

MEDICAL POLICY STATEMENT	
Michigan Health Link	
Policy Name & Number	Date Effective
Fraction Flow Reserve from computer tomography (FFRct)- MI Health Link-MM-1558	01/01/2025
Policy Type	
MEDICAL	

Medical Policy Statement prepared by CareSource and its affiliates are derived from literature based on and supported by clinical guidelines, nationally recognized utilization and technology assessment guidelines, other medical management industry standards, and published MCO clinical policy guidelines. Medically necessary services include, but are not limited to, those health care services or supplies that are proper and necessary for the diagnosis or treatment of disease, illness, or injury and without which the patient can be expected to suffer prolonged, increased or new morbidity, impairment of function, dysfunction of a body organ or part, or significant pain and discomfort. These services meet the standards of good medical practice in the local area, are the lowest cost alternative, and are not provided mainly for the convenience of the member or provider. Medically necessary services also include those services defined in any Evidence of Coverage documents, Medical Policy Statements, Provider Manuals, Member Handbooks, and/or other policies and procedures.

Medical Policy Statements prepared by CareSource and its affiliates do not ensure an authorization or payment of services. Please refer to the plan contract (often referred to as the Evidence of Coverage) for the service(s) referenced in the Medical Policy Statement. If there is a conflict between the Medical Policy Statement and the plan contract (i.e., Evidence of Coverage), then the plan contract (i.e., Evidence of Coverage) will be the controlling document used to make the determination. According to the rules of Mental Health Parity Addiction Equity Act (MHPAEA), coverage for the diagnosis and treatment of a behavioral health disorder will not be subject to any limitations that are less favorable than the limitations that apply to medical conditions as covered under this policy.

Table of Contents

A. Subject	2
B. Background	2
C. Definitions.....	2
D. Policy	2
E. Conditions of Coverage	3
F. Related Policies/Rules	3
G. Review/Revision History	3
H. References	3

A. Subject

Fraction Flow Reserve from Computer Tomography (FFRct)

B. Background

Heart disease, with coronary artery disease (CAD) being the most common, is the leading cause of death for men and women. The traditional test in management of coronary artery stenosis is a procedure where the fractional flow reserve measures the blood pressure to determine adequate blood flow or blockage during an invasive coronary angiography.

A noninvasive alternative for stable symptomatic members with CAD is Heartflow Fraction Flow Reserve from Computer Tomography (FFRct), in which a digital 3-D model of the heart arteries is created to assist in determining restricted blood flow. Heartflow FFRct is intended to be used in conjunction with clinical history, symptoms, diagnostic tests, and the clinician's professional judgement.

C. Definitions

- **FFRct** – A mathematically derived quantity computed from simulated pressure, velocity, and blood flow information that was obtained from a 3D computer model derived from a coronary CT image.
- **Heartflow FFRct** – Post-processing software for the clinical quantitative and qualitative analysis of previously acquired computed tomography.

D. Policy

I. FFRct technology may be considered reasonable and necessary in the management of patients with symptomatic, stable ischemic heart disease (SIHD). For example, a member with stable angina pectoris would be a candidate for this procedure, but a member with unstable angina would not.

II. Procedure limitations

The safety and effectiveness of FFRct has not been evaluated for the following populations:

- A. Suspicion of acute coronary syndrome (where acute myocardial infarction or unstable angina have not been ruled out)
- B. Recent prior myocardial infarction within 30 days
- C. Complex congenital heart disease
- D. Prior coronary artery bypass graft (CABG) surgery
- E. Patients with a body mass index >35
- F. Patients who require emergent procedures or have any evidence of ongoing or active clinical instability, including acute chest pain (sudden onset), cardiogenic shock, unstable blood pressure with systolic blood pressure <90 mmHg, severe congestive heart failure (New York Heart Association [NYHA] III or IV) or acute pulmonary edema.

E. Conditions of Coverage
NA

F. Related Policies/Rules
NA

G. Review/Revision History

	DATE	ACTION
Date Issued	12/13/2023	New Policy. Approved at Committee.
Date Revised	03/27/2024 10/09/2024	Updated references. Approved at Committee. Updated referenced. Approved at Committee.
Date Effective	01/01/2025	
Date Archived		

H. References

1. Budde R, Nous F, Roest S, et al. Non-Invasive Functional Coronary Artery Evaluation by CT-Derived Fractional Flow Reserve (FFRct) in Heart Transplant Patients. *J Heart Lung Transplant*. 2020;39(4S):S62. doi:10.1016/j.healun.2020.01.1259
2. Cardiac catheterization and angiography: ACG-A-0001. MCG, 28th ed. Updated June 27, 2023. Accessed September 30, 2024. www.careweb.careguidelines.com
3. Centers for Disease Control. Heart Disease Facts. June 22, 2020. Accessed September 30, 2024. www.cdc.gov
4. ECRI. FFRct Software (HeartFlow, Inc.) for Evaluating Coronary Artery Disease. March 15, 2019. Accessed September 30, 2024. www.ecri.org
5. Food and Drug Administration. DeNovo Classification Request for FFRctv. 1.4. Accessed September 30, 2024. www.accessdata.fda.gov
6. Health Technology Assessment. Noninvasive Computed Fractional Flow Reserve from Computed Tomography for Coronary Artery Disease. January 30, 2023. Accessed September 30, 2024. www.hayesinc.com
7. Heartflow. Heartflow. Accessed June 4, 2024 .www.heartflow.com
8. Knuuti J. 2019 ESC guidelines for the diagnosis and management of chronic coronary syndromes. *European Heart Journal*. 2020;41:407-477. doi:10.1093/eurheartj/ehz425
9. Nous F, Budde RPJ, Fairbairn TA, et al. Temporal changes in FFRCT-Guided Management of Coronary Artery Disease - Lessons from the ADVANCE Registry. *J Cardiovasc Comput Tomogr*. 2021;15(1):48-55. doi:10.1016/j.jcct.2020.04.011
10. Pontone G, Guaricci AI, Palmer SC, et al. Diagnostic performance of non-invasive imaging for stable coronary artery disease: A meta-analysis. *Int J Cardiol*. 2020;300:276-281. doi:10.1016/j.ijcard.2019.10.046

Independent medical review – 12/2020

The MEDICAL Policy Statement detailed above has received due consideration as defined in the MEDICAL Policy Statement Policy and is approved.