Medical Policy

Blue Cross Blue Shield Blue Care Network of Michigan

Nonprofit corporations and independent licensees of the Blue Cross and Blue Shield Association

Joint Medical Policies are a source for BCBSM and BCN medical policy information only. These documents are not to be used to determine benefits or reimbursement. Please reference the appropriate certificate or contract for benefit information.

Category: Surgery

Title: Carotid Artery Bypass, ECIC (Extracranial-Intracranial Bypass)

Procedure Code(s): 61711

Description / Background

The purpose of extracranial to intracranial (EC-IC) bypass is to augment cerebral blood flow. This procedure entails connection of the superficial temporal artery (STA) or a venous conduit from the external carotid artery (ECA), to a branch of the middle cerebral artery (MCA).

EC-IC bypass carotid artery surgery has been investigated as a means of supplying arterial blood to a cerebral hemisphere when the ipsilateral internal carotid is occluded. Normally there is a rich collateral blood flow to the brain through the circle of Willis. The flow is supported side to side via the anterior communicating artery, a connection between the right and left internal carotid arteries. Front to back, and back to front flow is maintained via the paired posterior communicating arteries which connect the vertebral to the carotid circulation.

EC-IC bypass has been done in the management of inoperable (unclippable or uncoilable) carotid aneurysms. EC-IC bypass may also be necessary in the management of individuals with Moyamoya disease (internal carotid artery occlusion with characteristic telangiectatic collateral vessel development).

Usually a burr hole is made in the temporal region of the brain overlying the middle cerebral artery. An adjacent branch of the temporal artery is then anastomosed to the middle cerebral artery. If high volume flow is needed a segment of reversed saphenous vein may be placed in a subcutaneous tunnel between the neck and the temporal burr hole. An anastomosis can then be done between the external carotid artery and the vein, and the middle cerebral artery and the vein. While all these techniques take considerable technical skill, the greatest challenge comes not from constructing a bypass, but in deciding which patients will benefit.

BCBSM/BCN Medical Policies are developed to provide general information about Blue Cross Blue Shield and Blue Care Network of Michigan medical policies. This policy is not intended to offer coverage or medical advice. This policy may be updated and is therefore subject to change.

CPT/HCPCS Level II Codes and Description

61711 Anastomosis, arterial, extracranial-intracranial (eg, middle cerebral/cortical) arteries

Diagnoses/Description

- Subarachnoid hemorrhage
- Intracerebral hemorrhage
- Other and unspecified intracranial hemorrhage
- Cerebral aneurysm, nonruptured
- Moyamoya disease

Medical Policy Statement

EC-IC bypass has been established as a safe and effective treatment option for unclippable or unresectable internal carotid artery aneurysms, and Moyamoya disease with cerebral artery involvement.

Rationale

EC-IC bypass is a viable option for the treatment of patients with specific unclippable or unresectable aneurysms because the patient would otherwise have no treatment option available. The natural course of symptomatic aneurysms is progressive neurologic deterioration and/or death.

Medical Policy Position Summary (Non-clinical summary statement for customer use)

EC-IC bypass has been established as a safe and effective treatment option for unclippable or unresectable internal carotid artery aneurysms, and Moyamoya disease with cerebral artery involvement.

Inclusionary and Exclusionary Guidelines (Clinically based guidelines that may support individual consideration and pre-authorization decisions)

The ideal treatment for giant aneurysms is direct clipping and elimination from the cerebral circulation. However, due to calcification, severe atherosclerosis, thrombosis, or a poorly defined neck, a direct surgical approach might not be possible.

BCBSM/BCN Medical Policies are developed to provide general information about Blue Cross Blue Shield and Blue Care Network of Michigan medical policies. This policy is not intended to offer coverage or medical advice. This policy may be updated and is therefore subject to change.

Related Policies

N/A

Medicare Information

35-37 EXTRACRANIAL-INTRACRANIAL (EC-IC) ARTERIAL BYPASS SURGERY (Effective for services performed on or after March 27, 1991).

Extracranial-Intracranial (EC-IC) arterial bypass surgery is not a covered procedure when it is performed as a treatment for ischemic cerebrovascular disease of the carotid or middle cerebral arteries, which includes the treatment or prevention of strokes. The premise that this procedure which bypasses narrowed arterial segments improves the blood supply to the brain and reduces the risk of having a stroke has not been demonstrated to be any more effective than no surgical intervention. Accordingly, EC-IC arterial bypass surgery is not considered reasonable and necessary within the meaning of §1862(a) (1) of the Act when it is performed as a treatment for ischemic cerebrovascular disease of the carotid or middle cerebral arteries.

(The above Medicare information is current as of the review date for this policy. However, the coverage issues and policies maintained by the Centers for Medicare & Medicare Services [CMS, formerly HCFA] are updated and/or revised periodically. Therefore, the most current CMS information may not be contained in this document. For the most current information, the reader should contact an official Medicare source.)

References

- *Extracranial-Intracranial Bypass To Reduce the Risk of Ischemic Stroke.* Technology Assessment Report abstract. Agency for Health Care Policy and Research, Rockville, MD; http://www.ahrq.gov/clinic/ecic2.htm.
- http://mcns10.med.nyu.edu/cases/SSbypass/SSbypass.html Jafar, Jafar J MD, Director, Division of Cerebrovascular Surgery. NYU Department of Neurosurgery; "Extracranial to Intracranial Bypass In the Treatment of Giant Cerebral Aneurysm," *Last modified June 17, 1997.*
- http://www.dcmsonline.org/jax-medicine/1998journals/november98/bypass.htm Michael J. Link, MD and Grace A. Herzog, P.A.-C. "Extracranial -- Intracranial Bypass; Technical Achievement, Controversies and Indications in the Treatment of Ischemic Stroke", *November 1998/ Jacksonville Medicine.*
- Medicare Coverage Issues Manual, Part 35, Section 37, "Extracranial-Intracranial (EC-IC) Arterial Bypass Surgery," (Effective for services performed on or after March 27, 1991).

BCBSM/BCN Medical Policies are developed to provide general information about Blue Cross Blue Shield and Blue Care Network of Michigan medical policies. This policy is not intended to offer coverage or medical advice. This policy may be updated and is therefore subject to change.

Joint BCBSM/BCN Medical Policy History

Date	Rationale
5/22/02	Joint policy established
11/18/03	Policy retired. See comment below.

Next Review: This is an established policy and no longer subject to periodic review

Pre-Consolidation Medical Policy History

Original Policy Date		Comments
BCN	N/A	Revised: N/A
BCBSM	N/A	Revised: N/A

BCBSM/BCN Medical Policies are developed to provide general information about Blue Cross Blue Shield and Blue Care Network of Michigan medical policies. This policy is not intended to offer coverage or medical advice. This policy may be updated and is therefore subject to change.