ICD-9-CM Coding Guidelines

The below listed cerebrovascular disorder guidelines are not inclusive. The coder should refer to the applicable Coding Clinic guidelines for additional information. The Centers for Medicare & Medicaid Services considers Coding Clinic, published by the American Hospital Association, to be the official source for coding guidelines. Hospitals should follow the Coding Clinic guidelines to assure accuracy in ICD-9-CM coding and DRG assignment.

Definition of Principal Diagnosis

The principal diagnosis is that condition established after study to be chiefly responsible for occasioning the admission of the patient to the hospital for care.

Two or more diagnoses may equally meet the definition for principal diagnosis as determined by the circumstances of admission, diagnostic work-up and/or therapy provided. Be aware that there is a difference between admitting a patient to treat two conditions and two conditions being present at the time of admission. The principal diagnosis is always the reason for admission.

Documentation to Support Cerebrovascular Disorders

When reviewing a medical record with the diagnosis of a cerebrovascular disorder, identify the medical record documentation that substantiates the cerebrovascular disorder. This may include:

- Sudden onset of acute severe headache
- Syncope, loss of consciousness, coma or stupor
- Fever, leukocytosis in conjunction with other signs and symptoms
- Vomiting, confusion, obtundation, dizziness in conjunction with other signs and symptoms
- Lethargy, delirium
- Seizures
- Stiffness in neck
- Sudden onset of a focal neurological deficit
- Sudden increase in intracranial pressure
- Alteration in mental status
- Hypertension
- Hemiparesis
- Motor dysfunction
- Facial weakness, pain, numbness, hypoesthesia
- CT and MRI scans, brain
- Skull X-rays
- Cerebral angiography
- Lumbar puncture
- ECG
- EEG
- Ultrasound
DRG 559, Acute ischemic stroke with use of thrombolytic agent

DRG 559 was added FY 2006. This new DRG includes diagnosis codes 433.x1 and 434.x1 with procedure code 99.10, injection or infusion of thrombolytic agent. These are diagnosis codes included in DRG 14 unless procedure code 99.10 is present.

Coding Guidelines

Acute cerebral artery occlusion with infarction/hemiplegia/aphasia
Codes 430 through 437 require the use of additional codes to identify any sequelae. For example, acute cerebral artery occlusion with infarction with sequelae of hemiplegia and aphasia is assigned codes 434.91, 342.90 and 784.3. (See Coding Clinic, fourth quarter 1998, page 87.)

Acute ischemic cerebrovascular accident with expressive aphasia and left-sided weakness
Acute ischemic cerebrovascular accident is assigned code 434.91, cerebral artery occlusion, unspecified, expressive aphasia is assigned code 784.3, aphasia, and left-sided weakness is assigned code 780.79, other malaise and fatigue. (See Coding Clinic, fourth quarter 2004, pages 77 and 78.)

Administration of neuroprotective agent
As of October 1, 2000, code 99.75, administration of neuroprotective agent, was created. A neuroprotective agent is a product that works directly at the nerve cell level to minimize ischemic injury. Thrombolytic and neuroprotective agents are being used to minimize damage from a stroke. Nimotop (nimodipine) is being used to treat ischemic injury resulting from acute subarachnoid hemorrhage. (See Coding Clinic, fourth quarter 2000, pages 68 and 69.)

Brain stem stroke
Brain stem stroke is assigned code 434.91, cerebral artery occlusion, unspecified, with cerebral infarction. (See Coding Clinic, fourth quarter 2004, pages 77 and 78.)

Code 436, acute, but ill-defined, cerebrovascular disease
Never assign code 436 (stroke, CVA) when a more specific condition is documented. (See Coding Clinic, fourth quarter 1993, page 27.) Effective October 1, 2002, code 436 was included in redefined DRG 015. Effective October 1, 2004, stroke and CVA were no longer assigned code 436. They were re-indexed to the default code of 434.91. When more definitive information is available, such as the stroke or CVA being embolic, 434.11, hemorrhagic, (430, 431, 432.0-432.9) or thrombotic, 434.01, the more specific code should be assigned. Stroke and CVA are included in DRG 14. (See Coding Clinic, first quarter 2005, page 48 and Coding Clinic, fourth quarter 2004, pages 77-78.)

Codes 438/430-437
Prior to October 1, 1997, code 438 was not to be assigned with a current diagnosis from categories 430-437. (See Coding Clinic, first quarter 1993, page 27.) After September 30, 1997, code 438 was expanded with the use of fourth and fifth digits so new sequelae from a current stroke and residuals from a previous stroke could both be coded. (See Coding Clinic, second quarter 2002, page 35; Coding Clinic, fourth quarter 1998, pages 39 and 40; and Coding Clinic, fourth quarter 1997, pages 35-37.)

Embolic hemorrhagic infarct of the temporal lobe
Embolic hemorrhagic infarct of the temporal lobe is assigned code 434.11. Hemorrhage is considered a component of the occlusion so code 431, intracerebral hemorrhage, is not assigned as an additional code. (See Coding Clinic, third quarter 1997, page 11.)
**Facial weakness/droop**

Facial weakness due to a late effect of cerebrovascular accident is assigned code 438.83. Facial weakness not due to a late effect of cerebrovascular disease is assigned code 781.94, facial weakness. (See *Coding Clinic*, fourth quarter 2003, page 72.)

**Fifth digits for categories 433 and 434**

Fifth digits must modify the fourth digit to which they are applied. They must follow a logical hierarchical structure. The fifth-digits “0” without mention of cerebral infarction and “1” with cerebral infarction, apply only to the code to which they are assigned.

The fifth digit of “1” (with cerebral infarction) is only assigned for the admission during which the infarction occurs. (See *Coding Clinic*, second quarter 1995, page 16.)

**History of a CVA**

When there is a history of CVA and no residuals are present, assign code V12.59.

When there is a history of CVA and there are residuals present, assign the appropriate codes from category 438. (See *Coding Clinic*, fourth quarter 1998, pages 88 and 89, and *Coding Clinic*, fourth quarter 1997, page 37.)

**Hypertensive cerebrovascular disease**

First assign codes from 430-438, cerebrovascular disease, then the appropriate hypertension code from categories 401-405 unless there is a specific code for the hypertensive condition, i.e., hypertensive encephalopathy, 437.2. (See *Coding Clinic*, third quarter 1990, page 3.)

**Lacunar infarction**

An acute lacunar infarction is assigned code 434.91. (See *Coding Clinic*, second quarter 1996, page 5.)

**Late effects of cerebrovascular disease**

There were major modifications to category 438 that became effective for discharges on and after October 1, 1997. Category 438, late effects of cerebrovascular disease, was expanded to four or five digit codes. This was done so specific late effect deficits could be identified, as well as a current diagnosis from categories 430-437 and any new sequelae. (See *Coding Clinic*, fourth quarter 1997, pages 35, 36, 59 and 60.)

The residual effect is a secondary diagnosis. For example, contractures of the right and left wrist due to a previous stroke are assigned codes 438.89 and 718.43. (See *Coding Clinic*, fourth quarter 1998, pages 39 and 40.)

A history of cerebral artery occlusion with infarction with residuals of hemiplegia and aphasia is assigned codes 438.20 and 438.11. (See *Coding Clinic*, fourth quarter 1998, pages 39 and 40.) If this was an admission for an acute cerebral infarction with hemiplegia and aphasia, the correct codes would be 434.91, cerebral artery occlusion, unspecified, with cerebral infarction as the principal diagnosis, plus codes 342.90, hemiplegia, unspecified, and 784.3, aphasia. (See *Coding Clinic*, fourth quarter 1998, page 87.)

A patient was admitted to a skilled nursing facility for intensive physical therapy rehabilitation following hospital treatment for a stroke. Rehabilitation was for severe ataxia and blurred vision due to the stroke. Code V57.1, other physical therapy, is sequenced as the principal diagnosis. Blurred vision, late effects of cerebrovascular disease, 438.7, disturbances of vision, other specified visual disturbances, 368.8 and ataxia, 438.84, late effects of cerebrovascular disease, ataxia are sequenced as secondary diagnoses. (See *Coding Clinic*, fourth quarter 2002, page 56.)
**Muscle weakness/CVA**
Residual deficit of muscle weakness secondary to late effect of CVA is assigned code 438.89, other effects of cerebrovascular disease and 728.87, muscle weakness. (See Coding Clinic, first quarter 2005, page 13.)

**Neuroprotective agent administration**
A neuroprotective agent is a product that works directly at the nerve cell to minimize ischemic injury. Effective October 1, 2000, a new code, 99.75, administration of neuroprotective agent was created. One neuroprotective agent, Nimotop (nimodipine), is administered for treating ischemic injury resulting from acute subarachnoid hemorrhage. (See Coding Clinic, fourth quarter 2000, pages 68 and 69.)

**Postoperative cerebral vascular accident (CVA)**
Cerebrovascular hemorrhage or infarction that occurs as a result of medical intervention is assigned code 997.02, iatrogenic cerebrovascular infarction or hemorrhage. Documentation must specify a cause and effect relationship between the medical intervention and CVA. In addition, assign a code from 430-432 or 433 or 434 with a fifth digit of “1” to identify the type of hemorrhage or infarct to sequence as a secondary diagnosis. Code 436, acute, but ill-defined, cerebrovascular disease, should not be assigned as a secondary code with code 997.02. (See ICD-9-CM Official Guidelines for Coding and Reporting, effective December 1, 2005, page 26.)

**Postoperative stroke**
Postoperative stroke is assigned code 997.02, iatrogenic cerebrovascular infarction or hemorrhage. Assign an additional code to specify the type of stroke/cerebrovascular accident. (See Coding Clinic, second quarter 2004, pages 8 and 9.)

**Reversible ischemic neurologic deficit (RIND)**
The coding of RIND depends on the context in which it is used. (See Coding Clinic, March-April 1985, pages 6 and 7 for information regarding RIND.)

**Stroke/CVA**
Stroke and CVA are no longer coded to 436 effective October 1, 2004. They were re-indexed to the default code of 434.91. When more definitive information is available, such as embolic, 434.11, hemorrhagic (430, 431, 432.0-432.9) or thrombotic, 434.01, the more specific code should be assigned. (See Coding Clinic, fourth quarter 2004, pages 77-78.)

**Terson’s syndrome**
Two codes are required for Terson’s syndrome; 379.23, vitreous hemorrhage and a code for subarachnoid hemorrhage, either 430, if it is nontraumatic, or if it is traumatic, 852.0x or 852.1x, depending on whether or not there is an open intracranial wound. (See Coding Clinic, third quarter 1991, pages 15 and 16.)