



Cardio Policy:

Hemodialysis Access Maintenance

POLICY NUMBER UM CARDIO_1339	SUBJECT Hemodialysis Access Maintenance	DEPT/PROGRAM UM Dept	PAGE 1 OF 4
DATES COMMITTEE REVIEWED 06/30/14, 07/29/14, 02/19/15, 12/21/16, 10/11/17, 11/14/18, 03/13/19, 12/11/19, 02/12/20, 01/13/21, 11/09/21, 01/12/22	APPROVAL DATE January 12, 2022	EFFECTIVE DATE January 28, 2022	COMMITTEE APPROVAL DATES 06/30/14, 07/29/14, 02/19/15, 12/21/16, 10/11/17, 11/14/18, 03/13/19, 12/11/19, 02/12/20, 01/13/21, 11/09/21, 01/12/22
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 Hemodialysis Access Maintenance.

II. DEFINITIONS

Arteriovenous (AV) dialysis graft/fistula interventions are intended to restore and/or maintain functional patency of the AV dialysis access. These procedures encompass a number of percutaneous or open surgical procedures.

Percutaneous AV dialysis access de-clotting, maintenance, or re-establishment of appropriate and adequate flow may encompass any of the procedures listed below. These need not all be performed on every dysfunctional access, but each may, under unique circumstances, be considered reasonable and medically necessary. It will be expected that they are performed following the standards of practice and applicable guidelines (e.g. KDOQI). Fistulae which are not maturing as expected need to be evaluated with duplex before it can be treated with percutaneous interventions.

Percutaneous interventions to enhance or re-establish patency of a hemodialysis AV access have proven useful in extending the life of the access, reducing the need for open repair, reconstruction, or replacement. An invasive procedure which, when successful, enlarges a narrowed vascular lumen. Typically, a balloon-tipped catheter is introduced percutaneously into the narrowed vessel. The balloon is inflated at the site of vascular stenosis, stretching the vessel, and opening the lumen to restore adequate flow through the vessel. The balloon is removed after angioplasty.

Definitions:

- A. **Percutaneous Venous Transluminal Angioplasty:** AV shunt is artificially divided into two vessel segments- first segment is peripheral and extends from the peri-arterial anastomosis through the axillary vein (or entire cephalic vein in the case of cephalic venous outflow). The second segment includes the veins central to the axillary and cephalic veins, including the subclavian and innominate veins through the vena cava. Interventions performed in a single segment, regardless of the number of lesions treated, are considered as a single intervention.
- B. **Percutaneous Arterial Transluminal Angioplasty:** This is performed when there is a stenosis at the arterial anastomosis, extending across the anastomosis and involves the artery just proximal to and at the anastomosis as well as the outflow vessel or graft (also called as peri-anastomotic or juxta-anastomotic region)
- C. **Diagnostic Fistulogram:** A diagnostic angiography of the entire AV dialysis access circuit from the arterial anastomosis through the central vena cava is performed to identify the area or areas of narrowing or occlusion that are creating flow problems for the AV dialysis access. It is performed through an existing needle or sheath or via an injection of a vessel other than direct puncture of the AV dialysis access.
- D. Hemodialysis access maintenance may include de-clotting or re-establishment of appropriate and adequate flow via mechanical and/or pharmacologic maneuvers to promote dissolution, fragmentation and/or removal of obstructing thrombotic materials from the AV dialysis access.
- E. **Stents:** They are used to salvage a graft or fistula after all other conservative measures to re-establish patency have failed.
- F. **Open Dialysis Access Revision:** Surgical therapy for thrombosis or impaired AV dialysis access utilizes direct open access to the conduit and contiguous vessels. Residual vascular stenosis or obstructive lesions are removed and corrected using standard vascular surgical techniques. Angiography is adjunctively employed, when appropriate and medically necessary, to assess the functional integrity of afferent and efferent vessels remote from the surgical field.

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

Indications for approving a request for medical necessity are:

- A. Change in physical examination characteristics of the thrill, swollen extremity (**AUC Score 8**)^{1,2,3,4,5}

- B. Elevated venous pressures recorded during hemodialysis (static and dynamic pressures) or measured within the vascular access during a diagnostic study (static pressures). **(AUC Score 8)**^{1,2,3,4,5}
- C. Detection of decreased intra-access blood flow at dialysis or inability to puncture to perform hemodialysis which could cause inefficient dialysis. **(AUC Score 8)**^{1,2,3,4,5}
- D. Clinical parameters such as prolonged bleeding after needle withdrawal, altered physical examination characteristics of vascular access, or thrombosis. **(AUC Score 8)**^{1,2,3,4,5}
- E. Stenosis associated with thrombosis or evidence for in- flow obstruction or distal steal syndrome. **(AUC Score 8)**^{1,2,3,4,5}
- F. Autogenous fistulae that have failed to mature after 4 to 6 weeks as expected need to be evaluated and treated with percutaneous interventions. **(AUC Score 8)**^{1,2,3,4,5}
- G. Development of pseudo aneurysm(s) or superficial collateral venous channels. **(AUC Score 8)**^{1,2,3,4,5}
- H. Recirculation percentage greater than 10-15%. **(AUC Score 8)**^{1,2,3,4,5}

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 from the vascular surgeon that prompted the request
 2. All non-invasive and invasive Vascular Studies for fistula
- B. Primary codes appropriate for this service:
 - Percutaneous Therapies of AV Fistula-
 - AV Fistulogram 36901
 - AV Fistulogram with PTA of Peripheral Dialysis segment - 36902,
 - AV Fistulogram with PTA with Stent of Peripheral Dialysis segment -36903,
 - Mechanical Thrombectomy of AV Fistula- 36904,
 - Mechanical Thrombectomy and PTA of Peripheral Segment of AVFistula-36905
 - Mechanical Thrombectomy and PTA with Stent of Peripheral Segment of AVFistula- 36906
 - PTA of Central Dialysis segment – 36907
 - PTA with Stent of Central Dialysis segment – 36908
 - Embolization or Occlusion of main or accessory veins of Dialysis circuit- 36909
 - Surgical therapy for thrombosis or impaired AV dialysis access -36831, 36832,36833
 - Ligation or banding of angio access arteriovenous fistula- 37607

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. Florida. Local Coverage Determination (LCD)(L38231). Endovenous Stenting (CPT-36903, 36906, 36908). Retrieved from <https://www.cms.gov> December 27th, 2020.
2. <https://www.acr.org>. American College of Radiology (2011). Practice Parameters for Endovascular Management of the Thrombosed or Dysfunctional Dialysis. Date accessed Jan 31st 2019.
3. <https://www.acr.org>. American College of Radiology. Practice Guideline for the Performance of Diagnostic Arteriogram in Adults. Date accessed Jan 31st 2019.
4. <https://www.acr.org>. Practice Guideline for the Performance of Physiologic Evaluation of Extremity Arteries. Date accessed Jan 31st 2019.
5. Steven M. Zangan, M.D. and Abigail Falk, M.D; Optimizing Arteriovenous Fistula Maturation. Seminars in Interventional Radiology. June 2009. Volume 26, Issue 2, Pages 144-150.
6. 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.
7. NCQA UM 2022 Standards and Elements.