

04-70540-19

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## Subject: Magnetic Resonance Angiography (MRA) Neck

THIS MEDICAL COVERAGE GUIDELINE IS NOT AN AUTHORIZATION, CERTIFICATION, EXPLANATION OF BENEFITS, OR A GUARANTEE OF PAYMENT, NOR DOES IT SUBSTITUTE FOR OR CONSTITUTE MEDICAL ADVICE. ALL MEDICAL DECISIONS ARE SOLELY THE RESPONSIBILITY OF THE PATIENT AND PHYSICIAN. BENEFITS ARE DETERMINED BY THE GROUP CONTRACT, MEMBER BENEFIT BOOKLET, AND/OR INDIVIDUAL SUBSCRIBER CERTIFICATE IN EFFECT AT THE TIME SERVICES WERE RENDERED. THIS MEDICAL COVERAGE GUIDELINE APPLIES TO ALL LINES OF BUSINESS UNLESS OTHERWISE NOTED IN THE PROGRAM EXCEPTIONS SECTION.

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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.

**Summary and Analysis of Evidence:** Magnetic resonance angiography (MRA) is a general term that refers to various MRA techniques used for the diagnostic evaluation, quantitative or qualitative severity assessment, and surveillance of vascular diseases of the brain, head, and neck. MRA has valuable attributes for the imaging assessment of a wide spectrum of vascular diseases. Indications for cervicocerebral MRA include, but are not limited to, the detection and evaluation of the following: steno-occlusive disease, cerebral ischemia, traumatic injury to cervicocerebral vessels, intracranial or extracranial aneurysms, acquired arteriovenous malformations, vasculitis, preoperative and/or radiation treatment planning, preprocedural and/or postprocedural evaluation, vascular anomalies in the head and neck, pulsatile dural venous sinus thrombosis and intracranial venous steno-occlusive disease (ACR–ASNR–SNIS–SPR, 2020).

### 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 indications:

### **Evaluation of known or suspected extracranial vascular disease**

#### **Cerebrovascular disease**

- Recent ischemic stroke or transient ischemic attack
- Known or suspected vertebrobasilar insufficiency (VBI) in members with symptoms
- Asymptomatic members with an abnormal ultrasound of the neck or carotid duplex imaging with the following:
  - Carotid stenosis must be at least 70%
- Symptomatic members with an abnormal ultrasound of the neck or carotid duplex imaging with the following:
  - Carotid stenosis must be at least 50%

#### **Aneurysm screening**

- Loeys-Dietz syndrome(Loeys-Dietz imaging should be repeated at least every two years)
- Fibromuscular dysplasia
- Spontaneous coronary arteries dissection (SCAD).

#### **Tumor/pulsatile mass**

#### **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
- For evaluation of pulsatile tinnitus for vascular etiology
- Known extracranial vascular disease that needs follow-up or further evaluation.

#### **Pre-operative evaluation**

#### **Post-operative/procedural evaluation**

- A follow-up study may be needed to help evaluate a member’s progress after treatment, procedure, intervention or surgery. Documentation required.

## 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 Imaging (MRI), (220.2) located at cms.gov.

## DEFINITIONS:

None applicatble.

## 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. American College of Radiology ACR Appropriateness Criteria®: Cerebrovascular Disease, Last review date: 2016.
2. American College of Radiology ACR Appropriateness Criteria®: Head Trauma, Last review date: 2015.
3. American College of Radiology ACR Appropriateness Criteria® Suspected Spine Trauma, Last review date: 2012.
4. American College of Radiology ACR Appropriateness Criteria®: Neck Mass/Adenopathy, Last review date: 2012.
5. ACR-NASCI-SPR Practice Parameter for the Performance of Cervicocerebral Magnetic Resonance Angiography (MRA), 2020.
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. 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.
8. 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 and Coverage Committee on 09/26/24.

## 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.
09/30/23	Review: position statements and references updated.
10/15/24	Review; update position statement. Updated references.