

**FIRST COAST SERVICE OPTIONS
FLORIDA MEDICARE PART B
LOCAL COVERAGE DETERMINATION**

CPT/HCPCS Codes

70551 Magnetic resonance (eg, proton) imaging, brain (including brain stem); without contrast material

70552 with contrast material(s)

70553 without contrast material, followed by contrast material(s) and further sequences

70557 Magnetic resonance (eg, proton) imaging, brain (including brain stem and skull base), during open intracranial procedure (eg, to assess for residual tumor or residual vascular malformation); without contrast material

70558 with contrast material(s)

70559 without contrast material(s), followed by contrast material(s) and further sequences

LCD Number

70551

LCD Database ID Number

L5858

Contractor Name

First Coast Service Options, Inc.

Contractor Number

00590

Contractor Type

Carrier

LCD Title

Magnetic Resonance Imaging of the Brain

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CMS National Coverage Policy

Language quoted from CMS National Coverage Determinations (NCDs) and coverage provisions in interpretive manuals are italicized throughout the Local Coverage Determination (LCD). NCDs and coverage provisions in interpretive manuals are not subject to the LCD Review Process (42 CFR 405.860[b] and 42 CFR 426 [Subpart D]). In addition, an administrative law judge may not review an NCD. See §1869(f)(1)(A)(i) of the Social Security Act.

Unless otherwise specified, *italicized* text represents quotation from one or more of the following CMS sources:

CMS Manual System, Pub. 100-3, Medicare National Coverage Determinations, Chapter 1, Section 220.2
CMS Manual System, Pub. 100-8, Medicare Program Integrity, Chapter 13, Section 13.1.3

Primary Geographic Jurisdiction

Florida

Secondary Geographic Jurisdiction

N/A

CMS Region

Region IV

CMS Consortium

Southern

Original Determination Effective Date

04/17/1997

Original Determination Ending Date

N/A

Revision Effective Date

10/18/2005

Revision Ending Date

10/17/2005

Indications and Limitations of Coverage and/or Medical Necessity

Magnetic Resonance Imaging (MRI) is used to diagnose a variety of central nervous system disorders. Unlike computed tomography (CT) scanning, MRI does not make use of ionizing radiation or require iodinated contrast material to distinguish normal from pathologic tissue. Rather, the difference in the number of protons contained within hydrogen-rich molecules in the body (water, proteins, lipids, and other macromolecules) determines recorded image qualities and makes possible the distinction of white from gray matter, tumor from normal tissue, and flowing blood within vascular structures.

MRI provides superior tissue contrast when compared to CT, is able to image in multiple planes, is not affected by bone artifact, provides vascular imaging capability, and makes use of safer contrast media (gadolinium chelate agents). Its major disadvantage over CT is the longer scanning time required for study, making it less useful for emergency evaluations of acute bleeding or for unstable patients. Because a powerful magnetic field is required to obtain an MRI, patients with ferromagnetic materials in place may not be able to undergo MRI study. These include patients with cardiac pacemakers, implanted neurostimulators, cochlear implants, metal in the eye and older ferromagnetic intracranial aneurysm clips. All of these may be potentially displaced when exposed to the powerful magnetic fields used in MRI.

Florida Medicare will consider Magnetic Resonance Imaging of the Brain medically reasonable and necessary when used to aid in the diagnosis of lesions of the brain and to assist in therapeutic decision making in the following conditions:

- For detecting or evaluating extra-axial tumors, A-V malformations, cavernous hemangiomas, small intracranial aneurysms, cranial nerve lesions, demyelination disorders including multiple sclerosis, lesions near dense bone, acoustic neuromas, pituitary lesions, and brain radiation injuries;
- For development abnormalities of the brain including neuroectodermal dysplasia;
- For subacute central nervous system hemorrhage or hematoma;
- For acute cerebrovascular accidents;
- For complex partial seizures, seizures refractory to therapy, temporal lobe epilepsy, or other atypical seizure disorders;
- MRI is usually not the procedure of choice in patients who have acute head trauma, acute intracranial bleeding, or investigation of skull fracture or other bone abnormality, or as follow-up for hydrocephalus. However, a MRI may be necessary in patients whose presentation indicates a focal problem or who have had a recent significant change in symptomatology;
- For brain infections;
- Where soft tissue contrast is necessary;
- When bone artifacts limit CT, or coronal, coronosagittal or parasagittal images are desired; **[and]**
- For procedures in which iodinated contrast material are contraindicated.

Magnetic Resonance Imaging is considered investigational when medical records document the service was performed only for one of the following:

- measurement of blood flow and spectroscopy,
- imaging of cortical bone and calcifications, and
- procedures involving spatial resolution of bone and calcifications.

When Magnetic Resonance Imaging is used for an investigational purpose, an acceptable advance notice of Medicare's denial of payment must be given to the patient when the provider does not want to accept financial responsibility for the service.

Coverage Topic

Diagnostic Tests and X-Rays

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ICD-9 Codes that Support Medical Necessity

For procedure codes 70551, 70552, and 70553:

006.5	Amebic brain abscess
013.00-013.06	Tuberculous meningitis
013.10-013.16	Tuberculoma of meninges
013.20-013.26	Tuberculoma of brain (current disease)
013.30-013.36	Tuberculous abscess of brain
013.60-013.66	Tuberculous encephalitis or myelitis
013.80-013.86	Other specified tuberculosis of central nervous system
013.90-013.96	Unspecified tuberculosis of central nervous system
036.0	Meningococcal meningitis
036.1	Meningococcal encephalitis
036.2	Meningococcemia
042	Human immunodeficiency virus [HIV] disease
046.0-046.9	Slow virus infection of central nervous system
047.0-047.9	Meningitis due to enterovirus
049.0-049.9	Other non-arthropod-borne viral diseases of central nervous system
052.0	Postvaricella encephalitis
053.0	Herpes zoster with meningitis
054.3	Herpetic meningoencephalitis
054.72	Herpes simplex meningitis
055.0	Postmeasles encephalitis
056.01	Encephalomyelitis due to rubella
062.0-062.9	Mosquito-borne viral encephalitis
063.0-063.9	Tick-borne viral encephalitis

064	Viral encephalitis transmitted by other and unspecified arthropods
072.1	Mumps meningitis
072.2	Mumps encephalitis
090.40-090.49	Juvenile neurosyphilis
094.0-094.9	Neurosyphilis
112.83	Candidal meningitis
114.2	Coccidioidal meningitis
115.01	Infection by <i>Histoplasma capsulatum</i> , meningitis
115.11	Infection by <i>Histoplasma duboisii</i> , meningitis
115.91	Histoplasmosis, unspecified, meningitis
130.0	Meningoencephalitis due to toxoplasmosis
162.0-162.9	Malignant neoplasm of trachea, bronchus and lung
191.0-191.9	Malignant neoplasm of brain
192.0	Malignant neoplasm of cranial nerves
192.1	Malignant neoplasm of cerebral meninges
194.3	Malignant neoplasm of pituitary gland and craniopharyngeal duct
194.4	Malignant neoplasm of pineal gland
196.0	Secondary and unspecified malignant neoplasm of lymph nodes of head, face, and neck
198.3	Secondary malignant neoplasm of brain and spinal cord
198.4	Secondary malignant neoplasm of other parts of nervous system
198.5	Secondary malignant neoplasm of bone and bone marrow
225.0	Benign neoplasm of brain
225.1	Benign neoplasm of cranial nerves
225.2	Benign neoplasm of cerebral meninges
225.8	Benign neoplasm of other specified sites of nervous system
227.3	Benign neoplasm of pituitary gland and craniopharyngeal duct (pouch)
227.4	Benign neoplasm of pineal gland
228.02	Hemangioma of intracranial structures
237.0	Neoplasm of uncertain behavior of pituitary gland and craniopharyngeal duct
237.1	Neoplasm of uncertain behavior of pineal gland
237.5	Neoplasm of uncertain behavior of brain and spinal cord
237.6	Neoplasm of uncertain behavior of meninges
237.70-237.9	Neurofibromatosis
239.6	Neoplasms of unspecified nature, brain
239.7	Neoplasms of unspecified nature, endocrine glands and other parts of nervous system
253.0-253.9	Disorders of the pituitary gland and its hypothalamic control
298.9	Unspecified psychosis
310.0-310.9	Specific nonpsychotic mental disorders due to brain damage
320.0-326	Inflammatory diseases of the central nervous system
330.0-330.9	Cerebral degenerations usually manifest in childhood
331.0-331.9	Other cerebral degenerations
332.0-332.1	Parkinson's disease
333.0-333.99	Other extrapyramidal disease and abnormal movement disorders
334.0-334.9	Spinocerebellar disease

340	Multiple sclerosis
341.0-341.9	Other demyelinating diseases of central nervous system
342.00-342.92	Hemiplegia and hemiparesis
343.0-343.9	Infantile cerebral palsy
344.00-344.9	Other paralytic syndromes
345.00-345.91	Epilepsy
348.0-348.9	Other conditions of brain
349.1	Nervous system complications from surgically implanted device
349.2	Disorders of meninges, not elsewhere classified
349.81-349.89	Other specified disorders of nervous system
349.9	Unspecified disorders of nervous system
350.1-350.9	Trigeminal nerve disorders
351.0-351.9	Facial nerve disorders
352.0-352.9	Disorders of other cranial nerves
358.00-358.01	Myasthenia gravis
358.1	Myasthenic syndromes in diseases classified elsewhere
368.11	Sudden visual loss
368.12	Transient visual loss
368.2	Diplopia
368.40	Visual field defect, unspecified
368.8	Other specified visual disturbances
368.9	Unspecified visual disturbance
374.31	Paralytic ptosis
377.00	Papilledema, unspecified
377.01	Papilledema associated with increased intracranial pressure
377.51	Disorders of optic chiasm, associated with pituitary neoplasms and disorders
377.52	Disorders of optic chiasm, associated with other neoplasms
377.61	Disorders of other visual pathways associated with neoplasms
377.71	Disorders of visual cortex, associated with neoplasms
378.51-378.52	Paralytic strabismus, third or oculomotor nerve palsy, partial and total
378.53	Paralytic strabismus, fourth or trochlear nerve palsy
378.54	Paralytic strabismus, sixth or abducens nerve palsy
378.55-378.56	External and total ophthalmoplegia
386.2	Vertigo of central origin
388.2	Sudden hearing loss, unspecified
388.5	Disorders of acoustic nerve
389.10-389.18	Sensorineural hearing loss
389.2	Mixed conductive and sensorineural hearing loss
430-438.9	Cerebrovascular disease
572.2	Hepatic coma
676.60	Galactorrhea, unspecified as to episode of care or not applicable
739.0	Nonallopathic lesions, not elsewhere classified, head region
742.0-742.4	Other congenital anomalies of nervous system
742.8	Other specified anomalies of nervous system

742.9	Unspecified anomaly of brain, spinal cord, and nervous system
747.81	Anomalies of cerebrovascular system
759.2	Anomalies of other endocrine glands
759.3	Situs inversus
759.4	Conjoined twins
759.5	Tuberous sclerosis
759.6	Other hamartoses, not elsewhere classified
759.7	Multiple congenital anomalies, so described
759.81-759.89	Other specified anomalies
759.9	Congenital anomaly, unspecified
767.0	Birth trauma, subdural and cerebral hemorrhage
768.5	Severe birth asphyxia
768.6	Mild or moderate birth asphyxia
768.9	Unspecified birth asphyxia in liveborn infant
772.10-772.14	Intraventricular hemorrhage
772.2	Subarachnoid hemorrhage
780.01-780.09	Alteration of consciousness
780.1	Hallucinations
780.2	Syncope and collapse
780.31-780.39	Convulsions
780.4	Dizziness and giddiness
780.6	Fever
780.91-780.99	Other general symptoms
781.0-781.8	Symptoms involving nervous and musculoskeletal systems
781.94	Facial weakness
781.99	Other symptoms involving nervous and musculoskeletal systems
784.2	Swelling, mass, or lump in head and neck
784.3	Aphasia
784.5	Other speech disturbance
784.60-784.69	Other symbolic dysfunction
793.0	Nonspecific abnormal findings on radiological and other examination of skull and head
794.00-794.09	Nonspecific abnormal results of function studies, brain and central nervous system
800.00-800.99	Fracture of vault of skull
801.00-801.99	Fracture of base of skull
850.0-854.19	Intracranial injury, excluding those with skull fracture
950.0-950.9	Injury to optic nerve and pathways
951.0-951.9	Injury to other cranial nerve(s)
996.2	Mechanical complication of nervous system device, implant, and graft
997.00	Nervous system complication, unspecified
997.01	Central nervous system complication
997.02	Iatrogenic cerebrovascular infarction or hemorrhage
997.09	Other nervous system complications
V10.85	Personal history of malignant neoplasm of brain
V10.86	Personal history of malignant neoplasm of other parts of nervous system

V10.88	Personal history of malignant neoplasm of other endocrine glands and related structures
*V45.2	Presence of cerebrospinal fluid drainage device
V67.1	Follow-up examination, following radiotherapy
V67.2	Follow-up examination, following chemotherapy

* According to the ICD-9-CM book, diagnosis code V45.2 is a secondary diagnosis code and should not be billed as the primary diagnosis.

Diagnoses that Support Medical Necessity

See ICD-9 Codes that Support Medical Necessity.

ICD-9 Codes that DO NOT Support Medical Necessity

All other diagnosis codes not listed as covered in the “ICD-9 Codes that Support Medical Necessity” section of this policy.

Diagnoses that DO NOT Support Medical Necessity

All other diagnosis not listed as covered in the “ICD-9 Codes that Support Medical Necessity” section of this policy.

Documentation Requirements

Medical record documentation maintained by the performing physician/nonphysician practitioner must clearly indicate the medical necessity of the service being billed. In addition, documentation that the service was performed must be included in the patient’s medical record. This information is normally found in the office/progress notes, hospital notes, and/or procedure report.

If the provider of the service is other than the ordering/referring physician/nonphysician practitioner, that provider must maintain documentation of test results and interpretation, along with copies of the ordering/referring physician/nonphysician practitioner’s order for the studies. The physician/nonphysician practitioner must state the clinical indication/medical necessity for the study in his/her order for the test.

Documentation should support the criteria for coverage as set forth in the “Indications and Limitations of Coverage and/or Medical Necessity” section of this policy.

Utilization Guidelines

It is expected that these services would be performed as indicated by current medical literature and/or standards of practice. When services are performed in excess of established parameters, they may be subject to review for medical necessity.

Sources of Information and Basis for Decision

Grainger & Allison’s Diagnostic Radiology: A Textbook of Medical Imaging, 4th ed. (2001). Retrieved September 26, 2005, from <http://home.mdconsult.com/das/book/body/407046686/1047/1683.html>

Hasso, A., Drayer, B., Anderson, R., Braffman, B., Davis, P., Deck, M., Johnson, B., Masaryk, T., Pomeranz, S., Seidenwurm, D., Tanenbaum, L., Masdeu, J. (2000). Vertigo and hearing loss. *American*

College of Radiology-ACR Appropriateness Criteria, 215, 471-478. This reference consulted for guidelines used in management of hearing loss to establish indications and limitations.

Sedwick, J., Gajewski, B., Prevatt, A., Antonelli, P. (2001). Magnetic resonance imaging in the search for retrocochlear pathology. *Otolaryngology-Head and Neck Surgery*, 124(6), 652-655. This source consulted for clinical study results.

Advisory Committee Notes

This policy does not reflect the sole opinion of the contractor or Contractor Medical Director. Although the final decision rests with the contractor, this policy was developed in cooperation with advisory groups, which includes representatives from numerous societies.

Carrier Advisory Committee Meeting held on September 28, 1996.

Start Date of Comment Period

N/A

End Date of Comment Period

N/A

Start Date of Notice Period

11/01/2005

Revision History

Revision Number:	12	LCR B2005-105
Start Date of Comment Period	N/A	
Start Date of Notice Period	11/01/2005	1 st Quarter 2006 Update
Revised Effective Date:	10/18/2005	

Explanation of Revision: Policy was converted into LCD format. Statement and indications of investigational reasons were moved under the "Indications and Limitations of Coverage and/or Medical Necessity" section from old format, with correction of "and" instead of "or" for procedures involving spatial resolution of bone **and** calcifications. References under "CMS National Coverage Policy" and "Sources of Information and Basis for Decision" sections were updated. Under the "Documentation Requirements" verbiage was changed to include nonphysician practitioner. Under the "ICD-9 Codes that Support Medical Necessity" section an asterisk was added to code V45.2 and statement that this code is a secondary diagnosis code and should not be billed as the primary diagnosis. The effective date of policy revision is based on process date.

Revision Number:	11	LCR B2004-020FL
Start Date of Comment Period	N/A	
Start Date of Notice Period	11/01/2004	1 st Quarter 2005 Update
Revised Effective Date:	10/01/2004	

Explanation of Revision: Annual 2005 ICD-9 Update and changed descriptor for 310.0-310.9. The effective date of policy revision is based on date of service.

Revision Number:	10	PCR B2004-006
Start Date of Comment Period	N/A	
Start Date of Notice Period	02/01/2004	2 nd Quarter 2004 Update
Revised Effective Date:	01/01/2004	

Explanation of Revision: Annual 2004 HCPCS Update. Added procedure codes 70557, 70558, and 70559. The effective date of the policy revisions is based on date of service.

Revision Number:	9	PCR B2003-269
Start Date of Comment Period	N/A	
Start Date of Notice Period	02/01/2004	2 nd Quarter 2004 Update
Revised Effective Date:	01/12/2004	

Explanation of Revision: Addition of ICD-9 code 676.60 to the “ICD-9 Codes that Support Medical Necessity” section of the policy. The effective date of the policy revisions is based on date of service.

Revision Number:	8	PCR B2003-231
Start Date of Comment Period	N/A	
Start Date of Notice Period	11/01/2003	1 st Quarter 2004 Update
Revised Effective Date:	10/01/2003	

Explanation of Revision: Policy updated to conform to 2004 ICD-9-CM Coding Changes.

Revision Number:	7	PCR B2003-183
Start Date of Comment Period	N/A	
Start Date of Notice Period	08/01/2003	4 th Quarter 2003 Update
Revised Effective Date:	07/21/2003	

Explanation of Revision: Addition of ICD-9 codes to the “ICD-9 Codes that Support Medical Necessity” section of the policy.

Revision Number:	6	PCR B2002-166
Start Date of Comment Period	N/A	
Start Date of Notice Period	11/01/2002	1 st Quarter 2003 Update
Revised Effective Date:	10/01/2002	

Explanation of Revision: Annual ICD-9 Update

Revision Number:	5	PCR B2001-159
Start Date of Comment Period	N/A	
Start Date of Notice Period	11/01/2001	1 st Quarter 2002 Update
Revised Effective Date:	10/01/2001	

Explanation of Revision: Annual ICD-9 Update

Revision Number:	4	PCR B2001-054
Start Date of Comment Period	N/A	
Start Date of Notice Period	02/01/2001	2 nd Quarter 2001 Update
Revised Effective Date:	02/05/2001	

Explanation of Revision: A revision was made to add ICD-9 code range 162.0-162.9 to the policy

Revision Number:	3	PCR B2000-160
Start Date of Comment Period	N/A	
Start Date of Notice Period	09/01/2000	Sept/Oct 2000 Update
Revised Effective Date:	10/01/2000	

Explanation of Revision: Annual ICD-9 Update

Revision Number:	2	PCR B97-130
Start Date of Comment Period		
Start Date of Notice Period		
Revised Effective Date:	10/01/1997	
Revision Number:	1	PCR B97-045A
Start Date of Comment Period		
Start Date of Notice Period		
Revised Effective Date:	05/07/1997	
Revision Number:	Original	PCR B97-045
Start Date of Comment Period	09/28/1996	
Start Date of Notice Period		
Original Effective Date:	04/14/1997	

Related Documents

N/A

LCD Attachments