

Cardio Policy:

Renal Artery Intervention

POLICY NUMBER UM CARDIO_1294	SUBJECT Renal Artery Intervention (Angioplasty or Stent)		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, 12/21/19, 06/10/20, 06/09/21, 11/09/21, 07/13/22, 05/10/23, 12/20/23	APPROVAL DATE December 20, 2023	EFFECTIVE DATE December 22, 2023	COMMITTEE APPROVAL DATES 05/24/16, 12/21/16, 10/11/17, 11/14/18, 03/13/19, 12/21/19, 06/10/20, 06/09/21, 11/09/21, 07/13/22, 05/10/23, 12/20/23	
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 Renal Artery Intervention.

II. DEFINITIONS

Renal Artery Angioplasty is an endovascular procedure to widen narrowed or obstructed renal arteries typically to treat arterial atherosclerosis. An empty, collapsed balloon, known as a balloon catheter, is passed over a wire into the narrowed locations and then inflated to a fixed size. The balloon forces expansion of the stenosis (narrowing) within the vessel and the surrounding muscular wall, opening up the blood vessel for improved flow, and the balloon is then deflated and withdrawn. A stent may or may not be inserted at the time of ballooning to ensure the vessel remains open.

Hemodynamically significant RAS is defined as:

- A. Evidence of RAS on Renal Angiogram with 50-70% stenosis with resting mean pressure gradient >10mm HG. **OR**
- B. Evidence of RAS on Renal Angiogram with 50-70% stenosis with Systolic Hyperemic pressure gradient >20mm HG. Hyperemia is induced with intra renal bolus of papaverine 30mg or Dopamine at 50 µg/kg. **OR**
- C. Evidence of RAS on Renal Angiogram with 50-70% stenosis with Renal Fractional Flow Reserve ≤0.8. **OR**
- D. Evidence of RAS on Renal Angiogram with ≥70% stenosis.

Recent studies have not shown improved outcomes with Renal Artery Intervention when routinely performed in patients with RAS, when compared with medical therapy. Renal Artery Intervention is reserved only in limited indications.

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

May be Appropriate Care- Median Score 4-6

Rarely Appropriate Care- Median Score 1-3

III. POLICY

Indications for approving a request for medical necessity are:

Renal Artery Percutaneous Angioplasty (PTA) and/or Stent can be performed if:

- A. Cardiac Disturbance Syndromes (Flash Pulmonary Edema or acute coronary syndrome) with severe hypertension with renal artery stenosis on renal angiogram. **(AUC Score 9)^{1,2,3}**
- B. CKD Stage 4 with bilateral moderate RAS with resting mean trans-lesion gradient of ≥ 10 mm Hg with kidney size >7 cm in pole-pole length. **(AUC Score 8)^{1,2,3}**
- C. CKD Stage 4 and global renal ischemia (unilateral severe RAS with solitary kidney or bilateral severe RAS) without other explanation. **(AUC Score 6)^{1,2,3}**
- D. History of uncontrolled arterial hypertension despite being on maximal (≥ 3) tolerated medical therapy including diuretic with evidence of bilateral or solitary severe renal artery stenosis on renal angiogram. **(AUC Score 6)^{1,2,3}**
- E. New azotemia or worsening renal function after administration of an ACE inhibitor or ARB with evidence of renal artery stenosis on renal angiogram. **(AUC Score 6)^{1,2,3}**
- F. Ostial atherosclerotic RAS on renal angiogram. **(AUC Score 8)^{1,2,3}**
- G. Patients with Fibro Muscular Dysplasia with uncontrolled Hypertension despite being on optimal blood pressure control regimen or develops intolerable side effects to increasing doses of antihypertensive medications and/or worsening of renal function/ size, should undergo PTA. **(AUC Score 8)^{1,2,3}**
- H. Renal Artery Stenting in Fibromuscular Dysplasia is indicated when the pressure gradient cannot be obliterated with angioplasty alone; and when a renal artery dissection arises spontaneously or is created iatrogenically during intervention. **(AUC Score 6)^{1,2,3}**

Limitations:

- A. Advanced disease - Creatinine level greater than 3-4 mg/dL; kidney length less than 8 cm
- B. Limited life expectancy
- C. Bleeding diathesis; recent myocardial infarction (MI)
- D. Pregnancy
- E. Guideline-directed medical therapy must be indicated as having been tried and failed prior to any intervention.
- F. 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. Cardiologist note that prompted request with list of medications
 - 2. Renal Artery Duplex/Retroperitoneal duplex/MRA Renal/CTA Renal reports
 - 3. Labs-Renal Function test
- B. Primary codes appropriate for this service are: Renal Angioplasty- 37246, 37247, Renal Angioplasty with Stent 37236, 37237.

V. APPROVAL AUTHORITY

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

VI. ATTACHMENTS

- A. None

VII. REFERENCES

1. Centers for Medicare and Medicaid Services. Michigan Local Coverage Determination (LCD) (L35998). Vascular Stenting of Renal Arteries. Retrieved from <https://www.cms.gov> [Accessed December 19, 2023].
2. Klein AJ, et al. SCAI appropriate use criteria for peripheral arterial interventions: An update. Catheterization and Cardiovascular Interventions. Oct 2017. Volume 90, Issue 4, Pages E90-E110.
3. 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.
4. NCQA UM 2023 Standards and Elements.