New Century Health

# Cardio Policy:

# Aorta Coronary Bypass Surgery

| POLICY NUMBER<br>UM CARDIO_1096 | SUBJECT<br>Aorta Coronary Bypass Surgery | | DEPT/PROGRAM<br>UM Dept | PAGE 1 OF 4 |
|---|---|---|---|---|
| DATES COMMITTEE REVIEWED<br>04/06/11, 11/07/12, 08/22/13, 06/30/14, 08/12/15, 11/23/16, 12/21/16, 10/31/17, 05/01/18, 08/01/18, 02/21/19, 08/14/19, 12/11/19, 08/12/20, 10/14/20, 08/11/21, 10/14/21, 10/12/22, 02/01/23 | APPROVAL DATE<br>February 1, 2023 | EFFECTIVE DATE<br>February 1, 2023 | COMMITTEE APPROVAL DATES<br>04/06/11, 11/07/12, 08/22/13, 06/30/14, 08/12/15, 11/23/16, 12/21/16, 10/31/17, 05/01/18, 08/01/18, 02/21/19, 08/14/19, 12/11/19, 08/12/20, 10/14/20, 08/11/21, 10/14/21, 10/12/22, 02/01/23 | |
| PRIMARY BUSINESS OWNER: UM | | COMMITTEE/BOARD APPROVAL<br>Utilization Management Committee | | |
| URAC STANDARDS<br>HUM v8: UM 1-2; UM 2-1 | NCQA STANDARDS<br>UM 2 | | ADDITIONAL AREAS OF IMPACT | |
| CMS REQUIREMENTS | STATE/FEDERAL REQUIREMENTS | | APPLICABLE LINES OF BUSINESS<br>Commercial, Exchange, Medicaid | |

## I. PURPOSE

Indications for determining medical necessity for Aorto-coronary Bypass Surgery.

## II. DEFINITIONS

Coronary Artery Disease (CAD) is narrowing or blockage of the coronary arteries (blood vessels that carry blood and oxygen to the heart). Coronary artery disease is usually caused by atherosclerosis (a buildup of fatty material and plaque inside the coronary arteries) which may cause chest pain, shortness of breath during exercise, and heart attacks.

Coronary Arteries are mainly composed of the left and right coronary arteries, both of which give off several branches.

1. Left coronary artery (LCA): Left anterior descending artery (Branches- Diagonal, Septal), Left circumflex artery (Obtuse Marginal), Ramus Intermedius artery (5-10% population)

2. Right coronary artery (RCA): Right (Acute) marginal artery, Posterior descending artery, Postero-Lateral Ventricular branches.

Treatment of CAD involves lifestyle changes, medications and more aggressive treatments like Percutaneous Coronary Intervention or Coronary Artery Bypass Grafting (CABG). This surgical procedure for the treatment of coronary artery disease in which a saphenous vein or arterial conduit is used to build a shunt from the aorta to a coronary artery to bypass a circulatory obstruction.

SYNTAX score is an angiographic grading tool to determine the complexity of coronary artery disease. It facilitates consensus in the study of a diagnostic angiogram between surgeons and interventional cardiologists. The SYNTAX score is the sum of the points assigned to each individual lesion identified in the coronary tree with greater than 50% diameter narrowing in vessels greater than 1.5mm diameter. Low Syntax score = 0-22, Intermediate Syntax Score = 23-32, High Syntax Score greater than or equal to 33.

SYNTAX Score Algorithm includes

A. Dominance
B. Number of lesions
C. Segments involved per lesion, with lesion characteristics
D. Total occlusions with subtotal occlusions:
    1. Number of segments
    2. Age of total occlusions
    3. Blunt stumps
    4. Bridging collaterals
    5. First segment beyond occlusion visible by antegrade or retrograde filling
    6. Side branch involvement
E. Trifurcation, number of segments diseased
F. Bifurcation type and angulation
G. Aorto-ostial lesion
H. Severe tortuosity
I. Lesion length
J. Heavy calcification
K. Thrombus
L. Diffuse disease, with number of segments

An appropriate diagnostic or therapeutic procedure is one in which the expected clinical benefit exceeds the risks or negative consequences of the procedure by a sufficiently wide margin such that the procedure is

generally considered acceptable or reasonable care. 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

Maybe Appropriate Care – Median Score 4-6

Rarely Appropriate Care - Median Score1-3

Guideline directed medical therapy (GDMT) are outlined by joint American College of Cardiology (ACC)/American Heart Association (AHA) in cardiovascular clinical practice guidelines as Class I recommendation. These are maximally tolerated medications for a cardiovascular condition, when prescribed, have shown to improve healthcare outcomes such as survival along with significant reduction in major adverse cardiovascular events and hospitalization. For all recommended drug

treatment regimens, the prescriber should confirm the dosage with product insert material and carefully evaluate for contraindications and interactions[3,4,5,6,7,8,9]

## III. POLICY

**Patients need to be on maximally tolerated GDMT for CAD.**

**Indications for Aorto-coronary Bypass Surgery (CABG) are as follows:**

A. Isolated left main stenosis. **(AUC Score 9)[1,2]**

B. Patient with 3-vessel disease with or without proximal LAD artery disease **(AUC Score 8)[1,2]**

C. Patients with complex 3-vessel CAD (e.g., SYNTAX greater than 22) who are good candidates for CABG **(AUC Score 9)[1,2]**

D. Patient with three-vessel CAD with low CAD burden (i.e., 3 focal stenosis, low SYNTAX score), Class III angina and / or evidence of intermediate to high risk findings on non-invasive testing. **(AUC Score 9)[1,2]**

E. Patient with 2-vessel CAD with proximal LAD stenosis, Class III angina and/or evidence of intermediate to high risk findings on non- invasive testing. **(AUC Score 8)[1,2]**

F. Patient with 2-vessel CAD without proximal LAD artery disease and / or evidence of intermediate to high risk findings on non- invasive testing **(AUC Score 7)[1,2]**

G. Patients with 1-vessel proximal LAD artery disease, Class III-IV angina and/or evidence of intermediate to high risk findings on non-invasive testing **(AUC Score 7)[1,2]**

H. Patient with Left main stenosis and additional CAD with low CAD burden (i.e., 1 to 2 vessel additional involvement, low SYNTAX score), Class III angina and / or evidence of intermediate to high risk findings on non-invasive testing. **(AUC Score 9)[1,2]**

I. Patient with prior bypass surgery with native 3-vessel disease and patent LIMA to a native coronary artery with depressed LVEF, failure of multiple bypass grafts with class III angina and/or evidence of intermediate to high risk findings on non- invasive testing. **(AUC Score 7)[1,2]**

J. CABG is recommended in patients undergoing noncoronary cardiac surgery (valve or aortic aneurysm) with greater than or equal to 50% luminal diameter narrowing of the left main coronary artery or greater than or equal to 70% luminal diameter narrowing of other major coronary arteries. **(AUC Score 7)[1,2]**

**Limitations**

A. Before CABG can be performed in a patient with CAD the following must be considered: Predicted or observed lack of adequate response to maximally tolerated GDMT [3,4,5,6,7,8,9]

B. 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. To review for medical determination, the following items must be submitted for review

1. Cardiothoracic Surgeon and or Cardiologist Progress Note
2. Cardiac Catheterization report

B. Primary codes appropriate for this service are: 33508, 33510-33514, 33516-33519, 33521-33523, and 33533- 33536. 33530 - Reoperation, CABG or Valve surgery, more than 1 month after original operation

C. Place/Site of Service: Inpatient hospital (21)

## V. APPROVAL AUTHORITY

A. Review – Utilization Management Department

B. Final Approval – Utilization Management Committee

## VI. ATTACHMENTS

A. None

## VII. REFERENCES


1. Patel MR, et al. ACC/AATS/AHA/ASE/ASNC/SCAI/SCCT/STS 2017 Appropriate Use Criteria for Coronary Revascularization in Patients With Stable Ischemic Heart Disease: A Report of the American College of Cardiology Appropriate Use Criteria Task Force, American Association for Thoracic Surgery, American Heart Association, American Society of Echocardiography, American Society of Nuclear Cardiology, Society for Cardiovascular Angiography and Interventions, Society of Cardiovascular Computed Tomography, and Society of Thoracic Surgeons. Journal of the American College of Cardiology. May 2017. Volume 69, Issue 17, Pages 2212-2241.
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9. Pinho-Gomes et al. Guideline Compliance in Contemporary Coronary Revascularization Trials. JACC VOL. 71, NO. 6, 2018. FEBRUARY 13, 2018:591 –602.
10. NCQA UM 2022 Standards and Elements.