FIRST COAST SERVICE OPTIONS
FLORIDA MEDICARE PART B
LOCAL COVERAGE DETERMINATION

CPT/HCPCS Codes

93875 Non-invasive physiologic studies of extracranial arteries, complete bilateral study (eg, periorbital flow direction with arterial compression, ocular pneumoplethysmography, Doppler ultrasound spectral analysis)

93880 Duplex scan of extracranial arteries; complete bilateral study

93882 unilateral or limited study

ICD-9 Codes that Support Medical Necessity

362.34	Transient arterial occlusion
433.10	Occlusion and stenosis of carotid artery without mention of cerebral infarction
433.11	Occulsion and stenosis of carotid artery with cerebral infarction
433.30	Occlusion and stenosis of multiple and bilateral precerebral arteries without mention of cerebral infarction
433.31	Occlusion and stenosis of multiple and bilateral precerebral arteries with cerebral infarction
434.00-434.91	Occlusion of cerebral arteries
435.0	Basilar artery syndrome
435.1	Vertebral artery syndrome
435.2	Subclavian steal syndrome
435.3	Vertebrobasilar artery syndrome
435.8	Other specified transient cerebral ischemias
435.9	Unspecified transient cerebral ischemia
436	Acute, but ill-defined, cerebrovascular disease
442.81	Other aneurysm of artery of neck
785.9	Other symptoms involving cardiovascular system (carotid bruit)
900.00	Injury to carotid artery, unspecified
900.01	Injury to common carotid artery
900.02	Injury to external carotid artery
900.03	Injury to internal carotid artery
V67.00	Follow-up examination following surgery, unspecified
V67.09	Follow-up examination following other surgery

Indications and Limitations of Coverage and/or Medical Necessity

Non-invasive extracranial arterial studies involve the use of direct and occasionally indirect methods of ultrasound to evaluate and monitor the blood vessels that supply the brain. The direct methods of assessment are doppler and duplex ultrasound, whereas the indirect methods include techniques such as oculoplethysmography.

Doppler ultrasonography is used to evaluate hemodynamic parameters, specifically the velocity of blood flow and the pattern or characteristics of flow. The doppler ultrasound involves the evaluation of the supraorbital, common carotid, external carotid, internal carotid, and the vertebral arteries in the extracranial cerebrovascular assessment.

The second key component of vascular diagnostic ultrasound is the B-mode, or brightness-mode image. This real time imaging technique provides a two-dimensional gray-scale image of the soft tissues and vessels based on the acoustic properties of the tissues.

Duplex ultrasonography combines the direct visualization capabilities of B-mode ultrasonography and the blood-flow velocity measurements of doppler ultrasonography.

In addition to the direct methods of doppler and duplex ultrasonography to evaluate the cerebrovascular arterial system, indirect methods such as supraorbital doppler ultrasonography and oculoplethysmography are used as an adjunct to assess the carotid artery. Supraorbital doppler ultrasonography indirectly assesses blood flow from collateral branches of the internal carotid artery through the supraorbital vessels. This test is done by placing a directional doppler probe over a supraorbital artery and observing the flow with and without compression of neighboring arteries. Oculoplethysmography indirectly measures blood flow in the ophthalmic artery by graphically recording ocular pulses obtained from corneal cups held in place by mild suction. Because the ophthalmic artery is the first major branch of the internal carotid artery, its blood flow accurately reflects carotid blood flow and ultimately that of cerebral circulation.

Florida Medicare will consider non-invasive extracranial arterial studies medically reasonable and necessary under the following circumstances:

• To evaluate a patient with suspected occlusive cerebrovascular disease as demonstrated by the presence of transient ischemic attacks (TIA's), possible carotid bruit(s), diminished or absent pulses in the neck or arms, and/or a blood pressure difference in 2 arms of greater than 10mmHg.

• To evaluate a patient with signs/symptoms of subclavian steal syndrome. The symptoms usually associated with subclavian steal syndrome are a bruit in the supraclavicular fossa, unequal radial pulses, arm claudication following minimal exercise, and a difference of 20mmHg or more between the systolic blood pressures in the arms.

• To monitor a patient with known carotid stenosis. Patients demonstrating a diameter reduction of 30-50% are normally followed on an annual basis, whereas patients with a diameter reduction of greater than 50% are normally followed every six months. It is not necessary to monitor patients with a diameter reduction of less than 30%.

• To evaluate a patient with transient monocular blindness (amaurosis fugax). Normally a patient with this symptom is evaluated with an ocular pneumoplethysmography.

• To monitor patients who are post carotid endarterectomy. These patients are normally followed with duplex ultrasonography on the affected side at 6 weeks, 6 months, 1 year, and annually thereafter.

• To initially evaluate a patient presenting with an asymptomatic carotid bruit identified on physical examination. Routine monitoring of a patient with an asymptomatic carotid bruit without evidence of carotid stenosis is considered screening, and therefore, noncovered.

• To initially evaluate a patient who has had a recent stroke (recent is defined as less than six months) to determine the cause of the stroke.

• To evaluate a patient presenting with an injury to the carotid artery.

• To evaluate a patient with a suspected aneurysm of the carotid artery. This is suspected in patients with swelling of the neck particularly if occurring post carotid endarterectomy.

• To preoperatively validate the degree of carotid stenosis of a patient whose previous duplex scan revealed a greater than 70% diameter reduction. The duplex is only covered when the surgeon questions the validity of the previous study and the repeat test is being performed in lieu of a carotid arteriogram.

Note: The current medical literature contains inconclusive information regarding the evaluation and monitoring of patients with asymptomatic carotid bruits. Even though the presence of bruit increases the likelihood of finding disease of extracranial carotid arteries, it does not necessarily indicate severe stenosis. Also, the predictive value of a bruit is questioned when severe disease is found in patients without a bruit.

In addition, the literature supports that the test of choice for all the above indications is the duplex scan, which is represented by procedure code 93880 and 93882.

Since, the standard for the above indications is a color-duplex scan, portable equipment must be able to produce combined anatomic and spectral flow measurements.