

Subject: Upper Extremity MRA (73225)		Original Effective Date: 12/13/17
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DISCLAIMER

This Molina Clinical Review (MCR) is intended to facilitate the Utilization Management process. It expresses Molina's determination as to whether certain services or supplies are medically necessary, experimental, investigational, or cosmetic for purposes of determining appropriateness of payment. The conclusion that a particular service or supply is medically necessary does not constitute a representation or warranty that this service or supply is covered (i.e., will be paid for by Molina) for a particular member. The member's benefit plan determines coverage. Each benefit plan defines which services are covered, which are excluded, and which are subject to dollar caps or other limits. Members and their providers will need to consult the member's benefit plan to determine if there are any exclusion(s) or other benefit limitations applicable to this service or supply. If there is a discrepancy between this policy and a member's plan of benefits, the benefits plan will govern. In addition, coverage may be mandated by applicable legal requirements of a State, the Federal government or CMS for Medicare and Medicaid members. CMS's Coverage Database can be found on the CMS website. The coverage directive(s) and criteria from an existing National Coverage Determination (NCD) or Local Coverage Determination (LCD) will supersede the contents of this Molina Clinical Review (MCR) document and provide the directive for all Medicare members.

DESCRIPTION OF PROCEDURE/SERVICE/PHARMACEUTICAL

Magnetic Resonance Angiography (MRA) is a non-X-ray (no ionizing radiation) imaging scan that uses a strong magnetic field and radiofrequency waves to produce detailed images of vascular structures. MRA may be performed either without or with the injection of (gadolinium) contrast material into a vein. MRA images are electronically processed to remove surrounding non-vascular anatomy, so that only the arteries or veins of interest are displayed. These vascular images can be reconstructed and rotated in different planes. MRA can sometimes replace or can be used to supplement conventional invasive catheter angiography.

RECOMMENDATIONS

Duplex ultrasonography is the study of choice for initial evaluation and surveillance for many clinical scenarios involving the vasculature of the upper extremity and should be performed prior to MRA.

Aneurysm

- For evaluation of a known or suspected aneurysm

Embolism or other occlusions

- For evaluation of suspected embolism or thrombus of the upper extremity
- For evaluation of known or suspected vasculitis (e.g. Takayasu's arteritis)

Fistula/AVM

- For evaluation of known or suspected arteriovenous malformation or fistula

Stenosis

- For evaluation of vascular compromise due to stenosis

Differentiate between vascular and nonvascular tumors

Evaluate hemorrhage or trauma

- To evaluate the source of hemorrhage or vascular compromise due to trauma

Congenital

- To evaluate congenital disorders of the blood vessels involving the upper extremity

Pre/Post Procedural

- Pre-operative/ Pre procedural evaluation when blood vessel detail is needed.
- Post-operative/Post-procedural for routine recommended follow up or for potential post-operative complications.
- A repeat study may be needed to help evaluate a patient's progress after treatment procedure intervention or surgery. The reason for the repeat study and that it will affect care must be clear.

ADDITIONAL CRITICAL INFORMATION

The above medical necessity recommendations are used to determine the best diagnostic study based on a patient's specific clinical circumstances. The recommendations were developed using evidence based studies and current accepted clinical practices. Medical necessity will be determined using a combination of these recommendations as well as the patient's individual clinical or social circumstances.

- Tests that will not change treatment plans should not be recommended.
- Same or similar tests recently completed need a specific reason for repeat imaging.

REFERENCES USED FOR DETERMINATIONS

1. Stepansky F, Hecht EM, Rivera R, et al, Dynamic MR angiography of upper extremity vascular disease: pictorial review, Radiographics,2008; Accessed at <http://radiographics.rsna.org/content/28/1/e28.full>.
2. Desjardins B, Rybicki FJ, Kim HS, et al, Expert Panel on Vascular Imaging. American College of Radiology Appropriateness Criteria – Suspected Upper Extremity Deep Vein Thrombosis. <http://www.acr.org/~media/ACR/Documents/AppCriteria/Diagnostic/SuspectedUpperExtremityDeepVeinThrombosis.pdf>.

3. Cohen JM, Weinreb JC, and Redman HC, Arteriovenous malformation of the extremities: MR Imaging, RAD, 1986; 158:475-479.
4. Rak KM, Yakes WF, Ray RL, et al, MR Imaging of symptomatic peripheral vascular malformations, AJR, 1992; 159:107-112.
5. Bezooijen R, van den Bosch HCM, Tiebeek AV et al. Peripheral arterial disease: sensitivity-encoded multiposition MR angiography compared with intraarterial angiography and conventional multiposition MR angiography. Radiology 2004; 231(1): 263-271.

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73225	MR (Magnetic Resonance Imaging) Angiography Upper Extremity (arm))
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