

Fractional Flow Reserve RAD-005

Iowa Medicaid Program:	Prior Authorization	Effective Date:	4/1/2024
Revision Number:	1	Last Rev Date:	7/19/2024
Reviewed By:	Medicaid Medical Director	Next Rev Date:	7/18/2025
Approved By:	Medicaid Clinical Advisory Committee	Approved Date:	7/19/2024

Descriptive Narrative

Noninvasive fractional flow reserve deduced from computed tomography (FFR-CT) involves computer-assisted processing of coronary computed tomography angiography (CCTA) images to estimate changes in blood pressure inside coronary arteries that have partial blockages, with the goal of determining how severely the blockages impede blood flow to the heart. FFR-CT is a post-processing software for the clinical quantitative and qualitative analysis of previously acquired computed tomography data for clinically stable symptomatic patients with coronary artery disease (CAD). FFR-CT analysis is intended to support the functional evaluation of CAD. The results of this analysis are provided to aid clinicians in the evaluation and assessment of coronary arteries and to direct safe discharge or the need for further invasive procedures.

Criteria

Prior authorization is required.

FFR-CT is medically necessary when **ALL** the following are met:

1. Member has symptoms consistent with myocardial ischemia; **AND**
2. CCTA has been performed in the preceding 90 days; **AND**
3. Presence of at least one intermediate stenosis (measuring between 40% and 90%) in the proximal or middle segment of a major native coronary artery or names branch noted on CCTA; **AND**
4. Persistent symptoms despite maximal guideline-directed medical therapy (GDMT).

Contraindications

FFR-CT is **NOT** medically necessary or contraindicated for any of the following conditions:

- Recent myocardial infarction (MI) within the past 30 days;
- Prior coronary artery bypass graft surgery;
- Complex congenital heart disease or ventricular septal defect with pulmonary-to-systemic flow ratio >1.4;
- Intracoronary metallic stents;

- Coronary lesions with a vessel diameter <1.8 mm;
- Severe wall motion abnormality on CCTA results;
- Severe myocardial hypertrophy;
- High risk indicators on stress test;
- Coronary angiography within the past 90 days;
- Marginal quality of the submitted imaging data due to motion, blooming, misalignment, or arrhythmia;
- Artifacts (heavy calcium) or body habitus (BMI >35) that could interfere with the examination, the suitability for FFR-CT is at the discretion of the vendor who provides the FFR-CT service;
- Known ischemic coronary artery disease that has not been revascularized and there has been no change in member status or in the CCTA images;
- Presence of a prosthetic valve;
- Suspicion of acute coronary syndrome (where MI or unstable angina have not been ruled out);
- Previous heart transplantation;
- Prior pacemaker or defibrillator lead placement.

Coding

The following list of codes is provided for reference purposes only and may not be all inclusive. The inclusion of a code does not imply any right to reimbursement or guarantee claim payment, nor does the exclusion of a code imply that its association to the HCPCS/CPT code is inappropriate.

HCPCS	Description
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.

Compliance

1. Should conflict exist between this policy and applicable statute, the applicable statute shall supersede.
2. Federal and State law, as well as contract language, including definitions and specific contract provisions or exclusions, take precedence over medical policy and must be considered first in determining eligibility for coverage.
3. Medical technology is constantly evolving, and Iowa Medicaid reserves the right to review and update medical policy on an annual and as-needed basis.

Medical necessity guidelines have been developed for determining coverage for member benefits and are published to provide a better understanding of the basis upon which coverage decisions are made. They include concise clinical coverage criteria based on current literature review, consultation with practicing physicians in the service area who are medical experts in the particular field, FDA and other government agency policies, and standards adopted by

national accreditation organizations. Criteria are revised and updated annually, or more frequently if new evidence becomes available that suggests needed revisions.

References

EncoderPro.

Billing and Coding: Non-Invasive Fractional Flow Reserve (FFR) for ischemic heart disease. LCD Reference Article ID A58097. Revision effective date: January 1, 2024.

Fractional Flow Reserve CT Guideline. Number: NIA_CG_062-1. National Imaging Associated, Inc. Implementation date January 2024 (ITC).

Noninvasive Computed Fractional Flow Reserve from Computed Tomography (FFRCT) for Diagnosis of Coronary Artery Disease. Hayes Review Health Technology Assessment December 11, 2020.

Bohn F. Mogensen B. Engstrom T. et. al. FFR-Guided Complete or Culprit-Only PCE in Patients with Myocardial Infarction. NEJM. April 8, 2024.

Soman P. Truong QA. Udelson JE. Noninvasive Testing and Imaging for Diagnosis in Patients at Low to Intermediate Risk for Acute Coronary Syndrome. UpToDate. Literature review current through April 2024.

Chinnaiyan KM. Safian RD. Gallagher ML. et al. Clinical Use of CT-Derived Fractional Flow Reserve in the Emergency Department. JACC Cardiovasc Imaging 2020; 13:452.

Hollander JE. Gatsonis C. Greco EM. et al. Coronary Computed Tomography Angiography Versus Traditional Care: Comparison of One-Year Outcomes and Resource Use. Ann Emerg Med 2016; 67:460.

Company website: <https://www.heartflow.com/heartflow-ffrct-analysis/>.

Development of utilization management criteria may also involve research into other state Medicaid programs, other payer policies, consultation with experts and review by the Medicaid Clinical Advisory Committee (CAC). These sources may not be referenced individually unless they are specifically published and are otherwise applicable to the criteria at issue.

Criteria Change History

Change Date	Changed By	Description of Change	Version
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7/19/2024	CAC	Policy implementation.	1
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Signature

William (Bill) Jagiello, DO

