

Local Coverage Determination (LCD): Corneal Pachymetry (L34512)

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Contractor Information

CONTRACTOR NAME	CONTRACT TYPE	CONTRACT NUMBER	JURISDICTION	STATE(S)
Palmetto GBA	A and B MAC	10111 - MAC A	J - J	Alabama
Palmetto GBA	A and B MAC	10112 - MAC B	J - J	Alabama
Palmetto GBA	A and B MAC	10211 - MAC A	J - J	Georgia
Palmetto GBA	A and B MAC	10212 - MAC B	J - J	Georgia
Palmetto GBA	A and B MAC	10311 - MAC A	J - J	Tennessee
Palmetto GBA	A and B MAC	10312 - MAC B	J - J	Tennessee
Palmetto GBA	A and B and HHH MAC	11201 - MAC A	J - M	South Carolina
Palmetto GBA	A and B and HHH MAC	11202 - MAC B	J - M	South Carolina
Palmetto GBA	A and B and HHH MAC	11301 - MAC A	J - M	Virginia
Palmetto GBA	A and B and HHH MAC	11302 - MAC B	J - M	Virginia
Palmetto GBA	A and B and HHH MAC	11401 - MAC A	J - M	West Virginia
Palmetto GBA	A and B and HHH MAC	11402 - MAC B	J - M	West Virginia
Palmetto GBA	A and B and HHH MAC	11501 - MAC A	J - M	North Carolina
Palmetto GBA	A and B and HHH MAC	11502 - MAC B	J - M	North Carolina

LCD Information

Document Information

LCD ID

L34512

Original Effective Date

For services performed on or after 10/01/2015

LCD Title

Corneal Pachymetry

Revision Effective Date

For services performed on or after 06/18/2020

Proposed LCD in Comment Period

N/A

Revision Ending Date

N/A

Source Proposed LCD

N/A

Retirement Date

N/A

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Notice Period Start Date
N/A

Notice Period End Date
N/A

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CMS National Coverage Policy

Title XVIII of the Social Security Act, §1861(s)(2)(K) addresses services which would be physicians' services if furnished by a physician and which are performed by a physician assistant, nurse practitioner or clinical nurse specialist.

Title XVIII of the Social Security Act, §1862(a)(1)(A) allows coverage and payment for only those services that are considered to be reasonable and necessary for the diagnosis or treatment of illness or injury or to improve the functioning of a malformed body member.

Title XVIII of the Social Security Act, §1862(a)(7) excludes routine physical examinations.

Title XVIII of the Social Security Act, §1862(a)(14) excludes payment for services, which are other than physicians' services, certified nurse-midwife services, qualified psychologist services, and services of a certified registered nurse

anesthetist, and which are furnished to an individual who is a patient of a hospital or critical access hospital by an entity other than the hospital or critical access hospital, unless the services are furnished under arrangements with the entity made by the hospital or critical access hospital.

42 Code of Federal Regulations (CFR) §410.74 Physician's assistants' services

42 Code of Federal Regulations (CFR) §410.75 Nurse practitioners' services

42 Code of Federal Regulations (CFR) §410.76 Clinical nurse specialists' services

42 Code of Federal Regulations (CFR) §419.22 Hospital services excluded from payment under the hospital outpatient prospective payment system

Federal Register, Vol. 65, No. 68, dated Friday, April 7, 2000, page 18543

Coverage Guidance

Coverage Indications, Limitations, and/or Medical Necessity

Abstract:

Corneal pachymetry is the measurement of corneal thickness and commonly uses either ultrasonic or optical methods. Measurement of corneal thickness in individuals presenting with increased intraocular pressure assists in determining if there is a risk of glaucoma, or if the individual's increased eye pressure is the result of abnormal corneal thickness. The test must be integral to the medical management decision-making of the patient. Coverage is limited to ophthalmologists and optometrists.

Indications and Limitations:

Medicare will consider corneal pachymetry to be medically necessary and reasonable, when performed to determine:

- The amount of endothelial trauma sustained during surgery involving the cornea
- Preoperative assessment of the health of the cornea in Fuch's dystrophy
- Assessment of corneal thickness after ocular trauma
- Assessment of corneal thickness in suspected glaucoma following the diagnosis of increased intraocular pressure AND prior to the initiation of a treatment regimen for glaucoma

It is expected that a service for a corneal thickness measurement following the diagnosis of increased intraocular pressure will be performed once in a lifetime per beneficiary, unless there has been interval corneal trauma or surgery following a previous measurement. The lifetime limit ONLY applies for measurements done to assess corneal thickness, in conjunction with a glaucoma diagnosis. The limit does not apply in cases where the assessment of corneal thickness is required after ocular trauma (surgical or accidental) has been sustained, including the management of bullous keratopathy resulting from surgical or accidental trauma, or in Fuch's dystrophy.

Medicare will consider corneal pachymetry to be medically necessary and reasonable when performed only by ophthalmologists and optometrists.

Medicare will not pay for use of pachymetry when used in preparation for surgery to reshape the cornea of the eye for the purpose of correcting visual problems (refractive surgery), such as myopia (nearsightedness) and hyperopia (farsightedness). When the change in the corneal shape results from a previous partial or complete corneal transplant, Medicare will cover a pachymetry service.

Whether patients have been previously diagnosed and are under treatment for glaucoma or are newly diagnosed, pachymetry will be covered once per lifetime per provider, or more frequently in cases where there has been surgical or non-surgical trauma.

Other Comments:

Limitation of liability and refund requirements apply when denials are likely, whether based on medical necessity or other coverage reasons. The provider/supplier must notify the beneficiary in writing, prior to rendering the service, if the provider/supplier is aware that the test, item or procedure may not be covered by Medicare. The limitation of liability and refund requirements do not apply when the test, item or procedure is statutorily excluded, has no Medicare benefit category, or is rendered for screening purposes.

For outpatient settings, other than Comprehensive Outpatient Rehabilitation Facilities (CORFs), references to "physicians" throughout this policy include non-physicians, such as nurse practitioners, clinical nurse specialists and physician assistants. Such non-physician practitioners, with certain exceptions, may certify, order and establish the plan of care as authorized by State law.

Summary of Evidence

N/A

Analysis of Evidence (Rationale for Determination)

N/A

General Information

Associated Information

Documentation Requirements

Medical record documentation maintained by the ordering/referring physician must indicate the medical necessity for performing the test and the test results. In addition, if the service exceeds the frequency parameter listed in this policy, documentation of medical necessity must be submitted. This information is usually found in the history and physical, office/progress notes, or test results.

If the provider of the service is other than the ordering/referring physician, that provider must maintain hard copy

documentation of test results and interpretation, along with copies of the ordering/referring physician's order for the studies. The physician must state the clinical indication/medical necessity for the study in the order for the test.

Documentation should contain a history and physical, which supports the diagnosis for which this service is being rendered. Documentation must be legible, relevant and sufficient to justify the services billed. This documentation must be made available to the A/B MAC upon request.

Utilization Guidelines

Palmetto GBA expects these services to be performed, as indicated by current medical literature and/or standards of practice. When services are performed in excess of established parameters, they may be subject to review for medical necessity.

Palmetto GBA expects that the services for the measurement of corneal thickness, in conjunction with a glaucoma diagnosis, will be performed once in a lifetime, unless there has been interval corneal trauma (surgical or accidental), including the management of bullous keratopathy resulting from surgical or accidental trauma, or in Fuch's dystrophy.

Sources of Information

N/A

Bibliography

Albert DM, Jakobiec FA. *Principles and Practice of Ophthalmology*. 2nd ed. Philadelphia, PA: WB Saunders; 2000.

Brandt JD. Corneal thickness in glaucoma screening, diagnosis and management. *Curr Opin Ophthalmol*. 2004;15(2):85-9.

Chen PP, Kim JW. Central corneal pachymetry and visual field progression in patients with open-angle glaucoma. *Ophthalmology*. 2004;111(11):2126-32.

Gordon MO, Beiser JA, Brandt JD, et al. The ocular hypertension treatment study: Baseline factors that predict the onset of primary open-angle glaucoma. *Arch Ophthalmol*. 2002; 120(6):714-20.

Herndon LW, Stinnet SS, Weizer JS. Central corneal thickness as a risk factor for advanced glaucoma damage. *Archives of Ophthalmology*. 2004;122(1):17-21.

Ho T, Cheng AC, Rao SK, Lau S, Leung CK, Lam DS. Central corneal thickness measurements using Orbscan II, Visante, ultrasound, and pentacam pachymetry after laser in situ keratomileusis for myopia. *J Cataract Refract Surg*. 2007;33(7):1177-82.

Kass MA, Heuer DK, Higginbotham EJ, et al. The ocular hypertension treatment study: A randomized trial determines that topical ocular hypotensive medication delays or prevents the onset of primary open-angle glaucoma. *Archives of Ophthalmology*. 2002;120(6):701-13.

Kim HY, Budenz DL, Lee PS, Feuer WJ, Barton K. Comparison of central corneal thickness using anterior segment optical coherence tomography vs ultrasound pachymetry. *Am J Ophthalmology*. 2008;145(2):228-32.

Leung DY, Lam DK, Yeung BY, Lam DS. Comparison between central corneal thickness measurements by ultrasound pachymetry and optical coherence tomography. *Clinical & Experimental Ophthalmology*. 2006;34(8):751-4.

Lleo A, Marcos A, Alonso L, Calatayud M, Rahhal SM, Sanchis-Gimeno JA. The relationship between central corneal thickness and Goldmann applanation tonometry. *Clin Exp Optom*. 2003;86(2):104-8.

Medeiros FA, Sample PA, Zangwill LM, Bowd C, Aihara M, Weinreb RN. Corneal thickness as a risk factor for visual field loss in patients with preperimetric glaucomatous optic neuropathy. *American Journal of Ophthalmology*. 2003;136(5):805-813.

Nemesure B, Wu SY, Hennis A, Leske MC, Barbados Eye Study Group. Corneal thickness and intraocular pressure in the Barbados eye studies. *Archives of Ophthalmology*. 2003;121(2):240-244.

Palmberg P. Answers from the ocular hypertension treatment study. *Arch Ophthalmol*. 2002;120(6):829-30.

Shih CY, Trokel SL, Tsai JC, Graff Zivin JS. Clinical significance of central corneal thickness in the management of glaucoma. *Archives of Ophthalmology*. 2004;122(9):1270-5.

Ventura AC, Bohnke M, Mojon DS. Central corneal thickness measurements in patients with normal tension glaucoma, primary open angle glaucoma, pseudoexfoliation glaucoma, or ocular hypertension. *Br J Ophthalmology*. 2001;85(7):792-5.

Wang J, Fonn D, Simpson TL, Jones L. Relation between optical coherence tomography and optical pachymetry measurements of corneal swelling induced by hypoxia. *Am J Ophthalmology*. 2002;134(1):93-8.

Revision History Information

REVISION HISTORY DATE	REVISION HISTORY NUMBER	REVISION HISTORY EXPLANATION	REASON(S) FOR CHANGE
06/18/2020	R16	<p>Under CMS National Coverage Policy added sections 1861(s)(2)(K) and 1862(a)(14) of Title XVIII of the Social Security Act, sections 410.74, 410.75, 410.76, 419.22 from 42 Code of Federal Regulations (CFR), and Federal Register, Vol. 65, No. 68 dated Friday, April 7, 2000, page 18543.</p> <p>Under Coverage Indications, Limitations and/or Medical Necessity subheading Other Comments removed the verbiage "(See Sections 1861[s][2][K] and 1862[a][14] of Title XVIII of the Social Security Act; 42 CFR, Sections 410.74, 410.75, 410.76 and 419.22; 58 FR 18543, April 7, 2000.)". Under Bibliography the reference "Preferred Practice Pattern Guidelines. Primary open-angle glaucoma suspect. <i>American Academy of Ophthalmology Glaucoma Panel</i>. 2010." was removed as it is no longer accessible. Changes were made to citations to reflect AMA citation guidelines. Formatting, punctuation and typographical errors were corrected throughout the LCD.</p> <p><i>At this time 21st Century Cures Act will apply to new and</i></p>	<ul style="list-style-type: none"> Provider Education/Guidance

REVISION HISTORY DATE	REVISION HISTORY NUMBER	REVISION HISTORY EXPLANATION	REASON(S) FOR CHANGE
		<i>revised LCDs that restrict coverage which requires comment and notice. This revision is not a restriction to the coverage determination; and, therefore not all the fields included on the LCD are applicable as noted in this policy.</i>	
10/10/2019	R15	<p>This LCD is being revised in order to adhere to CMS requirements per chapter 13, section 13.5.1 of the Program Integrity Manual, to remove all coding from LCDs. There has been no change in coverage with this LCD revision. Regulations regarding billing and coding were removed from the CMS National Coverage Policy section of this LCD and placed in the related Billing and Coding: Corneal Pachymetry A56611 article.</p> <p><i>At this time 21st Century Cures Act will apply to new and revised LCDs that restrict coverage which requires comment and notice. This revision is not a restriction to the coverage determination; and, therefore not all the fields included on the LCD are applicable as noted in this policy.</i></p>	<ul style="list-style-type: none"> • Provider Education/Guidance
06/06/2019	R14	<p>All coding located in the Coding Information section has been removed and is included in the related Billing and Coding: Corneal Pachymetry A56611 article.</p> <p><i>At this time 21st Century Cures Act will apply to new and revised LCDs that restrict coverage which requires comment and notice. This revision is not a restriction to the coverage determination; and, therefore not all the fields included on the LCD are applicable as noted in this policy.</i></p>	<ul style="list-style-type: none"> • Provider Education/Guidance
04/11/2019	R13	<p>Under Coverage Indications, Limitations and/or Medical Necessity-Indications and Limitations, the verbiage was changed from "It is expected that a service for a corneal thickness measurement following the diagnosis of increased intraocular pressure will be performed once in a lifetime <i>per provider...</i> " to "It is expected that a service for a corneal thickness measurement following the diagnosis of increased intraocular pressure will be performed once in a lifetime <i>per beneficiary...</i>" Under Bibliography changes were made to reflect AMA citation guidelines. Formatting, punctuation and typographical errors were corrected throughout the LCD. Acronyms were inserted where appropriate throughout the</p>	<ul style="list-style-type: none"> • Provider Education/Guidance

REVISION HISTORY DATE	REVISION HISTORY NUMBER	REVISION HISTORY EXPLANATION	REASON(S) FOR CHANGE
		<p>LCD.</p> <p><i>At this time 21st Century Cures Act will apply to new and revised LCDs that restrict coverage which requires comment and notice. This revision is not a restriction to the coverage determination; and, therefore not all the fields included on the LCD are applicable as noted in this policy.</i></p>	
02/26/2018	R12	The Jurisdiction "J" Part B Contracts for Alabama (10112), Georgia (10212) and Tennessee (10312) are now being serviced by Palmetto GBA. The notice period for this LCD begins on 12/14/17 and ends on 02/25/18. Effective 02/26/18, these three contract numbers are being added to this LCD. No coverage, coding or other substantive changes (beyond the addition of the 3 Part B contract numbers) have been completed in this revision.	<ul style="list-style-type: none"> • Change in Affiliated Contract Numbers
01/29/2018	R11	The Jurisdiction "J" Part A Contracts for Alabama (10111), Georgia (10211) and Tennessee (10311) are now being serviced by Palmetto GBA. The notice period for this LCD begins on 12/14/17 and ends on 01/28/18. Effective 01/29/18, these three contract numbers are being added to this LCD. No coverage, coding or other substantive changes (beyond the addition of the 3 Part A contract numbers) have been completed in this revision.	<ul style="list-style-type: none"> • Change in Affiliated Contract Numbers
08/31/2017	R10	<p>Under Associated Information-Utilization Guidelines the verbiage was revised in the second paragraph. Under Related Local Coverage Documents the related article A54556 was deleted as it was retired on 8/24/17. Information in the retired article is currently included in the LCD.</p> <p>At this time 21st Century Cures Act will apply to new and revised LCDs that restrict coverage which requires comment and notice. This revision is not a restriction to the coverage determination; and, therefore not all the fields included on the LCD are applicable as noted in this policy.</p>	<ul style="list-style-type: none"> • Provider Education/Guidance • Other (Verbiage revised for clarification.)
06/09/2017	R9	Under CPT/HCPCS Codes Group 1: Paragraph deleted the verbiage "CPT code 92499 should be used to report optical	<ul style="list-style-type: none"> • Provider

REVISION HISTORY DATE	REVISION HISTORY NUMBER	REVISION HISTORY EXPLANATION	REASON(S) FOR CHANGE
		pachymetry” as CPT code 92499 (Unlisted ophthalmological service or procedure) is recommended for the use with other modalities of measuring corneal pachymetry.	Education/Guidance
04/23/2017	R8	Under Coverage Indications, Limitations and/or Medical Necessity – revised the sentence in the second paragraph under Indications and Limitations to read: “The lifetime limit ONLY applies for measurements done to assess corneal thickness in conjunction with a glaucoma diagnosis. The limit does not apply in cases where the assessment of corneal thickness is required after ocular trauma (surgical or accidental) has been sustained, including the management of bullous keratopathy resulting from surgical or accidental trauma, or in Fuch’s dystrophy.” Under ICD-10 Codes That Support Medical Necessity - deleted ICD-10 unspecified eye codes: H40.1190, H40.1191, H40.1192, H40.1193, H40.1194, H40.1290, H40.1291, H40.1292, H40.1293, H40.1294, H40.1390, H40.1391, H40.1392, H40.1393, H40.1394, H40.159, H40.249, H40.60X0 This LCD revision is not more restrictive, as these ICD-10 codes are for unspecified eye. ICD-10 codes are included in the LCD for billing a diagnosis related to the specific eye involved, i.e. right eye, left eye, bilateral eyes.	<ul style="list-style-type: none"> Provider Education/Guidance
03/16/2017	R7	Under CMS National Coverage Policy revised the verbiage for Title XVIII of the Social Security Act, §1862(a)(1)A) to read “allows coverage and payment for only those services that are considered to be reasonable and necessary for the diagnosis or treatment of illness or injury or to improve the functioning of a malformed body member” and revised the verbiage for Title XVIII of the Social Security Act, §1862(a)(7) to read “states Medicare will not cover any services or procedures associated with routine physical checkups”. Under Coverage Indications, Limitations and/or Medical Necessity- Other Comments second paragraph defined CORFs acronym “Comprehensive Outpatient Rehabilitation Facility”.	<ul style="list-style-type: none"> Provider Education/Guidance
10/01/2016	R6	Under ICD-10 Codes That Support Medical Necessity: Group 1 added ICD-10 codes H40.1110, H40.1111, H40.1112, H40.1113, H40.1114, H40.1120, H40.1121, H40.1122, H40.1123, H40.1124, H40.1130, H40.1131, H40.1132, H40.1133, H40.1134, H40.1190, H40.1191, H40.1192, H40.1193, and H40.1194. Under ICD-10 Codes	<ul style="list-style-type: none"> Provider Education/Guidance Revisions Due To ICD-10-CM Code Changes

REVISION HISTORY DATE	REVISION HISTORY NUMBER	REVISION HISTORY EXPLANATION	REASON(S) FOR CHANGE
		That Support Medical Necessity: Group 1 deleted ICD-10 codes H40.11X0, H40.11X1, H40.11X2, H40.11X3, and H40.11X4. This revision is due to the Annual ICD-10 Code Update.	
03/10/2016	R5	Under CMS National Coverage Policy punctuation was corrected, the title and sections cited for 42 CFR 411.15 were corrected and 42 CFR 416.65 and CMS Internet-Only Manuals, Pub 100-04, Medicare Claims Processing Manual, Chapter 12, §§40.6 and 40.7 were deleted. Under Coverage Indications, Limitations and/or Medical Necessity- Indications and Limitations revised the first paragraph for clarification. In the second paragraph added "s" to ophthalmologist. Under Coverage Indications, Limitations and/or Medical Necessity -Other Comments deleted "for" in the second sentence of the second paragraph and corrected the cited section for SSA §1861 (s)(K). Under Associated Information-Documentation Requirements revised "his" to read "the" in the last sentence of the second paragraph. Under Associated Information-Utilization Guidelines added "...that the..." to the first sentence of the second paragraph and corrected the spelling of keratopathy. Under Sources of Information and Basis for Decision all citations were placed in the AMA Citation format, supplement numbers were added, author names and journal titles were corrected, and the following citation was deleted as it was redundant: Venturea AC, Bohnke M, Mojon DS.et al. Central Corneal Thickness Measurements in Patients with Normal Tension Glaucoma, Primary Open Angle Glaucoma, Pseudoexfoliation Glaucoma, or Ocular Hypertension. Br J Ophthalmol. 2001; 85(7):792-5.	<ul style="list-style-type: none"> • Provider Education/Guidance • Other
10/01/2015	R4	Under ICD-10 Codes that Support Medical Necessity added the following ICD-10 codes: T85.318A, T85.318D, T85.318S, T85.328A, T85.328D, T85.328S, and Z94.7.	<ul style="list-style-type: none"> • Provider Education/Guidance • Automated Edits to Enforce Reasonable & Necessary Requirements
10/01/2015	R3	Per CMS Internet-Only Manual, Pub 100-08, Medicare Program Integrity Manual, Chapter 13, §13.1.3 LCDs consist of only "reasonable and necessary" information. All bill type and revenue codes have been removed.	<ul style="list-style-type: none"> • Other (Bill type and/or revenue code removal)

REVISION HISTORY DATE	REVISION HISTORY NUMBER	REVISION HISTORY EXPLANATION	REASON(S) FOR CHANGE
10/01/2015	R2	Under Sources of Information and Bases for Decision placed bibliography in AMA format with the addition of authors names and removal of one author's name from bibliography (Gordon M, Beiser JA, Brandt JD, Heuer DK, Higginbotham EJ, Johnson CA, et al. The Ocular Hypertension Treatment Study; Baseline Factors that Predict the Onset of Primary Open-Angle Glaucoma. <i>Arch Ophthalmol.</i> 2002; 120(6):714-20).	<ul style="list-style-type: none"> Provider Education/Guidance
10/01/2015	R1	Added ICD-10 codes H40.1411-H40.1414, H40.1421-H40.1424, H40.1431-H40.1434, and H40.159 to the ICD-10 Codes That Support Medical Necessity .	<ul style="list-style-type: none"> Provider Education/Guidance Public Education/Guidance Revisions Due To ICD-10-CM Code Changes

Associated Documents

Attachments

N/A

Related Local Coverage Documents

Article(s)

A56611 - Billing and Coding: Corneal Pachymetry

Related National Coverage Documents

N/A

Public Version(s)

Updated on 06/10/2020 with effective dates 06/18/2020 - N/A

Updated on 10/04/2019 with effective dates 10/10/2019 - 06/17/2020

Updated on 05/31/2019 with effective dates 06/06/2019 - 10/09/2019

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Keywords

- Corneal Pachymetry