other specific criteria described in clinical coverage policies may be exceeded or may not apply as long as the provider's documentation shows that the requested service is medically necessary "to correct or ameliorate a defect, physical or mental illness, or a condition" [health problem]; that is, provider documentation shows how the service, product, or procedure meets all EPSDT criteria, including to correct or improve or maintain the beneficiary's health in the best condition possible, compensate for a health problem, prevent it from worsening, or prevent the development of additional health problems.

EPSDT and Prior Approval Requirements

1. If the service, product, or procedure requires prior approval, the fact that the beneficiary is under 21 years of age does NOT eliminate the requirement for prior approval.
2. **IMPORTANT ADDITIONAL INFORMATION** about EPSDT and prior approval is found in the *NCTracks Provider Claims and Billing Assistance Guide*, and on the EPSDT provider page. The Web addresses are specified below:
   NCTracks Provider Claims and Billing Assistance Guide:
   https://www.nctracks.nc.gov/content/public/providers/provider-manuals.html
   EPSDT provider page: https://medicaid.ncdhhs.gov/

Provider(s) Eligible to Bill for the Procedure, Product, or Service
To be eligible to bill for the procedure, product, or service related to this policy, the provider(s) shall:

a. meet Medicaid qualifications for participation;
b. have a current and signed Department of Health and Human Services (DHHS) Provider Administrative Participation Agreement; and

c. bill only for procedures, products, and services that are within the scope of their clinical practice, as defined by the appropriate licensing entity.

Compliance

Provider(s) shall comply with the following in effect at the time the service is rendered:

a. All applicable agreements, federal, state and local laws and regulations including the Health Insurance Portability and Accountability Act (HIPAA) and record retention requirements; and
b. All NC Medicaid's clinical (medical) coverage policies, guidelines, policies, provider manuals, implementation updates, and bulletins published by the Centers for Medicare and Medicaid Services (CMS), DHHS, DHHS division(s) or fiscal contractor(s).

Claims-Related Information

Provider(s) shall comply with the NC Tracks Provider Claims and Billing Assistance Guide, Medicaid bulletins, fee schedules, NC Medicaid's clinical coverage policies and any other relevant documents for specific coverage and reimbursement for Medicaid:

a. Claim Type - as applicable to the service provided:
   Professional (CMS-1500/837P transaction)
   Institutional (UB-04/837I transaction)
   Unless directed otherwise, Institutional Claims must be billed according to the National Uniform Billing Guidelines. All claims must comply with National Coding Guidelines.
b. International Classification of Diseases and Related Health Problems, Tenth Revisions, Clinical Modification (ICD-10-CM) and Procedural Coding System (PCS) - Provider(s) shall report the ICD-10-CM and Procedural Coding System (PCS) to the highest level of specificity that supports medical necessity. Provider(s) shall use the current ICD-10 edition and any subsequent editions in effect at the time of service. Provider(s) shall refer to the applicable edition for code description, as it is no longer documented in the policy.
c. Code(s) - Provider(s) shall report the most specific billing code that accurately and completely describes the procedure, product or service provided. Provider(s) shall use the Current Procedural Terminology (CPT), Health Care Procedure Coding System (HCPCS), and UB-04 Data Specifications Manual (for a complete listing of valid revenue codes) and any subsequent editions in effect at the time of service. Provider(s) shall refer to the applicable edition for the code description, as it is no longer documented in the policy. If no such specific CPT or HCPCS code exists, then the provider(s) shall report the procedure, product or service using the appropriate unlisted procedure or service code.
   Unlisted Procedure or Service
   CPT: The provider(s) shall refer to and comply with the Instructions for Use of the CPT Codebook, Unlisted Procedure or Service, and Special Report as documented in the current CPT in effect at the time of service.
   HCPCS: The provider(s) shall refer to and comply with the Instructions For Use of HCPCS National Level II codes, Unlisted Procedure or Service and Special Report as documented in the current HCPCS edition in effect at the time of service
d. Modifiers - Providers shall follow applicable modifier guidelines.
e. Billing Units - Provider(s) shall report the appropriate code(s) used which determines the billing unit(s).

f. Co-payments -
For Medicaid refer to Medicaid State Plan:
https://medicaid.ncdhhs.gov/get-involved/nc-health-choice-state-plan

g. Reimbursement - Provider(s) shall bill their usual and customary charges. For a schedule of rates, refer to: https://medicaid.ncdhhs.gov/.

Important Reminder

This clinical policy has been developed by appropriately experienced and licensed health care professionals based on a review and consideration of currently available generally accepted standards of medical practice; peer-reviewed medical literature; government agency/program approval status; evidence-based guidelines and positions of leading national health professional organizations; views of physicians practicing in relevant clinical areas affected by this clinical policy; and other available clinical information. The Health Plan makes no representations and accepts no liability with respect to the content of any external information used or relied upon in developing this clinical policy. This clinical policy is consistent with standards of medical practice current at the time that this clinical policy was approved. "Health Plan" means a health plan that has adopted this clinical policy and that is operated or administered, in whole or in part, by Centene Management Company, LLC, or any of such health plan's affiliates, as applicable.

The purpose of this clinical policy is to provide a guide to medical necessity, which is a component of the guidelines used to assist in making coverage decisions and administering benefits. It does not constitute a contract or guarantee regarding payment or results. Coverage decisions and the administration of benefits are subject to all terms, conditions, exclusions and limitations of the coverage documents (e.g., evidence of coverage, certificate of coverage, policy, contract of insurance, etc.), as well as to state and federal requirements and applicable Health Plan-level administrative policies and procedures.

This clinical policy is effective as of the date determined by the Health Plan. The date of posting may not be the effective date of this clinical policy. This clinical policy may be subject to applicable legal and regulatory requirements relating to provider notification. If there is a discrepancy between the effective date of this clinical policy and any applicable legal or regulatory requirement, the requirements of law and regulation shall govern. The Health Plan retains the right to change, amend or withdraw this clinical policy, and additional clinical policies may be developed and adopted as needed, at any time.

This clinical policy does not constitute medical advice, medical treatment or medical care. It is not intended to dictate to providers how to practice medicine. Providers are expected to exercise professional medical judgment in providing the most appropriate care, and are solely responsible for the medical advice and treatment of members/enrollees. This clinical policy is not intended to recommend treatment for members/enrollees. Members/enrollees should consult with their treating physician in connection with diagnosis and treatment decisions.

Providers referred to in this clinical policy are independent contractors who exercise independent judgment and over whom the Health Plan has no control or right of control. Providers are not agents or employees of the Health Plan.