

04-70540-19

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Subject: Magnetic Resonance Angiography (MRA) Neck

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DESCRIPTION:

Magnetic resonance angiography (MRA) is a noninvasive imaging technology used for the evaluation and imaging of vessels in the head and neck. MRA may be performed after abnormal results are found on carotid duplex imaging. A contrast agent (gadolinium) may be used to enable visualization of a body system or body structure and may be used in individuals who have a history of contrast allergy and who are at high risk of kidney failure.

POSITION STATEMENT:

Documentation Requirements

Documentation containing the medical necessity of the magnetic resonance angiography (MRA) of the neck and imaging results (e.g., images, clinical reports) should be maintained in the member's medical record. Documentation may be requested as part of the review process.

Magnetic resonance angiography (MRA) of the neck **meets the definition of medical necessity** for the following:

For Evaluation of Known or Suspected Intracranial Vascular Disease

Cerebrovascular Disease

- Recent ischemic stroke or transient ischemic attack
- Known or suspected vertebrobasilar insufficiency (VBI) in members with symptoms such as dizziness, vertigo, headaches, diplopia, blindness, vomiting, ataxia, weakness in both sides of the body, or abnormal speech

- Asymptomatic members with an abnormal ultrasound of the neck or carotid duplex imaging (e.g., carotid stenosis \geq 70%, technically limited study, aberrant direction of flow in the carotid or vertebral arteries)
- Symptomatic members with an abnormal ultrasound of the neck or carotid duplex imaging (e.g., carotid stenosis \geq 50%, technically limited study, aberrant direction of flow in the carotid or vertebral arteries).

Aneurysm Screening

- Screening for aneurysm in Loeys-Dietz syndrome, fibromuscular dysplasia or spontaneous coronary arteries dissection (SCAD) (For Loeys-Dietz imaging should be repeated at least every two years).

Tumor/Pulsatile Mass

- Pulsatile mass on exam
- Known carotid body tumors, or other masses such as a paraganglioma, arteriovenous fistula, pseudoaneurysm, atypical lymphovascular malformation.

Other Extracranial Vascular Disease

- Takayasu arteritis based on findings in other blood vessels on previous imaging
- Giant cell arteritis with suspected extracranial involvement
- Subclavian steal syndrome when ultrasound is positive or indeterminate OR for planning an intervention
- Suspected carotid or vertebral artery dissection; due to trauma or spontaneous due to weakness of vessel wall
- Horner's syndrome (miosis, ptosis, and anhidrosis)
- For evaluation of pulsatile tinnitus (subjective or objective) for vascular etiology
- Known extracranial vascular disease that needs follow-up or further evaluation.

Pre-Operative Evaluation

Post-Operative/Procedural Evaluation (e.g., carotid endarterectomy)

- A follow-up study may be needed to help evaluate a member's progress after treatment, procedure, intervention or surgery. Documentation requires a medical reason that clearly indicates why additional imaging is needed for the type and area(s) requested.

Indications for Combination Studies

Neck MRA/Brain MRA

- Recent ischemic stroke or transient ischemic attack (TIA)

- Known or suspected vertebrobasilar insufficiency (VBI) in members with symptoms such as dizziness, vertigo, headaches, diplopia, blindness, vomiting, ataxia, weakness in both sides of the body, or abnormal speech
- Suspected carotid or vertebral artery dissection due to trauma or spontaneous due to weakness of vessel wall
- Asymptomatic members with an abnormal ultrasound of the neck or carotid duplex imaging (e.g., internal carotid stenosis > 70%, technically limited study, aberrant direction of flow in the carotid or vertebral arteries) and member is surgery or angioplasty candidate
- Symptomatic members with an abnormal ultrasound of the neck or carotid duplex imaging (e.g., carotid stenosis ≥ 50%, technically limited study, aberrant direction of flow in the carotid or vertebral arteries) and member is surgery or angioplasty candidate
- For evaluation of pulsatile tinnitus (subjective or objective) for vascular etiology.

Neck MRA/Brain MRA/Brain MRI

- Recent ischemic stroke or transient ischemic attack
- Suspected carotid or vertebral artery dissection with focal or lateralizing neurological deficits
- Approved indications as noted above and being performed in a child under 8 years of age who will need anesthesia for the procedure and there is a suspicion of concurrent vascular and intracranial pathology.

BILLING/CODING INFORMATION:

CPT Coding:

70547	Magnetic resonance angiography, neck; without contrast material(s)
70548	Magnetic resonance angiography, neck; with contrast material(s)
70549	Magnetic resonance angiography, neck; without contrast material(s), followed by contrast material(s) and further sequences

REIMBURSEMENT INFORMATION:

Refer to section entitled [POSITION STATEMENT](#).

Re-imaging or additional imaging due to poor contrast enhanced exam or technically limited exam is the responsibility of the imaging provider.

LOINC Codes:

The following information may be required documentation to support medical necessity: physician history and physical, physician progress notes, plan of treatment and reason for magnetic resonance angiography (MRA) of the neck.

Documentation Table	LOINC Codes	LOINC Time Frame Modifier Code	LOINC Time Frame Modifier Codes Narrative
Physician history and physical	28626-0	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim
Attending physician progress note	18741-9	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim
Plan of treatment	18776-5	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim
Radiology reason for study	18785-6	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim
Radiology comparison study-date and time	18779-9	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim
Radiology comparison study observation	18834-2	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim
Radiology-study observation	18782-3	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim
Radiology-impression	19005-8	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim
Radiology study-recommendation (narrative)	18783-1	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim

PROGRAM EXCEPTIONS:

Federal Employee Plan (FEP): Follow FEP guidelines.

Medicare Advantage products

The following Local Coverage Determination (LCD) was reviewed: Magnetic Resonance Angiography (MRA), (L34372) located at fcso.com.

The following National Coverage Determination (NCD) was reviewed: Magnetic Resonance Angiography, (220.3) and Magnetic Resonance Imaging (MRI), (220.2) located at cms.gov.

DEFINITIONS:

None applicable.

RELATED GUIDELINES:

[Magnetic Resonance Angiography \(MRA\) Abdomen and Pelvis, 04-70540-21](#)

[Magnetic Resonance Angiography \(MRA\) Brain \(Head\), 04-70540-18](#)

[Magnetic Resonance Angiography \(MRA\) Chest, 04-70540-20](#)

[Magnetic Resonance Angiography \(MRA\) Extremity \(Upper and Lower\), 04-70540-22](#)

[Magnetic Resonance Angiography \(MRA\) Spinal Canal, 04-70540-23](#)

OTHER:

None applicable.

REFERENCES:

1. ACR-NASCI-SPR Practice Guideline for the Performance of Cervicocerebral Magnetic Resonance Angiography (MRA), Revised 2015.
2. American College of Radiology ACR Appropriateness Criteria®: Cerebrovascular Disease, Last review date: 2016.
3. American College of Radiology ACR Appropriateness Criteria®: Head Trauma, Last review date: 2015.
4. American College of Radiology ACR Appropriateness Criteria® Suspected Spine Trauma, Last review date: 2012.
5. American College of Radiology ACR Appropriateness Criteria®: Neck Mass/Adenopathy, Last review date: 2012.
6. Arslan H, Unal O, Kutluhan A et al, Power Doppler scanning in the diagnosis of carotid body tumors. Journal of Ultrasound in Medicine 2000; 9(6):367-370.
7. Centers for Medicare & Medicaid Services. National Coverage Determination (NCD) Magnetic Resonance Angiography (220.3); accessed at cms.gov.
8. Centers for Medicare & Medicaid Services. National Coverage Determination (NCD) Magnetic Resonance Imaging (220.2); accessed at cms.gov.
9. First Coast Service Options, Inc. Local Coverage Determination (LCD) Magnetic Resonance Angiography (MRA) (L34372); accessed at fcso.com.

10. National Imaging Associates, Inc. MR Angiography Neck Clinical Guidelines,2022.
11. Van den Berg R, Verbist BM, Mertens BJ et al, Head and neck paragangliomas: improved tumor detection using contrast-enhanced 3D time-of-flight MR angiography as compared with fat-suppressed MR imaging techniques. American Journal of Neuroradiology 2004; 25(5):863- 870.
12. Potter BJ, Pinto DS. Subclavin steal syndrome. Circulation 2014; 129: 2320-2323.

COMMITTEE APPROVAL:

This Medical Coverage Guideline (MCG) was approved by the Florida Blue Medical Policy & Coverage Committee on 04/28/22.

GUIDELINE UPDATE INFORMATION:

11/15/13	New Medical Coverage Guideline.
04/15/15	Annual review. Revised description and indication for pre-operative evaluation (brain/skull). Added indications for combination studies (Neck/Brain MRA and Neck MRA/Brain MRI). Updated references.
08/15/18	Revision; revised position statement. Updated references.
03/15/20	Review/revision. Expanded criteria for: vascular disease, suspected tumor mass and neck/brain MRA. Updated references.
05/15/22	Review: Position statements and references updated.
07/01/22	Revision to Program Exceptions section.