

**Medical Coverage Policy | Carotid
Angioplasty/Stenting Without Embolic Protection**



EFFECTIVE DATE: 04|07|2005
POLICY LAST UPDATED: 06|04|2019

OVERVIEW

Carotid artery angioplasty with stenting (CAS) is a treatment for carotid stenosis that is intended to prevent future stroke. It is an alternative to medical therapy and a less invasive alternative to carotid endarterectomy (CEA).

MEDICAL CRITERIA

Not applicable

PRIOR AUTHORIZATION

Not applicable

POLICY STATEMENT

BlueCHiP for Medicare

Carotid angioplasty without associated stenting and embolic protection is not covered as the evidence is insufficient to determine the effects of the technology on health outcomes.

Commercial Products

Carotid angioplasty without associated stenting and embolic protection is considered not medically necessary as the evidence is insufficient to determine the effects of the technology on health outcomes.

COVERAGE

Benefits may vary between groups/contracts. Please refer to the appropriate Benefit Booklet, Evidence of Coverage, or Subscriber Agreement for applicable not medically necessary/not covered benefits/coverage.

BACKGROUND

Carotid artery angioplasty with stenting is a treatment for carotid stenosis that is intended to prevent future stroke. It is an alternative to medical therapy and a less-invasive alternative to carotid endarterectomy.

Combined with optimal medical management, carotid angioplasty with or without stenting has been evaluated as an alternative to carotid endarterectomy (CEA). Carotid artery stenting (CAS) involves the introduction of coaxial systems of catheters, microcatheters, balloons, and other devices. The procedure is most often performed through the femoral artery, but a transcervical approach can also be used to avoid traversing the aortic arch. The procedure typically takes 20–40 minutes. Interventionalists almost uniformly use an embolic protection device (EPD) designed to reduce the risk of stroke caused by thromboembolic material dislodged during CAS. EPDs can be deployed proximally (with flow reversal) or distally (using a filter). Carotid angioplasty is rarely performed without stent placement.

Proposed advantages of CAS over CEA include:

- General anesthesia is not used (although CEA can be performed under local/regional anesthesia)
- Cranial nerve palsies are infrequent sequelae (although almost all following CEA resolve over time)
- Simultaneous procedures may be performed on the coronary and carotid arteries

A number of carotid artery stents and embolic protection devices (EPDs) have been approved by the U.S. Food and Drug Administration (FDA) through the premarket approval or the 510(k) process.

Each FDA-approved carotid stent is indicated for combined use with an EPD to reduce risk of stroke in patients considered at increased risk for periprocedural complications from carotid endarterectomy (CEA) who are symptomatic with greater than 50% stenosis, or asymptomatic with greater than 80% stenosis with degree of stenosis assessed by ultrasound or angiogram, with computed tomography angiography also used. Patients are considered at increased risk for complications during CEA if affected by any item from a list of anatomic features and comorbid conditions included in each stent system's Information for Prescribers.

The RX Acculink™ Carotid Stent System is also approved for use in conventional risk patients (not considered at increased risk for complications during CEA) with symptoms and 70% or more stenosis by ultrasound or 50% or more stenosis by angiogram, and asymptomatic patients with 70% or more stenosis by ultrasound or 60% or more stenosis by angiogram.

FDA-approved stents and EPDs differ in the deployment methods used once they reach the target lesion, with the rapid exchange (RX) devices designed for more rapid stent and filter expansion. FDA has mandated postmarketing studies for EPDs, including longer follow-up for patients already reported to FDA and additional registry studies, primarily to compare outcomes as a function of clinician training and facility experience. Each manufacturer's system is available in various configurations (e.g., straight or tapered) and sizes (diameters and lengths) to match the vessel lumen that will receive the stent.

In February 2015, the ENROUTE™ Transcarotid NPS was cleared for marketing by FDA through the 510(k) process. ENROUTE™ is a flow-reversal device designed to be placed via direct carotid access.

On April 30, 2007, a decision memo reaffirmed the Centers for Medicare and Medicaid Services (CMS) previous decision following a request to expand coverage while clarifying that “CAS is only covered when used with an embolic protection device and is, therefore, not covered if deployment of the distal embolic protection device is not technically possible.” On October 14, 2008 in the sixth reconsideration, and on December 9, 2009 in the seventh reconsideration, CMS reaffirmed their prior coverage decisions.

Therefore, Carotid angioplasty without associated stenting and embolic protection is considered not covered for BlueCHIP for Medicare and not medically necessary for Commercial products as the evidence is insufficient to determine the effects of the technology on health outcomes.

CODING

The following code is not covered for BlueCHIP for Medicare and not medically necessary for Commercial Products:

37216 Transcatheter placement of intravascular stent(s), cervical carotid artery, percutaneous; without distal embolic protection

RELATED POLICIES

Preauthorization via Web-Based tool for Procedures

PUBLISHED

Provider Update, August 2019
Provider Update, Sep 2018
Provider Update, October 2017
Provider Update, January 2017
Provider Update, December 2015
Provider Update, January 2015
Provider Update, September 2013

REFERENCES

1. Centers for Medicare and Medicaid Services (CMS) National Coverage Analysis (NCA) for Percutaneous Transluminal Angioplasty (PTA) of the Carotid Artery Concurrent with Stenting (CAG-00085R7) [http://www.cms.gov/medicare-coverage-database/details/nca-details.aspx?NCAId=230&NcaName=Percutaneous+Transluminal+Angioplasty+\(PTA\)+of+the+Carotid+Artery+Concurrent+with+Stenting&NCDId=201&IsPopup=y&bc=AAAAAAAAAAgAAAA%3d%3d&](http://www.cms.gov/medicare-coverage-database/details/nca-details.aspx?NCAId=230&NcaName=Percutaneous+Transluminal+Angioplasty+(PTA)+of+the+Carotid+Artery+Concurrent+with+Stenting&NCDId=201&IsPopup=y&bc=AAAAAAAAAAgAAAA%3d%3d&)
2. Jordan WD, Jr., Voellinger DC, Fisher WS, et al. A comparison of carotid angioplasty with stenting versus endarterectomy with regional anesthesia. *J Vasc Surg.* Sep 1998;28(3):397-402; discussion 402-393. PMID 9737448
3. Beneficial effect of carotid endarterectomy in symptomatic patients with high-grade carotid stenosis. North American Symptomatic Carotid Endarterectomy Trial Collaborators. *N Engl J Med.* Aug 15 1991;325(7):445-453. PMID 1852179
4. Gurm HS, Yadav JS, Fayad P, et al. Long-Term Results of Carotid Stenting versus Endarterectomy in High-Risk Patients. *New England Journal of Medicine*; April 10, 2008;358:15;1572-1579.
5. Mas J, Chatellier G, Beyssen B, et al. Endarterectomy versus Stenting in Patients with Symptomatic Severe Carotid Stenosis. *NEJM*: 2007; 355:1660-1671
6. Yadav JS, Wholey MH, Kuntz RE, et al. Protected Carotid-Artery Stenting versus Endarterectomy in High-Risk Patients. *NEJM*: 2004; 351:1493-1501.
7. Arquizan C, Trinquart L, Touboul PJ, et al. Restenosis is more frequent after carotid stenting than after endarterectomy: the EVA-3S study. *Stroke.* Apr 2011; 42(4):1015-1020. PMID 21311065
8. Bonati LH, Dobson J, Featherstone RL, et al. Long-term outcomes after stenting versus endarterectomy for treatment of symptomatic carotid stenosis: the International Carotid Stenting Study (ICSS) randomised trial. *Lancet.* Oct 14 2014. PMID 25453443
9. Silver FL, Mackey A, Clark WM, et al. Safety of Stenting and Endarterectomy by Symptomatic Status in the Carotid Revascularization Endarterectomy Versus Stenting Trial (CREST). *Stroke.* Feb 9 2011. PMID 21307169
10. Lal BK, Beach KW, Roubin GS, et al. Restenosis after carotid artery stenting and endarterectomy: a secondary analysis of CREST, a randomised controlled trial. *Lancet Neurol.* Sep 2012; 11(9):755-763. PMID 22857850
11. Lee VH, Brown RD, Jr., Mandrekar JN, et al. Incidence and outcome of cervical artery dissection: a population based study. *Neurology.* Nov 28 2006; 67(10):1809-1812. PMID 17130413
12. Salzler GG, Farber A, Rybin DV, et al. The association of Carotid Revascularization Endarterectomy versus Stent Trial (CREST) and Centers for Medicare and Medicaid Services Carotid Guideline Publication on utilization and outcomes of carotid stenting among "high-risk" patients. *J Vasc Surg.* Jul 2017;66(1):104-111 e101. PMID 28502543
13. Aboyans V, Ricco JB, Bartelink MEL, et al. 2017 ESC Guidelines on the Diagnosis and Treatment of Peripheral Arterial Diseases, in collaboration with the European Society for Vascular Surgery (ESVS): Document covering atherosclerotic disease of extracranial carotid and vertebral, mesenteric, renal, upper and lower extremity arteries Endorsed by: the European Stroke Organization (ESO) The Task Force for the Diagnosis and Treatment of Peripheral Arterial Diseases of the European Society of Cardiology (ESC) and of the European Society for Vascular Surgery (ESVS). *Eur Heart J.* Mar 1 2018;39(9):763-816. PMID 28886620
14. Centers for Medicare & Medicaid Services (CMS). Decision Memo for Carotid Artery Stenting (CAG-00085R).2005; [https://www.cms.gov/medicare-coverage-database/details/nca-decisionmemo.aspx?NCAId=157&NcaName=Carotid+Artery+Stenting+\(1st+Recon\)](https://www.cms.gov/medicare-coverage-database/details/nca-decisionmemo.aspx?NCAId=157&NcaName=Carotid+Artery+Stenting+(1st+Recon)). Accessed March 27, 2018.
15. Bonati LH, Lyrer P, Ederle J, et al. Percutaneous transluminal balloon angioplasty and stenting for carotid artery stenosis. *Cochrane Database Syst Rev.* Sep 12 2012(9):CD000515. PMID 22972047

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