

**EFFECTIVE DATE:** 04|07|2005

**POLICY LAST UPDATED:** 12|06|2016

## 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 and Commercial Products

Carotid angioplasty without embolic protection is considered not medically necessary as there is insufficient peer-reviewed scientific literature that demonstrates that the procedure is effective.

## COVERAGE

Benefits may vary between groups/contracts. Please refer to the appropriate Benefit Booklet, Evidence of Coverage, or Subscriber Agreement, for applicable surgical coverage/benefits.

## 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. Carotid angioplasty and stenting 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. Embolic protection devices can be deployed proximally (with flow reversal) or distally (using a filter). Carotid angioplasty rarely is 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

The U.S. Food and Drug Administration (FDA) has approved carotid artery stents and EPDs from various manufacturers. Each FDA-approved carotid stent is indicated for combined use with an EPD to reduce risk of stroke in patients considered to be at increased risk for periprocedural complications from CEA who are symptomatic with greater than 50% stenosis, or asymptomatic with greater than 80% stenosis—degree of stenosis being assessed by ultrasound or angiogram with computed tomography (CT) angiography also

sometimes 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.

FDA-approved stents and EPDs differ in the deployment methods used once they reach the target lesion, with the RX (rapid exchange) devices designed for more rapid stent and filter expansion. The FDA has mandated postmarketing 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. 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.

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.

## **CODING**

### **BlueCHiP for Medicare and Commercial Products**

The following CPT code is not medically necessary:

**37216**

## **RELATED POLICIES**

Preauthorization via Web-Based tool for Procedures

## **PUBLISHED**

Provider Update, January 2017

Provider Update, December 2015

Provider Update, January 2015

Provider Update, September 2013

Provider Update, December 2012

Provider Update, May 2011

Provider Update, June 2010

Provider Update, June 2009

Provider Update, September 2008

## **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. CMS. Intracranial Percutaneous Transluminal Angioplasty (PTA) with Stenting. January 5, 2007; Transmittal 64: Change Request 5432
3. American College of Cardiology. 2007 Clinical Expert Consensus Document on Carotid Stenting. Journal American College of Cardiology; 2007;49:126-170. <http://www.acc.org>
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 32. 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
10. 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

[CLICK THE ENVELOPE ICON BELOW TO SUBMIT COMMENTS](#)

This medical policy is made available to you for informational purposes only. It is not a guarantee of payment or a substitute for your medical judgment in the treatment of your patients. Benefits and eligibility are determined by the member's subscriber agreement or member certificate and/or the employer agreement, and those documents will supersede the provisions of this medical policy. For information on member-specific benefits, call the provider call center. If you provide services to a member which are determined to not be medically necessary (or in some cases medically necessary services which are non-covered benefits), you may not charge the member for the services unless you have informed the member and they have agreed in writing in advance to continue with the treatment at their own expense. Please refer to your participation agreement(s) for the applicable provisions. This policy is current at the time of publication; however, medical practices, technology, and knowledge are constantly changing. BCBSRI reserves the right to review and revise this policy for any reason and at any time, with or without notice. Blue Cross & Blue Shield of Rhode Island is an independent licensee of the Blue Cross and Blue Shield Association.

