Clinical Policy: Teleretinal Screening for Diabetic Retinopathy

Description
This policy describes the medical necessity guidelines for teleretinal screening as an alternative to retinopathy evaluation by an ophthalmologist or optometrist.

See clinical policy CP.VP.29 Fundus Photography and clinical practice guidelines CPG.VP.22 Examination Guidelines for Diabetic Patients.

Policy/Criteria
I. It is the policy of health plans affiliated with Centene Corporation® 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 health plans affiliated with Centene Corporation® 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 2018, 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 resources of professional coding guidance prior to the submission of claims for reimbursement of covered services.

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<thead>
<tr>
<th>CPT® Codes</th>
<th>Description</th>
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<tr>
<td>92227</td>
<td>Remote imaging for detection of retinal disease (e.g., retinopathy in a patient with diabetes) with analysis and report under physician supervision, unilateral or bilateral</td>
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<tr>
<td>92228</td>
<td>Remote imaging for monitoring and management of active retinal disease (e.g., diabetic retinopathy) with physician review, interpretation and report, unilateral or bilateral</td>
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<tr>
<td>92250</td>
<td>Fundus photography with interpretation and report</td>
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<table>
<thead>
<tr>
<th>HCPCS Codes</th>
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<td>2024F</td>
<td>7 standard field stereoscopic retinal photos with interpretation by an ophthalmologist or optometrist documented and reviewed; with evidence of retinopathy (DM)</td>
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<tr>
<td>2025F</td>
<td>7 standard field stereoscopic retinal photos with interpretation by an ophthalmologist or optometrist documented and reviewed; without evidence of retinopathy (DM)</td>
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<td>Eye imaging validated to match diagnosis from 7 standard field stereoscopic retinal photos results documented and reviewed; with evidence of retinopathy (DM)</td>
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<td>2033F</td>
<td>Eye imaging validated to match diagnosis from 7 standard field stereoscopic retinal photos results documented and reviewed; without evidence of retinopathy (DM)</td>
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ICD-10-CM Diagnosis Codes that Support Coverage Criteria
+ Indicates a code requiring an additional character

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<th>Description</th>
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<td>E08.00 – E08.9</td>
<td>Diabetes mellitus due to underlying condition</td>
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<td>E09.00 – E09.9</td>
<td>Drug or chemical induced diabetes mellitus</td>
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<td>E13.00 – E13.9</td>
<td>Other specified diabetes mellitus</td>
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Reviews, Revisions, and Approvals

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<td>07/2020</td>
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References
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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.

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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. This clinical policy is not intended to recommend treatment for members. Members should consult with their treating physician in connection with diagnosis and treatment decisions.

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**Note: For Medicaid members,** 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.

**Note: For Medicare members,** to ensure consistency with the Medicare National Coverage Determinations (NCD) and Local Coverage Determinations (LCD), all applicable NCDs, LCDs, and Medicare Coverage Articles should be reviewed prior to applying the criteria set forth in this clinical policy. Refer to the CMS website at [http://www.cms.gov](http://www.cms.gov) for additional information.

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