

Medical Policy

An Independent Licensee of the
Blue Cross and Blue Shield Association.

Title: Extracranial Carotid Angioplasty/Stenting**Professional**

Original Effective Date: July 1, 2007

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DESCRIPTION

Carotid angioplasty with or without associated stenting has been investigated as a less invasive alternative to open carotid endarterectomy (CEA), currently considered the standard treatment for patients with significantly obstructing carotid atherosclerosis (stenosis). The procedure typically takes 20–40 minutes, and is performed with the patient fully awake and without sedation. Most practitioners also use a distally placed embolic protection (DEP) device that is designed to reduce the risk of peri-procedural stroke caused by thromboembolic material dislodged during CAS.

Proposed advantages of CAS in contrast to carotid endarterectomy include:

- General anesthesia is not required
- Cranial nerve palsies are infrequent sequelae
- Simultaneous procedures may be performed on the coronary and carotid arteries

The U.S. Food and Drug Administration (FDA) has approved carotid artery stents and DEP devices from various manufacturers.

Each FDA-approved carotid stent system is indicated for patients at high risk for perisurgical complications from CEA who are symptomatic with $\geq 50\%$ stenosis, or asymptomatic with $\geq 80\%$ stenosis. CAS with these devices for patients outside these indications is an unlabeled use.

The FDA has mandated post-marketing studies for these devices, including longer follow-up for patients already reported to the FDA and additional registry studies primarily to compare outcomes as a function of clinician training and facility experience.

POLICY

Extracranial carotid artery angioplasty and stent placement (CAS) is considered medically necessary in patients who meet one or more of the following criteria:

1. Symptomatic stenosis equal to or greater than 50%, or asymptomatic stenosis equal to or > 80% in a patient at a high risk for surgery due to one or more of the following conditions:
 - a. Age > 80 years; or
 - b. Congestive heart failure (NYHA Class III/IV) and/or left ventricular ejection fraction < 30%; or
 - c. Open heart surgery needed within the next 6 weeks; or
 - d. Recent myocardial infarction (> 24 hours and < 4 weeks); or
 - e. Severe chronic obstructive pulmonary disease; or
 - f. Unstable angina (CCS class III/IV);

OR

2. Symptomatic stenosis equal to or greater than 50% or asymptomatic stenosis equal to or greater than 80% and one or more of the following conditions:
 - a. Contralateral laryngeal nerve palsy; or
 - b. Existence of lesions distal or proximal to the usual location; or
 - c. Radiation-induced stenosis following previous radiation therapy to the neck or radical neck dissection; or
 - d. Restenosis after carotid endarterectomy (CEA); or
 - e. Severe tandem lesions that may require endovascular therapy; or
 - f. Stenosis secondary to arterial dissection; or
 - g. Stenosis secondary to fibromuscular dysplasia; or
 - h. Stenosis secondary to Takayasu arteritis; or
 - i. Stenosis that is surgically difficult to access (e.g., high bifurcation requiring mandibular dislocation); or
 - j. Stenosis associated with contralateral carotid artery occlusion; or
 - k. Pseudoaneurysm;

OR

3. Inability to move the neck to a suitable position for surgery;

OR

4. Tracheostomy.

Experimental/Investigational:

Carotid artery angioplasty and stent placement (CAS) is considered experimental/investigational when the above criteria are not met, including but not limited to, the following conditions:

1. Complete occlusion (100% stenosis) of the relevant carotid artery;
2. Severe symptomatic carotid stenosis in patients not meeting the criteria above;
3. Symptomatic stenosis < 50% of the relevant carotid artery;
4. Asymptomatic stenosis < 80% of the relevant carotid artery.

Percutaneous Angioplasty (PTA) with or without associated stenting is considered experimental/investigational when used in the treatment of atherosclerotic stenosis of:

- Extracranial vertebral arteries;
- Intracranial arteries.

CODING

REVENUE CODE

CPT/HCPCS

- 37215 Transcatheter placement of intravascular stent(s), cervical carotid artery, percutaneous; with distal embolic protection
- 37216 Transcatheter placement of intravascular stent(s), cervical carotid artery, percutaneous; without distal embolic protection
- 0075T Transcatheter placement of extracranial vertebral or intrathoracic carotid artery stent(s), including radiologic supervision and interpretation, percutaneous; initial vessel
- 0076T Transcatheter placement of extracranial vertebral or intrathoracic carotid artery stent(s), including radiologic supervision and interpretation, percutaneous; each additional vessel (List separately in addition to code for primary procedure)

DIAGNOSIS

These diagnoses are otherwise subject to medical policy as stated above

- 433.10 Occlusion and stenosis of pre-cerebral arteries; carotid artery without mention of cerebral infarction
- 433.11 Occlusion and stenosis of pre-cerebral arteries; carotid artery with cerebral infarction
- 433.30 Occlusion and stenosis of pre-cerebral arteries; multiple and bilateral without mention of cerebral infarction
- 433.31 Occlusion and stenosis of pre-cerebral arteries; multiple and bilateral with cerebral infarction

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