

Coronary CT Angiography, Fractional Flow Reserve with CT, Calcium Scoring



INDEPENDENT CARE HEALTH PLAN

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Medicare Advantage Medical Coverage Policy

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Disclaimer

The Coverage Summaries are reviewed by the iCare Medicare Utilization Management Committee. Policies in this document may be modified by a member's coverage document. Clinical policy is not intended to preempt the judgment of the reviewing medical director or dictate to health care providers how to practice medicine. Health care providers are expected to exercise their medical judgment in rendering appropriate care. Identification of selected brand names of devices, tests and procedures in a medical coverage policy is for reference only and is not an endorsement of any one device, test, or procedure over another. Clinical technology is constantly evolving, and we reserve the right to review and update this policy periodically. References to CPT® codes or other sources are for definitional purposes only and do not imply any right to reimbursement or guarantee of claims payment. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any shape or form or by any means, electronic, mechanical, photocopying or otherwise, without permission from iCare.

Related Medicare Advantage Medical/Pharmacy Coverage Policies

None

Related Documents

Please refer to [CMS website](#) for the most current applicable CMS Online Manual System (IOMs)/National Coverage Determination (NCD)/ Local Coverage Determination (LCD)/Local Coverage Article (LCA)/ Transmittals.

Type	Title	ID Number	Jurisdiction Medicare Administrative	Applicable States/Territories
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Coronary CT Angiography, Fractional Flow Reserve with CT, Calcium Scoring

			Contractors (MACs)	
NCD	Computed Tomography	220.1		
LCD LCA	Coronary Computed Tomography Angiography (CCTA)	L35121 A57552	J5 - Wisconsin Physicians Service Insurance Corporation J8 - Wisconsin Physicians Service Insurance Corporation	IA, KS, MO, NE IN, MI
LCD LCA	Category III Codes	L35490 A56902	J5 - Wisconsin Physicians Service Insurance Corporation J8 - Wisconsin Physicians Service Insurance Corporation	IA, KS, MO, NE IN, MI
LCD LCA	Non-Invasive Fractional Flow Reserve (FFR) for Ischemic Heart Disease	L38839 A58473	J5 - Wisconsin Physicians Service Insurance Corporation J8 - Wisconsin Physicians Service Insurance Corporation	IA, KS, MO, NE IN, MI
LCD LCA	Non-Invasive Fractional Flow Reserve (FFR) for Ischemic Heart Disease	L39075 A58814	J6 - National Government Services, Inc. (Part A/B MAC) JK - National Government Services, Inc. (Part A/B MAC)	IL, MN, WI CT, NY, ME, MA, NH, RI, VT
LCD LCA	Cardiac Computed Tomography (CCT) and Coronary Computed	L33559 A56737	J6 - National Government Services, Inc. (Part A/B MAC)	IL, MN, WI

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	Tomography Angiography (CCTA)		JK - National Government Services, Inc. (Part A/B MAC)	CT, NY, ME, MA, NH, RI, VT
LCD LCA	Cardiovascular Nuclear Medicine	L33560 A56743	J6 - National Government Services, Inc. (Part A/B MAC) JK - National Government Services, Inc. (Part A/B MAC)	IL, MN, WI CT, NY, ME, MA, NH, RI, VT
LCD LCA	Cardiac Computed Tomography (CCT) and Coronary Computed Tomography Angiography (CCTA)	L33947 A56451	J15 - CGS Administrators, LLC (Part A/B MAC)	KY, OH
LCD LCA	Cardiovascular Nuclear Medicine	L33960 A56494	J15 - CGS Administrators, LLC (Part A/B MAC)	KY, OH
LCD LCA	Non-Invasive Fractional Flow Reserve (FFR) for Ischemic Heart Disease	L38771 A58359	J15 - CGS Administrators, LLC (Part A/B MAC)	KY, OH
LCD LCA	Non-Invasive Fractional Flow Reserve (FFR) for Ischemic Heart Disease	L38613 A58095	JE - Noridian Healthcare Solutions, LLC	CA, HI, NV, American Samoa, Guam, Northern Mariana Islands
LCD LCA	Non-Invasive Fractional Flow Reserve (FFR) for Ischemic Heart Disease	L38615 A58097	JF - Noridian Healthcare Solutions, LLC	AK, AZ, ID, MT, ND, OR, SD, UT, WA, WY
LCD LCA	Cardiology Non-emergent Outpatient Stress Testing	L35083 A56423	JH - Novitas Solutions, Inc. (Part A/B MAC) JL - Novitas Solutions, Inc. (Part A/B MAC)	AR, CO, NM, OK, TX, LA, MS DE, D.C., MD, NJ, PA
LCD LCA	Cardiac Computed Tomography and Angiography (CCTA)	L33423 A56691	JJ - Palmetto GBA (Part A/B MAC) JM - Palmetto GBA (Part A/B MAC)	AL, GA, TN NC, SC, VA, WV

LCD LCA	Non-Invasive Fractional Flow Reserve (FFR) for Stable Ischemic Heart Disease	L38278 A58406	JJ - Palmetto GBA (Part A/B MAC) JM - Palmetto GBA (Part A/B MAC)	AL, GA, TN NC, SC, VA, WV
LCD LCA	Cardiology Non-emergent Outpatient Stress Testing	L38936 A56952	JN – First Coast Service Options, Inc. (Part A/B MAC)	FL, PR, U.S. VI

Description

Coronary computed tomography angiography (CCTA) is a noninvasive imaging modality designed to be an alternative to invasive cardiac angiography (cardiac catheterization) for diagnosing coronary artery disease (CAD) by visualizing the blood flow in the coronary arteries. Other uses for CCTA include, but may not be limited to, assessment of congenital coronary anomalies, thoracic aortic disease and valvular heart disease.

Fractional flow reserve (FFR) is a physiologic indicator used to identify significantly restricted coronary artery blood flow in an individual with known or suspected CAD. **FFR with computed tomography (FFR_{CT})** uses simulated pressure, velocity and blood flow information generated from static CCTA images to determine the fraction of maximal coronary blood flow that can be achieved in a restricted artery. The HeartFlow FFR_{CT} Analysis is an example of a Food & Drug Administration (FDA) approved software device that obtains the FFR_{CT} noninvasively from previously acquired CCTA image data to create three-dimensional (3D) images of the coronary arteries. FFR_{CT} is intended as a first line testing alternative to invasive FFR measurement with a pressure catheter. Analysis results assist cardiologists in determining the individual's need for intervention such as angioplasty or stent placement.

Coronary artery calcium (CAC) scoring is a noninvasive test that has been reported to detect the presence of subclinical CAD by measuring the extent and characterization of calcium in the coronary arteries. The presence of CAC reportedly correlates with the extent of atherosclerotic plaque as well as the severity of CAD. Tests to determine CAC scoring include:

- Electron beam computed tomography (EBCT), also known as ultrafast computed tomography (UFCT)
- Multi-slice computed tomography (CT) for CAC scoring
- Quantitative CT tissue characterization using post-processing software (eg, HealthCCSng)

Automated quantification of CCTA images using artificial intelligence (AI)-based software applications (eg, Cleerly, HeartFlow Plaque Analysis) to characterize coronary atherosclerotic plaque is reported to determine the severity of coronary disease. The software application purportedly reduces evaluation time and optimizes treatment planning.

Noninvasive arterial plaque analysis is performed using an image analysis software system (eg, ElucidVivo) to evaluate multidimensional digital CTA images of arterial vessels. The image analysis reportedly aids

clinicians in characterizing arterial plaque morphology (geometry and tissue composition) to assist with diagnosis and treatment planning.

The HeartFlow Planner and HeartFlow RoadMap are **adjunctive testing** software applications used to evaluate coronary artery anatomy. The HeartFlow Planner utilizes a coronary anatomy model and physiology simulation created from the HeartFlow FFR_{CT} Analysis. The physician is purportedly able to identify stenoses and virtually modify the vessel. For each treatment scenario, HeartFlow Planner will display the modified FFR_{CT} values in real time to enable the physician to understand the impact of the modeled treatment strategy. Common scenarios for using HeartFlow Planner include focal stenoses, serial stenoses, and borderline cases. The HeartFlow RoadMap is a recently FDA-approved AI-powered software product that purportedly enables visualization and quantification of the location and severity of coronary artery stenosis on CCTA.

Coverage Determination

iCare follows the CMS requirements that only allows coverage and payment for services that are reasonable and necessary for the diagnosis and treatment of illness or injury or to improve the functioning of a malformed body member except as specifically allowed by Medicare.

Please refer to the above CMS guidance for **coronary CT angiography, fractional flow reserve with CT and calcium scoring**.

In interpreting or supplementing the criteria above and in order to determine medical necessity consistently, iCare may consider the following criteria.

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The use of the criteria in this Medicare Advantage Medical Coverage Policy provides clinical benefits highly likely to outweigh any clinical harms. Services that do not meet the criteria above are not medically necessary and thus do not provide a clinical benefit. Medically unnecessary services carry risks of adverse outcomes and may interfere with the pursuit of other treatments which have demonstrated efficacy.

Coverage Limitations

[US Government Publishing Office. Electronic code of federal regulations: part 411 – 42 CFR § 411.15 - Particular services excluded from coverage](#)

Coding Information

Any codes listed on this policy are for informational purposes only. Do not rely on the accuracy and inclusion of specific codes. Inclusion of a code does not guarantee coverage and/or reimbursement for a service or procedure.

Coronary CT Angiography, Fractional Flow Reserve with CT, Calcium Scoring

CPT® Code(s)	Description	Comments
75571	Computed tomography, heart, without contrast material, with quantitative evaluation of coronary calcium	
75572	Computed tomography, heart, with contrast material, for evaluation of cardiac structure and morphology (including 3D image postprocessing, assessment of cardiac function, and evaluation of venous structures, if performed)	
75573	Computed tomography, heart, with contrast material, for evaluation of cardiac structure and morphology in the setting of congenital heart disease (including 3D image postprocessing, assessment of left ventricular [LV] cardiac function, right ventricular [RV] structure and function and evaluation of vascular structures, if performed)	
75574	Computed tomographic angiography, heart, coronary arteries and bypass grafts (when present), with contrast material, including 3D image postprocessing (including evaluation of cardiac structure and morphology, assessment of cardiac function, and evaluation of venous structures, if performed)	
75580	Noninvasive estimate of coronary fractional flow reserve (FFR) derived from augmentative software analysis of the data set from a coronary computed tomography angiography, with interpretation and report by a physician or other qualified health care professional	
93799	Unlisted cardiovascular service or procedure	
CPT® Category III Code(s)	Description	Comments
0501T	Noninvasive estimated coronary fractional flow reserve (FFR) derived from coronary computed tomography angiography data using computation fluid dynamics physiologic simulation software analysis of functional data to assess the severity of coronary artery disease; data preparation and transmission, analysis of fluid dynamics and simulated maximal coronary hyperemia, generation of estimated FFR model, with anatomical data review in comparison with estimated FFR model to reconcile discordant data, interpretation and report	
0502T	Noninvasive estimated coronary fractional flow reserve (FFR) derived from coronary computed tomography angiography data using computation fluid dynamics physiologic simulation software analysis of functional data to assess the severity of coronary artery disease; data preparation and transmission	

0503T	Noninvasive estimated coronary fractional flow reserve (FFR) derived from coronary computed tomography angiography data using computation fluid dynamics physiologic simulation software analysis of functional data to assess the severity of coronary artery disease; analysis of fluid dynamics and simulated maximal coronary hyperemia, and generation of estimated FFR model	
0504T	Noninvasive estimated coronary fractional flow reserve (FFR) derived from coronary computed tomography angiography data using computation fluid dynamics physiologic simulation software analysis of functional data to assess the severity of coronary artery disease; anatomical data review in comparison with estimated FFR model to reconcile discordant data, interpretation and report	
0523T	Intraprocedural coronary fractional flow reserve (FFR) with 3D functional mapping of color-coded FFR values for the coronary tree, derived from coronary angiogram data, for real-time review and interpretation of possible atherosclerotic stenosis(es) intervention (List separately in addition to code for primary procedure)	
0623T	Automated quantification and characterization of coronary atherosclerotic plaque to assess severity of coronary disease, using data from coronary computed tomographic angiography; data preparation and transmission, computerized analysis of data, with review of computerized analysis output to reconcile discordant data, interpretation and report	
0624T	Automated quantification and characterization of coronary atherosclerotic plaque to assess severity of coronary disease, using data from coronary computed tomographic angiography; data preparation and transmission	
0625T	Automated quantification and characterization of coronary atherosclerotic plaque to assess severity of coronary disease, using data from coronary computed tomographic angiography; computerized analysis of data from coronary computed tomographic angiography	
0626T	Automated quantification and characterization of coronary atherosclerotic plaque to assess severity of coronary disease, using data from coronary computed tomographic angiography; review of computerized analysis output to reconcile discordant data, interpretation and report	

0710T	Noninvasive arterial plaque analysis using software processing of data from non-coronary computerized tomography angiography; including data preparation and transmission, quantification of the structure and composition of the vessel wall and assessment for lipid-rich necrotic core plaque to assess atherosclerotic plaque stability, data review, interpretation and report	
0711T	Noninvasive arterial plaque analysis using software processing of data from non-coronary computerized tomography angiography; data preparation and transmission	
0712T	Noninvasive arterial plaque analysis using software processing of data from non-coronary computerized tomography angiography; quantification of the structure and composition of the vessel wall and assessment for lipid-rich necrotic core plaque to assess atherosclerotic plaque stability	
0713T	Noninvasive arterial plaque analysis using software processing of data from non-coronary computerized tomography angiography; data review, interpretation and report	
0721T	Quantitative computed tomography (CT) tissue characterization, including interpretation and report, obtained without concurrent CT examination of any structure contained in previously acquired diagnostic imaging	
0722T	Quantitative computed tomography (CT) tissue characterization, including interpretation and report, obtained with concurrent CT examination of any structure contained in the concurrently acquired diagnostic imaging dataset (List separately in addition to code for primary procedure)	
HCPCS Code(s)	Description	Comments
No code(s) identified		

References

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- Centers for Medicare & Medicaid Services (CMS). Local Coverage Determination (LCD). Cardiac computed tomography (CCT) and coronary computed tomography angiography (CCTA) (L33559). <https://www.cms.gov>. Published October 1, 2015. Revised April 1, 2022. Accessed November 2, 2023.

3. Centers for Medicare & Medicaid Services (CMS). Local Coverage Determination (LCD). Cardiac computed tomography (CCT) and coronary computed tomography angiography (CCTA) (L33947). <https://www.cms.gov>. Published October 1, 2015. Revised October 5, 2023. Accessed November 2, 2023.
4. Centers for Medicare & Medicaid Services (CMS). Local Coverage Determination (LCD). Cardiology non-emergent outpatient stress testing (L35083). <https://www.cms.gov>. Published October 1, 2015. Revised April 25, 2021. Accessed November 2, 2023.
5. Centers for Medicare & Medicaid Services (CMS). Local Coverage Determination (LCD). Cardiology non-emergent outpatient stress testing (L38396). <https://www.cms.gov>. Published March 15, 2020. Revised April 25, 2021. Accessed November 2, 2023.
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8. Centers for Medicare & Medicaid Services (CMS). Local Coverage Determination (LCD). Category III codes (L35490). <https://www.cms.gov>. Published October 1, 2015. Revised April 27, 2023. Accessed November 2, 2023.
9. Centers for Medicare & Medicaid Services (CMS). Local Coverage Determination (LCD). Coronary computed tomography angiography (CCTA) (L35121). <https://www.cms.gov>. Published October 1, 2015. Revised October 28, 2021. Accessed November 2, 2023.
10. Centers for Medicare & Medicaid Services (CMS). Local Coverage Determination (LCD). Non-invasive fractional flow reserve (FFR) for ischemic heart disease (L38613). <https://www.cms.gov>. Published April 26, 2021. Revised September 18, 2022. Accessed November 2, 2023.
11. Centers for Medicare & Medicaid Services (CMS). Local Coverage Determination (LCD). Non-invasive fractional flow reserve (FFR) for ischemic heart disease (L38615). <https://www.cms.gov>. Published April 26, 2021. Revised September 18, 2022. Accessed November 2, 2023.
12. Centers for Medicare & Medicaid Services (CMS). Local Coverage Determination (LCD). Non-invasive fractional flow reserve (FFR) for ischemic heart disease (L38771). <https://www.cms.gov>. Published April 25, 2021. Revised September 7, 2023. Accessed November 2, 2023.
13. Centers for Medicare & Medicaid Services (CMS). Local Coverage Determination (LCD). Non-invasive fractional flow reserve (FFR) for ischemic heart disease (L38839). <https://www.cms.gov>. Published April 25, 2021. Revised August 14, 2022. Accessed November 2, 2023.

14. Centers for Medicare & Medicaid Services (CMS). Local Coverage Determination (LCD). Non-invasive fractional flow reserve (FFR) for ischemic heart disease (L39075). <https://www.cms.gov>. Published April 1, 2022. Revised April 1, 2023. Accessed November 2, 2023.
15. Centers for Medicare & Medicaid Services (CMS). Local Coverage Determination (LCD). Non-invasive fractional flow reserve (FFR) for stable ischemic heart disease (L38278). <https://www.cms.gov>. Published November 22, 2020. Revised August 14, 2022. Accessed November 2, 2023.
16. Centers for Medicare & Medicaid Services (CMS). National Coverage Determination (NCD). Computed tomography (220.1). <https://www.cms.gov>. Published March 12, 2008. Accessed November 2, 2023.

Change Summary

- 01/01/2024 New Policy.
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