Starting October 1, 2015, CMS will update their existing medical necessity limitations on tests and procedures to correspond to ICD-10 codes. This limitations guide provides you with the latest changes.

This guide is not an all-inclusive list of National Coverage Documents (NCD) and Local Coverage Documents (LCD). You can search by LCD or NCD or keyword and region on the CMS website at: <a href="https://www.cms.gov/medicare-coverage-database/overview-and-quick-search.aspx?clickon=search">https://www.cms.gov/medicare-coverage-database/overview-and-quick-search.aspx?clickon=search.</a>

CMS will deny payment if the correct diagnosis codes are not entered on the order form, and your patient's test or procedure will not be covered. We compiled this information in one location to make it easier for you to find the proper codes for medically necessary diagnoses.

It is the responsibility of the provider to code to the highest level specified in the ICD-10-CM. The correct use of an ICD-10-CM code listed below does not assure coverage of a service. The service must be reasonable and necessary in the specific case and must meet the criteria specified in this determination.

We will continue to update this list as new CMS limitations are announced. You can always find the most current list at:

www.munsonhealthcare.org/medicalnecessity.

If you have any questions, please contact Kari Smith, Office Coordinator, at (231) 935-2296, or Karen Popa, Director, Patient Access Services, at (231) 935-7493.



#### (L35753) Non-Invasive Cerebrovascular Studies

USV Carotid (93880)

Group 1 Paragraph: Note: Diagnosis codes must be coded to the highest level of specificity.

CPT Code	Description
93880	Duplex scan of extracranial arteries; complete bilateral study (USV Carotid)
93882	Duplex scan of extracranial arteries; unilateral or limited study
93886	Transcranial Doppler study of the intracranial arteries; complete study
93888	Transcranial Doppler study of the intracranial arteries; limited study
93890	Transcranial Doppler study of the intracranial arteries; vasoreactivity study
93892	Transcranial Doppler study of the intracranial arteries; Emboli detection without intravenous microbubble injection
93893	Transcranial Doppler study of the intracranial arteries; Emboli detection with intravenous microbubble injection

#### Group 2 Paragraph: NON-COVERED

#### **Group 2 Codes:**

CPT Code	Description
93895	Quantitative carotid intima media thickness and carotid atheroma evaluation, bilateral

#### ICD-10 Codes That Support Medical Necessity and Covered by Medicare Program:

#### Group 1 Paragraph: Extracranial Arteries Studies (93880-93882)

Use a diagnosis code of R22.1 (localized swelling, mass, and lump, neck) to report pulsatile neck mass.

Use a diagnosis code of H93.11, H93.12, or H93.13 to report pulsatile tinnitus.

Use a diagnosis code of R09.89 (Other specified symptoms and signs involving the circulatory and respiratory systems) to report a carotid bruit.

For codes in the table below that require a 7th character, letter A initial encounter, D subsequent encounter, or S sequela may be used.

#### **Group 1 Codes:**

Code	Description
G04.1	Tropical spastic paraplegia
G45.0	Vertebro-basilar artery syndrome
G45.1	Carotid artery syndrome (hemispheric)
G45.2	Multiple and bilateral precerebral artery syndromes
G45.3	Amaurosis fugax
G45.4	Transient global amnesia
G45.8	Other transient cerebral ischemic attacks and related syndromes
G46.0	Middle cerebral artery syndrome
G46.1	Anterior cerebral artery syndrome
G46.2	Posterior cerebral artery syndrome
G81.01	Flaccid hemiplegia affecting right dominant side
G81.02	Flaccid hemiplegia affecting left dominant side

G81.03	Flaccid hemiplegia affecting right nondominant side
G81.04	Flaccid hemiplegia affecting left nondominant side
G81.11	Spastic hemiplegia affecting right dominant side
G81.12	Spastic hemiplegia affecting left dominant side
G81.13	Spastic hemiplegia affecting right nondominant side
G81.14	Spastic hemiplegia affecting left nondominant side
G81.91	Hemiplegia, unspecified affecting right dominant side
G81.92	Hemiplegia, unspecified affecting left dominant side
G81.93	Hemiplegia, unspecified affecting right nondominant side
G81.94	Hemiplegia, unspecified affecting left nondominant side
G82.21	Paraplegia, complete
G82.22	Paraplegia, incomplete
G82.51	Quadriplegia, C1-C4 complete
G82.52	Quadriplegia, C1-C4 incomplete
G82.53	Quadriplegia, C5-C7 complete
G82.54	Quadriplegia, C5-C7 incomplete
G83.0	Diplegia of upper limbs
G83.11	Monoplegia of lower limb affecting right dominant side
G83.12	Monoplegia of lower limb affecting left dominant side
G83.13	Monoplegia of lower limb affecting right nondominant side
G83.14	Monoplegia of lower limb affecting left nondominant side
G83.21	Monoplegia of upper limb affecting right dominant side
G83.22	Monoplegia of upper limb affecting left dominant side
G83.23	Monoplegia of upper limb affecting right nondominant side
G83.24	Monoplegia of upper limb affecting left nondominant side
G83.31	Monoplegia, unspecified affecting right dominant side
G83.32	Monoplegia, unspecified affecting left dominant side
G83.33	Monoplegia, unspecified affecting right nondominant side
G83.34	Monoplegia, unspecified affecting left nondominant side
G83.9	Paralytic syndrome, unspecified
G93.82	Brain death
G97.31	Intraoperative hemorrhage and hematoma of a nervous system organ or structure complicating a nervous system procedure
G97.32	Intraoperative hemorrhage and hematoma of a nervous system organ or structure complicating other procedure
G97.48	Accidental puncture and laceration of other nervous system organ or structure during a nervous system procedure
G97.49	Accidental puncture and laceration of other nervous system organ or structure during other procedure

G97.51	Postprocedural hemorrhage and hematoma of a nervous system organ or structure following a nervous system procedure
G97.52	Postprocedural hemorrhage and hematoma of a nervous system organ or structure following other procedure
H34.01	Transient retinal artery occlusion, right eye
H34.02	Transient retinal artery occlusion, left eye
H34.03	Transient retinal artery occlusion, bilateral
H34.11	Central retinal artery occlusion, right eye
H34.12	Central retinal artery occlusion, left eye
H34.13	Central retinal artery occlusion, bilateral
H34.211	Partial retinal artery occlusion, right eye
H34.212	Partial retinal artery occlusion, left eye
H34.213	Partial retinal artery occlusion, bilateral
H34.231	Retinal artery branch occlusion, right eye
H34.232	Retinal artery branch occlusion, left eye
H34.233	Retinal artery branch occlusion, bilateral
H34.811	Central retinal vein occlusion, right eye
H34.812	Central retinal vein occlusion, left eye
H34.813	Central retinal vein occlusion, bilateral
H34.821	Venous engorgement, right eye
H34.822	Venous engorgement, left eye
H34.823	Venous engorgement, bilateral
H34.831	Tributary (branch) retinal vein occlusion, right eye
H34.832	Tributary (branch) retinal vein occlusion, left eye
H34.833	Tributary (branch) retinal vein occlusion, bilateral
H34.9	Unspecified retinal vascular occlusion
H35.061	Retinal vasculitis, right eye
H35.062	Retinal vasculitis, left eye
H35.063	Retinal vasculitis, bilateral
H35.82	Retinal ischemia
H47.011	Ischemic optic neuropathy, right eye
H47.012	Ischemic optic neuropathy, left eye
H47.013	Ischemic optic neuropathy, bilateral
H53.121	Transient visual loss, right eye
H53.122	Transient visual loss, left eye
H53.123	Transient visual loss, bilateral
H53.131	Sudden visual loss, right eye
H53.132	Sudden visual loss, left eye

H53.133	Sudden visual loss, bilateral
H53.431	Sector or arcuate defects, right eye
H53.432	Sector or arcuate defects, left eye
H53.433	Sector or arcuate defects, bilateral
H53.451	Other localized visual field defect, right eye
H53.452	Other localized visual field defect, left eye
H53.453	Other localized visual field defect, bilateral
H53.461	Homonymous bilateral field defects, right side
H53.462	Homonymous bilateral field defects, left side
H53.47	Heteronymous bilateral field defects
H53.481	Generalized contraction of visual field, right eye
H53.482	Generalized contraction of visual field, left eye
H53.483	Generalized contraction of visual field, bilateral
H81.01	Meniere's disease, right ear
H81.02	Meniere's disease, left ear
H81.03	Meniere's disease, bilateral
H81.41	Vertigo of central origin, right ear
H81.42	Vertigo of central origin, left ear
H81.43	Vertigo of central origin, bilateral
H93.11	Tinnitus, right ear
H93.12	Tinnitus, left ear
H93.13	Tinnitus, bilateral
160.01	Nontraumatic subarachnoid hemorrhage from right carotid siphon and bifurcation
160.02	Nontraumatic subarachnoid hemorrhage from left carotid siphon and bifurcation
160.11	Nontraumatic subarachnoid hemorrhage from right middle cerebral artery
160.12	Nontraumatic subarachnoid hemorrhage from left middle cerebral artery
160.21	Nontraumatic subarachnoid hemorrhage from right anterior communicating artery
160.22	Nontraumatic subarachnoid hemorrhage from left anterior communicating artery
160.31	Nontraumatic subarachnoid hemorrhage from right posterior communicating artery
160.32	Nontraumatic subarachnoid hemorrhage from left posterior communicating artery
160.4	Nontraumatic subarachnoid hemorrhage from basilar artery
160.51	Nontraumatic subarachnoid hemorrhage from right vertebral artery
160.52	Nontraumatic subarachnoid hemorrhage from left vertebral artery
160.6	Nontraumatic subarachnoid hemorrhage from other intracranial arteries
160.8	Other nontraumatic subarachnoid hemorrhage
161.0	Nontraumatic intracerebral hemorrhage in hemisphere, subcortical
161.1	Nontraumatic intracerebral hemorrhage in hemisphere, cortical

161.3	Nontraumatic intracerebral hemorrhage in brain stem
161.4	Nontraumatic intracerebral hemorrhage in cerebellum
161.5	Nontraumatic intracerebral hemorrhage, intraventricular
161.6	Nontraumatic intracerebral hemorrhage, multiple localized
I61.8	Other nontraumatic intracerebral hemorrhage
162.01	Nontraumatic acute subdural hemorrhage
162.02	Nontraumatic subacute subdural hemorrhage
162.03	Nontraumatic chronic subdural hemorrhage
162.1	Nontraumatic extradural hemorrhage
163.011	Cerebral infarction due to thrombosis of right vertebral artery
163.012	Cerebral infarction due to thrombosis of left vertebral artery
163.02	Cerebral infarction due to thrombosis of basilar artery
163.031	Cerebral infarction due to thrombosis of right carotid artery
163.032	Cerebral infarction due to thrombosis of left carotid artery
163.09	Cerebral infarction due to thrombosis of other precerebral artery
163.111	Cerebral infarction due to embolism of right vertebral artery
163.112	Cerebral infarction due to embolism of left vertebral artery
163.12	Cerebral infarction due to embolism of basilar artery
163.131	Cerebral infarction due to embolism of right carotid artery
163.132	Cerebral infarction due to embolism of left carotid artery
163.19	Cerebral infarction due to embolism of other precerebral artery
163.211	Cerebral infarction due to unspecified occlusion or stenosis of right vertebral arteries
163.212	Cerebral infarction due to unspecified occlusion or stenosis of left vertebral arteries
163.22	Cerebral infarction due to unspecified occlusion or stenosis of basilar arteries
163.231	Cerebral infarction due to unspecified occlusion or stenosis of right carotid arteries
163.232	Cerebral infarction due to unspecified occlusion or stenosis of left carotid arteries
163.29	Cerebral infarction due to unspecified occlusion or stenosis of other precerebral arteries
163.311	Cerebral infarction due to thrombosis of right middle cerebral artery
163.312	Cerebral infarction due to thrombosis of left middle cerebral artery
163.321	Cerebral infarction due to thrombosis of right anterior cerebral artery
163.322	Cerebral infarction due to thrombosis of left anterior cerebral artery
163.331	Cerebral infarction due to thrombosis of right posterior cerebral artery
163.332	Cerebral infarction due to thrombosis of left posterior cerebral artery
163.341	Cerebral infarction due to thrombosis of right cerebellar artery
163.342	Cerebral infarction due to thrombosis of left cerebellar artery
163.39	Cerebral infarction due to thrombosis of other cerebral artery
163.411	Cerebral infarction due to embolism of right middle cerebral artery

107.410	
163.412	Cerebral infarction due to embolism of left middle cerebral artery
163.421	Cerebral infarction due to embolism of right anterior cerebral artery
163.422	Cerebral infarction due to embolism of left anterior cerebral artery
163.431	Cerebral infarction due to embolism of right posterior cerebral artery
163.432	Cerebral infarction due to embolism of left posterior cerebral artery
163.441	Cerebral infarction due to embolism of right cerebellar artery
163.442	Cerebral infarction due to embolism of left cerebellar artery
163.49	Cerebral infarction due to embolism of other cerebral artery
163.511	Cerebral infarction due to unspecified occlusion or stenosis of right middle cerebral artery
163.512	Cerebral infarction due to unspecified occlusion or stenosis of left middle cerebral artery
163.521	Cerebral infarction due to unspecified occlusion or stenosis of right anterior cerebral artery
163.522	Cerebral infarction due to unspecified occlusion or stenosis of left anterior cerebral artery
163.531	Cerebral infarction due to unspecified occlusion or stenosis of right posterior cerebral artery
163.532	Cerebral infarction due to unspecified occlusion or stenosis of left posterior cerebral artery
163.541	Cerebral infarction due to unspecified occlusion or stenosis of right cerebellar artery
163.542	Cerebral infarction due to unspecified occlusion or stenosis of left cerebellar artery
163.59	Cerebral infarction due to unspecified occlusion or stenosis of other cerebral artery
163.6	Cerebral infarction due to cerebral venous thrombosis, nonpyogenic
163.8	Other cerebral infarction
165.01	Occlusion and stenosis of right vertebral artery
165.02	Occlusion and stenosis of left vertebral artery
165.03	Occlusion and stenosis of bilateral vertebral arteries
165.1	Occlusion and stenosis of basilar artery
165.21	Occlusion and stenosis of right carotid artery
165.22	Occlusion and stenosis of left carotid artery
165.23	Occlusion and stenosis of bilateral carotid arteries
165.8	Occlusion and stenosis of other precerebral arteries
166.01	Occlusion and stenosis of right middle cerebral artery
166.02	Occlusion and stenosis of left middle cerebral artery
166.03	Occlusion and stenosis of bilateral middle cerebral arteries
166.11	Occlusion and stenosis of right anterior cerebral artery
166.12	Occlusion and stenosis of left anterior cerebral artery
166.13	Occlusion and stenosis of bilateral anterior cerebral arteries
166.21	Occlusion and stenosis of right posterior cerebral artery
166.22	Occlusion and stenosis of left posterior cerebral artery
166.23	Occlusion and stenosis of bilateral posterior cerebral arteries
166.3	Occlusion and stenosis of cerebellar arteries

166.8	Occlusion and stenosis of other cerebral arteries
167.0	Dissection of cerebral arteries, nonruptured
167.1	Cerebral aneurysm, nonruptured
167.2	Cerebral atherosclerosis
167.4	Hypertensive encephalopathy
167.6	Nonpyogenic thrombosis of intracranial venous system
167.7	Cerebral arteritis, not elsewhere classified
167.81	Acute cerebrovascular insufficiency
167.82	Cerebral ischemia
167.841	Reversible cerebrovascular vasoconstriction syndrome
167.848	Other cerebrovascular vasospasm and vasoconstriction
167.89	Other cerebrovascular disease
168.2	Cerebral arteritis in other diseases classified elsewhere
169.020	Aphasia following nontraumatic subarachnoid hemorrhage
169.021	Dysphasia following nontraumatic subarachnoid hemorrhage
169.022	Dysarthria following nontraumatic subarachnoid hemorrhage
169.023	Fluency disorder following nontraumatic subarachnoid hemorrhage
169.090	Apraxia following nontraumatic subarachnoid hemorrhage
169.091	Dysphagia following nontraumatic subarachnoid hemorrhage
169.092	Facial weakness following nontraumatic subarachnoid hemorrhage
169.093	Ataxia following nontraumatic subarachnoid hemorrhage
169.120	Aphasia following nontraumatic intracerebral hemorrhage
169.121	Dysphasia following nontraumatic intracerebral hemorrhage
169.122	Dysarthria following nontraumatic intracerebral hemorrhage
169.123	Fluency disorder following nontraumatic intracerebral hemorrhage
169.190	Apraxia following nontraumatic intracerebral hemorrhage
169.191	Dysphagia following nontraumatic intracerebral hemorrhage
169.192	Facial weakness following nontraumatic intracerebral hemorrhage
169.193	Ataxia following nontraumatic intracerebral hemorrhage
169.220	Aphasia following other nontraumatic intracranial hemorrhage
169.221	Dysphasia following other nontraumatic intracranial hemorrhage
169.222	Dysarthria following other nontraumatic intracranial hemorrhage
169.223	Fluency disorder following other nontraumatic intracranial hemorrhage
169.290	Apraxia following other nontraumatic intracranial hemorrhage
169.291	Dysphagia following other nontraumatic intracranial hemorrhage
169.292	Facial weakness following other nontraumatic intracranial hemorrhage
169.293	Ataxia following other nontraumatic intracranial hemorrhage

169.320	Aphasia following cerebral infarction
169.321	Dysphasia following cerebral infarction
169.322	Dysarthria following cerebral infarction
169.323	Fluency disorder following cerebral infarction
169.390	Apraxia following cerebral infarction
169.391	Dysphagia following cerebral infarction
169.392	Facial weakness following cerebral infarction
169.393	Ataxia following cerebral infarction
169.820	Aphasia following other cerebrovascular disease
169.821	Dysphasia following other cerebrovascular disease
169.822	Dysarthria following other cerebrovascular disease
169.823	Fluency disorder following other cerebrovascular disease
169.890	Apraxia following other cerebrovascular disease
169.891	Dysphagia following other cerebrovascular disease
169.892	Facial weakness following other cerebrovascular disease
169.893	Ataxia following other cerebrovascular disease
172.0	Aneurysm of carotid artery
177.71	Dissection of carotid artery
177.74	Dissection of vertebral artery
197.810	Intraoperative cerebrovascular infarction during cardiac surgery
197.811	Intraoperative cerebrovascular infarction during other surgery
197.820	Postprocedural cerebrovascular infarction during cardiac surgery
197.821	Postprocedural cerebrovascular infarction during other surgery
L76.22	Postprocedural hemorrhage and hematoma of skin and subcutaneous tissue following other procedure
M30.0	Polyarteritis nodosa
M30.1	Polyarteritis with lung involvement [Churg-Strauss]
M30.2	Juvenile polyarteritis
M30.8	Other conditions related to polyarteritis nodosa
M31.1	Thrombotic microangiopathy
M31.30	Wegener's granulomatosis without renal involvement
M31.31	Wegener's granulomatosis with renal involvement
M31.4	Aortic arch syndrome [Takayasu]
M31.5	Giant cell arteritis with polymyalgia rheumatica
M31.6	Other giant cell arteritis
M31.7	Microscopic polyangiitis
R09.89	Other specified symptoms and signs involving the circulatory and respiratory systems

R22.0	Localized swelling, mass and lump, head
R22.1	Localized swelling, mass and lump, neck
R26.0	Ataxic gait
R26.1	Paralytic gait
R26.81	Unsteadiness on feet
R26.89	Other abnormalities of gait and mobility
R27.8	Other lack of coordination
R29.5	Transient paralysis
R29.810	Facial weakness
R42*	Dizziness and giddiness
R47.01	Aphasia
R47.02	Dysphasia
R47.1	Dysarthria and anarthria
R47.81	Slurred speech
R47.89	Other speech disturbances
R55	Syncope and collapse
S09.0XXA	Injury of blood vessels of head, not elsewhere classified, initial encounter
S15.011A	Minor laceration of right carotid artery, initial encounter
S15.012A	Minor laceration of left carotid artery, initial encounter
S15.021A	Major laceration of right carotid artery, initial encounter
S15.022A	Major laceration of left carotid artery, initial encounter
S15.091A	Other specified injury of right carotid artery, initial encounter
S15.092A	Other specified injury of left carotid artery, initial encounter
S15.111A	Minor laceration of right vertebral artery, initial encounter
S15.112A	Minor laceration of left vertebral artery, initial encounter
S15.121A	Major laceration of right vertebral artery, initial encounter
S15.122A	Major laceration of left vertebral artery, initial encounter
S15.191A	Other specified injury of right vertebral artery, initial encounter
S15.192A	Other specified injury of left vertebral artery, initial encounter
S15.211A	Minor laceration of right external jugular vein, initial encounter
S15.212A	Minor laceration of left external jugular vein, initial encounter
S15.221A	Major laceration of right external jugular vein, initial encounter
S15.222A	Major laceration of left external jugular vein, initial encounter
S15.291A	Other specified injury of right external jugular vein, initial encounter
S15.292A	Other specified injury of left external jugular vein, initial encounter
S15.311A	Minor laceration of right internal jugular vein, initial encounter
S15.312A	Minor laceration of left internal jugular vein, initial encounter

S15.321A	Major laceration of right internal jugular vein, initial encounter
S15.322A	Major laceration of left internal jugular vein, initial encounter
S15.391A	Other specified injury of right internal jugular vein, initial encounter
S15.392A	Other specified injury of left internal jugular vein, initial encounter
S15.8XXA	Injury of other specified blood vessels at neck level, initial encounter
S25.111A	Minor laceration of right innominate or subclavian artery, initial encounter
S25.112A	Minor laceration of left innominate or subclavian artery, initial encounter
S25.121A	Major laceration of right innominate or subclavian artery, initial encounter
S25.122A	Major laceration of left innominate or subclavian artery, initial encounter
S25.191A	Other specified injury of right innominate or subclavian artery, initial encounter
S25.192A	Other specified injury of left innominate or subclavian artery, initial encounter
T82.311A	Breakdown (mechanical) of carotid arterial graft (bypass), initial encounter
T82.321A	Displacement of carotid arterial graft (bypass), initial encounter
T82.331A	Leakage of carotid arterial graft (bypass), initial encounter
T82.391A	Other mechanical complication of carotid arterial graft (bypass), initial encounter

Group 1 Medical Necessity ICD-10 Codes Asterisk Explanation: \*\*while diagnostic code R42 is listed as a covered diagnostic code, note that dizziness and giddiness alone are not usual indications unless associated with other localizing signs and symptoms.

Group 2 Paragraph: Transcranial Doppler Testing (93886-93893)

#### **Group 2 Codes:**

Code	Description
D57.00	Hb-SS disease with crisis, unspecified
D57.01	Hb-SS disease with acute chest syndrome
D57.02	Hb-SS disease with splenic sequestration
D57.1	Sickle-cell disease without crisis
D57.20	Sickle-cell/Hb-C disease without crisis
D57.211	Sickle-cell/Hb-C disease with acute chest syndrome
D57.212	Sickle-cell/Hb-C disease with splenic sequestration
D57.219	Sickle-cell/Hb-C disease with crisis, unspecified
D57.40	Sickle-cell thalassemia without crisis
D57.411	Sickle-cell thalassemia with acute chest syndrome
D57.412	Sickle-cell thalassemia with splenic sequestration
D57.419	Sickle-cell thalassemia with crisis, unspecified
D57.80	Other sickle-cell disorders without crisis
D57.811	Other sickle-cell disorders with acute chest syndrome
D57.812	Other sickle-cell disorders with splenic sequestration
D57.819	Other sickle-cell disorders with crisis, unspecified

G45.0	Vertebro-basilar artery syndrome
G45.1	Carotid artery syndrome (hemispheric)
G45.2	Multiple and bilateral precerebral artery syndromes
G45.4	Transient global amnesia
G45.8	Other transient cerebral ischemic attacks and related syndromes
G46.0	Middle cerebral artery syndrome
G46.1	Anterior cerebral artery syndrome
G46.2	Posterior cerebral artery syndrome
G93.82	Brain death
160.01	Nontraumatic subarachnoid hemorrhage from right carotid siphon and bifurcation
160.02	Nontraumatic subarachnoid hemorrhage from left carotid siphon and bifurcation
160.11	Nontraumatic subarachnoid hemorrhage from right middle cerebral artery
160.12	Nontraumatic subarachnoid hemorrhage from left middle cerebral artery
160.21	Nontraumatic subarachnoid hemorrhage from right anterior communicating artery
160.22	Nontraumatic subarachnoid hemorrhage from left anterior communicating artery
160.31	Nontraumatic subarachnoid hemorrhage from right posterior communicating artery
160.32	Nontraumatic subarachnoid hemorrhage from left posterior communicating artery
160.4	Nontraumatic subarachnoid hemorrhage from basilar artery
160.51	Nontraumatic subarachnoid hemorrhage from right vertebral artery
160.52	Nontraumatic subarachnoid hemorrhage from left vertebral artery
160.6	Nontraumatic subarachnoid hemorrhage from other intracranial arteries
160.8	Other nontraumatic subarachnoid hemorrhage
161.0	Nontraumatic intracerebral hemorrhage in hemisphere, subcortical
161.1	Nontraumatic intracerebral hemorrhage in hemisphere, cortical
161.3	Nontraumatic intracerebral hemorrhage in brain stem
161.4	Nontraumatic intracerebral hemorrhage in cerebellum
161.5	Nontraumatic intracerebral hemorrhage, intraventricular
161.6	Nontraumatic intracerebral hemorrhage, multiple localized
161.8	Other nontraumatic intracerebral hemorrhage
162.01	Nontraumatic acute subdural hemorrhage
162.02	Nontraumatic subacute subdural hemorrhage
162.03	Nontraumatic chronic subdural hemorrhage
162.1	Nontraumatic extradural hemorrhage
163.011	Cerebral infarction due to thrombosis of right vertebral artery
163.012	Cerebral infarction due to thrombosis of left vertebral artery
163.02	Cerebral infarction due to thrombosis of basilar artery
163.031	Cerebral infarction due to thrombosis of right carotid artery

163.032	Cerebral infarction due to thrombosis of left carotid artery
163.09	Cerebral infarction due to thrombosis of other precerebral artery
163.111	Cerebral infarction due to embolism of right vertebral artery
163.112	Cerebral infarction due to embolism of left vertebral artery
163.12	Cerebral infarction due to embolism of basilar artery
163.131	Cerebral infarction due to embolism of right carotid artery
163.132	Cerebral infarction due to embolism of left carotid artery
163.19	Cerebral infarction due to embolism of other precerebral artery
163.311	Cerebral infarction due to thrombosis of right middle cerebral artery
163.312	Cerebral infarction due to thrombosis of left middle cerebral artery
163.321	Cerebral infarction due to thrombosis of right anterior cerebral artery
163.322	Cerebral infarction due to thrombosis of left anterior cerebral artery
163.331	Cerebral infarction due to thrombosis of right posterior cerebral artery
163.332	Cerebral infarction due to thrombosis of left posterior cerebral artery
163.341	Cerebral infarction due to thrombosis of right cerebellar artery
163.342	Cerebral infarction due to thrombosis of left cerebellar artery
163.39	Cerebral infarction due to thrombosis of other cerebral artery
163.411	Cerebral infarction due to embolism of right middle cerebral artery
163.412	Cerebral infarction due to embolism of left middle cerebral artery
163.421	Cerebral infarction due to embolism of right anterior cerebral artery
163.422	Cerebral infarction due to embolism of left anterior cerebral artery
163.431	Cerebral infarction due to embolism of right posterior cerebral artery
163.432	Cerebral infarction due to embolism of left posterior cerebral artery
163.441	Cerebral infarction due to embolism of right cerebellar artery
163.442	Cerebral infarction due to embolism of left cerebellar artery
163.49	Cerebral infarction due to embolism of other cerebral artery
163.6	Cerebral infarction due to cerebral venous thrombosis, nonpyogenic
163.8	Other cerebral infarction
165.01	Occlusion and stenosis of right vertebral artery
165.02	Occlusion and stenosis of left vertebral artery
165.03	Occlusion and stenosis of bilateral vertebral arteries
165.1	Occlusion and stenosis of basilar artery
165.21	Occlusion and stenosis of right carotid artery
165.22	Occlusion and stenosis of left carotid artery
165.23	Occlusion and stenosis of bilateral carotid arteries
165.8	Occlusion and stenosis of other precerebral arteries
166.01	Occlusion and stenosis of right middle cerebral artery

166.02	Occlusion and stenosis of left middle cerebral artery
166.03	Occlusion and stenosis of bilateral middle cerebral arteries
166.11	Occlusion and stenosis of right anterior cerebral artery
166.12	Occlusion and stenosis of left anterior cerebral artery
166.13	Occlusion and stenosis of bilateral anterior cerebral arteries
166.21	Occlusion and stenosis of right posterior cerebral artery
166.22	Occlusion and stenosis of left posterior cerebral artery
166.23	Occlusion and stenosis of bilateral posterior cerebral arteries
166.3	Occlusion and stenosis of cerebellar arteries
166.8	Occlusion and stenosis of other cerebral arteries
167.1	Cerebral aneurysm, nonruptured
167.2	Cerebral atherosclerosis
167.4	Hypertensive encephalopathy
167.6	Nonpyogenic thrombosis of intracranial venous system
167.7	Cerebral arteritis, not elsewhere classified
167.81	Acute cerebrovascular insufficiency
167.82	Cerebral ischemia
167.841	Reversible cerebrovascular vasoconstriction syndrome