

CHAMPVA POLICY MANUAL

CHAPTER: 2
SECTION: 26.7
TITLE: MAGNETIC RESONANCE IMAGING (MRI)
MAGNETIC RESONANCE ANGIOGRAPHY (MRA)
MAGNETIC RESONANCE SPECTROSCOPY (MRS)

AUTHORITY: 38 CFR 17.270(a) and 17.272(a)(14)

RELATED AUTHORITY: 32 CFR 199.4(a), (b), and (c)

I. EFFECTIVE DATE

A. November 22, 1985, for MRI.

B. Effective January 30, 1990, for:

1. MRI involving gating devices, which are generally used on organs which are in motion, such as the heart or lungs, the measurement of blood flow and spectroscopy.

2. MRI with the use of surface Rheumatoid Factor (RF) coils, whether for sending or receiving RF signals, in conjunction with MRI procedures.

3. MRI for temporomandibular joint.

C. The effective date for MRIs with contrast media is dependent on the FDA approval of the contrast media and a determination by the Health Administration Center of whether the labeled or unlabeled use of the contrast media is medically necessary and a proven indication. The effective date in this case would be retroactive to the date of the initial FDA approval of the contrast media if it is determined that the use of the contrast media is medically necessary and generally acceptable medical practice (see [Chapter 2, Section 22.1](#), *Drugs and Medicines*, for guidance on approval of labeled or unlabeled use of drugs).

D. October 1, 1994, for MRA.

II. PROCEDURE CODE(S)

A. MRI: 70336, 70540-70543, 70551-70559, 71550-71552, 72141-72149, 72156-72158, 72195-72197, 73218-73223, 73718-73723, 74181-74183, 75552, 75556, 76093-76094, 76393-76394, and 76400

B. MRA: 70544 -70549, 71555, 72159, 72198, 73225, 73725, and 74185.

C. MRS: 76390

III. DESCRIPTION

A. Magnetic resonance imaging (MRI), formerly also referred to as nuclear magnetic resonance (NMR), is a noninvasive method of graphically representing the distribution of water and other hydrogen-rich molecules in the human body. MRI uses radio frequency radiation in the presence of a carefully controlled magnetic field to produce high quality cross-sectional images of the head and body in any plane. These tomographic images represent the tissue being analyzed and the environment surrounding it. MRI has become a useful diagnostic imaging modality that is capable of demonstrating a wide variety of soft-tissue lesions with contrast resolution equal or superior to computerized tomography (CT) scanning in various parts of the body. Among the advantages of MRI are the absence of ionizing radiation and the ability to achieve high levels of tissue contrast resolution without injected iodinated contrast agents.

B. Magnetic Resonance Angiography (MRA) techniques generate contrast between flowing blood and surrounding tissue, and provide anatomic images in a format similar to that of conventional x-ray angiography, and can also provide physiologic information.

C. Magnetic Resonance Spectroscopy (MRS) is the use of the NMR phenomenon to study physical, chemical, and biological properties of matter.

IV. POLICY

A. MRI and open MRI, with or without contrast media, can be considered for cost sharing when of following criteria are met:

1. The patient is referred for the diagnostic procedure by a physician.
2. The indication(s) for MRI or the open MRI, with contrast media, is consistent with the preliminary diagnosis or symptoms.
3. Other noninvasive and less costly means of diagnosis have been attempted or are not appropriate.
4. MRI units which have received premarket approval by the Food and Drug Administration (FDA), are operating within the parameters specified by the approval and are licensed or registered by the appropriate state agency responsible for licensing or registering medical equipment which emits ionizing radiation.
5. The MRI equipment is operated under the general supervision of a physician.
6. The test results are interpreted by a physician.

7. The tests are provided following the most current monograph for MRI and open MRI with or without contrast media, published by the American College of Radiology (ACR).

B. Claims for MRA, MRI or open MRI with or without contrast media, are covered when medically necessary, appropriate, and the standard of care considering the patient's symptoms and preliminary diagnosis. If there is any question as to the appropriateness of a MRA, MRI or open MRI with or without contrast media, the attending physician should be asked to document the medical necessity.

C. MRA of the head and neck may be considered for cost sharing to evaluate:

1. the carotid vessels of the head and neck,
2. patients with vascular conditions of the head and neck, such as carotid stenosis, when surgery is anticipated and the MRA is used to decide whether surgery is appropriate, and
3. patients who cannot undergo x-ray angiography because the patients could have adverse reactions to conventional contrast agents.

D. Magnetic Resonance Spectroscopy (MRS) may be considered for cost sharing if performed within the scope of FDA approved guidelines.

E. The American College of Radiology (ACR) Monogram on Magnetic Resonance Imaging may be used as a guide to determine when the use of MRI is medically necessary, appropriate and the standard of care. However, coverage for MRI is not limited to those indications cited in the ACR Monogram. MRI for indications, which are documented by reliable evidence as safe, effective, and comparable or superior to standard care (proven), is covered.

V. POLICY CONSIDERATIONS

A. MRIs have become a primary diagnostic tool for many conditions and symptoms making other noninvasive and less costly means of diagnosis not appropriate. In those cases where a MRI is an appropriate primary diagnostic tool, it is not necessary to request information on the results of other noninvasive testing. MRIs may be considered a primary diagnostic modality for evaluation of the following conditions:

1. abdominal aortic aneurysm;
2. acoustic tumors;
3. bladder and renal cancer staging;
4. bone necrosis and infarction;

5. cavernous hemangiomas;
6. cervical radiculopathy;
7. cerebral strokes;
8. cerebral tumors;
9. congenital brain anomalies;
10. coronary artery disease;
11. diseases of the white matter (multiple sclerosis);
12. evaluation of abnormal cardiac pathological anatomy (i.e., congenital heart defects, such as Tetralogy of Fallot);
13. evaluation of bone marrow;
14. evaluation of disease of the thoracic aorta, such as dissection, evaluation of epileptic patient;
15. evaluation of patients exhibiting herniated lumbar intervertebral disc(s) that are considered surgical candidates (i.e., have failed standard conservative treatment and show rapid deterioration of clinical signs and symptoms);

Note: A standard course of conservative therapy has been defined as one week of bed rest, anti-inflammatory, analgesic, and muscle relaxant medications, and physical therapy.

16. follow-up of stable head injuries;
17. infections and inflammation of the brain;
18. intrinsic diseases of the spinal cord;
19. ischemic heart disease;
20. liver neoplasms and cysts;
21. mediastinal masses;
22. obstruction and/or thrombus in the vena cava;
23. orbital masses;
24. pericardial disease;

25. signs of cord compression due to trauma or metastatic disease;
26. soft tissue masses of the extremities;
27. temporal bone;
28. temporomandibular joint; and
29. thrombi in venous structures such as the portal vein, renal veins, and vena cava.

B. Any other claimed indication/conditions would be subject to prepayment review utilizing the current ACR monograph for MRI. If it is determined that less expensive diagnostic procedures could have met the patient's needs (for example, a CT scan or certain nuclear medicine procedures) payment will be made for no more than the allowance for the less expensive services.

C. In such situations, the Health Administration Center (HAC) will still use the appropriate MRI procedure code, but on the EOB the message "medical need not documented" will be indicated.

D. Claims for both MRI and CT scans for the same body area for the same episode of care will require documentation of need and will be reviewed for medical appropriateness except for claims involving diseases of the orbit, ears, paranasal sinuses, and superficial, deep facial structures, soft tissue masses of the extremities, evaluation of bone marrow, and bone necrosis and infarction.

E. MRI with or without contrast media. MRI with or without contrast media procedures not listed in the ACR monograph recommendations are to be medically reviewed to determine, if in the absence of the use of the contrast media, the MRI would have otherwise been medically necessary. If medical review determines that in the absence of the use of the contrast media, the MRI was medically necessary and would have otherwise been eligible for cost sharing then cost sharing should be allowed for an amount which does not exceed the allowed amount for the MRI without contrast media, and the contrast media shall be denied as not medically necessary.

F. If previously denied MRA claims for the conditions identified are brought to the attention of HAC, the claims shall be reprocessed subject to all other claims processing requirements.

VI. EXCLUSIONS

MRI, MRA, and MRS for unproven indications. [38 CFR 17.272(a)(14)]

END OF POLICY