



Cardio Policy:

Coronary Fractional Flow Reserve

POLICY NUMBER UM CARDIO_1269	SUBJECT Coronary Fractional Flow Reserve	DEPT/PROGRAM UM Dept	PAGE 1 OF 3
DATES COMMITTEE REVIEWED 05/24/16, 12/21/16, 10/11/17, 11/14/18, 03/13/19, 12/11/19, 06/10/20, 06/14/21, 11/09/21, 07/13/22	APPROVAL DATE July 13, 2022	EFFECTIVE DATE July 29, 2022	COMMITTEE APPROVAL DATES 05/24/16, 12/21/16, 10/11/17, 11/14/18, 03/13/19, 12/11/19, 06/10/20, 06/14/21, 11/09/21, 07/13/22
PRIMARY BUSINESS OWNER: UM		COMMITTEE/BOARD APPROVAL Utilization Management Committee	
URAC STANDARDS HUM v8: UM 1-2; UM 2-1	NCQA STANDARDS UM 2	ADDITIONAL AREAS OF IMPACT	
CMS REQUIREMENTS	STATE/FEDERAL REQUIREMENTS	APPLICABLE LINES OF BUSINESS Commercial, Exchange, Medicaid	

I. PURPOSE

Indications for determining medical necessity for Coronary Fractional Flow Reserve (FFR).

II. DEFINITIONS

Fractional flow reserve (FFR) is used to determine the functional significance of a coronary stenosis in angiographically “intermediate” or “indeterminant” lesions which allows the operator to decide when PCI may be beneficial or safely deferred. During coronary catheterization, a catheter is inserted into the femoral (groin) or radial arteries (wrist) using a sheath and guidewire. FFR uses a small sensor (transducer) on the tip of the wire to measure pressure, temperature, and flow in order to determine the exact severity of the lesion during maximal blood flow (hyperemia). Hyperemia is induced by injecting products such as adenosine or papaverine. A pullback of the pressure wire is performed, and pressures are recorded across the vessel. FFR is then calculated as the ratio of distal coronary pressure to aortic pressure measured during maximal hyperemia. A normal value for FFR is 1.0. FFR ≤ 0.80 in an angiographically intermediate lesion (50-70% stenosis) is considered to be a significant coronary lesion (>70% stenosis).

Appropriate Use Criteria (AUC score) for a service is one in which the expected incremental information, combined with clinical judgment, exceeds the expected negative consequences by a sufficiently wide margin for a specific indication that the procedure is generally considered acceptable care and a reasonable approach for the indication. The ultimate objective of AUC is to improve

patient care and health outcomes in a cost-effective manner but is not intended to ignore ambiguity and nuance intrinsic to clinical decision making.

Appropriate Care- Median Score 7-9

May be Appropriate Care- Median Score 4-6

Rarely Appropriate Care- Median Score 1-3

III. POLICY

Surgical procedures are reviewed and approved by Physicians and Nurses only. Utilization Management staff (pharmacists, intake coordinators or any other type of lower level medical staff) cannot review or approve surgical procedures within New Century Health.

Indications for approving a request for medical necessity are:

- A. FFR is reasonable to assess angiographic intermediate coronary lesions (50% to 70% diameter stenosis) and can be useful for guiding revascularization decisions in patients with Stable Ischemic Heart Disease. **(AUC Score 6)**^{1,2,3,4}

Limitations

- A. Requests for services that are part of a surveillance protocol for patients who are involved in a clinical trial are considered out of scope (OOS) for New Century Health and cannot be reviewed.

IV. PROCEDURE

- A. In order to review a request for medical necessity, the following items must be submitted for review:
 - 1. Progress note that prompted request
 - 2. Prior Diagnostic coronary angiogram
 - 3. Noninvasive vascular testing
- B. Primary codes appropriate for this service: FFR-93571, 93572.

V. APPROVAL AUTHORITY

- A. Review – Utilization Management Department
- B. Final Approval – Utilization Management Committee

VI. ATTACHMENTS

- A. None

VII. REFERENCES

1. Amir Lotfi, MD, et al. Expert Consensus Statement on the Use of Fractional Flow Reserve, Intravascular Ultrasound, and Optical Coherence Tomography: A Consensus Statement of the Society of Cardiovascular Angiography and Interventions. Catheterization and Cardiovascular Interventions. Oct 2013. Volume 83, Page 509-518.
2. Glen N. Levin, et al. 2011 ACCF/AHA/SCAI Guideline for Percutaneous Coronary Intervention A Report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines and the Society for Cardiovascular Angiography and Interventions. Journal of the American College of Cardiology. Dec 2011. Volume 58, No. 24, Pages e45-e122.

3. Pijls NH, et al. Fractional flow reserve versus angiography for guiding percutaneous coronary intervention in patients with multivessel coronary artery disease: 2-year follow- up of the FAME (Fractional Flow Reserve Versus Angiography for Multivessel Evaluation) study. Journal of the American College of Cardiology. July 2010. Volume 56, Issue 3, Pages 177– 84.
4. Robert C. Hendel MD, FACC, FAHA, et al. Appropriate use of cardiovascular technology: 2013 ACCF appropriate use criteria methodology update: a report of the American College of Cardiology Foundation appropriate use criteria task force. Journal of the American College of Cardiology. March 2013, Volume 61, Issue 12, Pages 1305-1317.
5. NCQA UM 2022 Standards and Elements.