Medical Policy
Enhanced External Counterpulsation - EECP - for Chronic Stable Angina or Congestive Heart Failure

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Policy Number: 649
BCBSA Reference Number: 2.02.06

Related Policies
- Treatment of Damaged Myocardium, #424

Policy
Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity
Enhanced external counterpulsation is INVESTIGATIONAL for all indications, including but not limited to, treatment of chronic stable angina pectoris, congestive heart failure, erectile dysfunction, or ischemic stroke.

Medicare HMO BlueSM and Medicare PPO BlueSM Members
BCBSMA covers the use of ECP for patients who have been diagnosed with disabling angina (Class III or Class IV, Canadian Cardiovascular Society Classification or equivalent classification) who, in the opinion of a cardiologist or cardiothoracic surgeon, are not readily amenable to surgical intervention, such as PTCA or cardiac bypass, under the following conditions for Medicare HMO Blue and Medicare PPO Blue members in accordance with CMS NCD:
- Their condition is inoperable, or at high risk of operative complications or post-operative failure;
- Their coronary anatomy is not readily amenable to such procedures; or
- They have co-morbid states which create excessive risk.

BCBSMA does not cover all other cardiac conditions not otherwise specified as nationally covered for Medicare HMO Blue and Medicare PPO Blue members in accordance with CMS NCD:

National Coverage Determination (NCD) for External Counterpulsation (ECP) Therapy for Severe Angina (20.20)
Prior Authorization Information
Commercial Members: Managed Care (HMO and POS)
This is NOT a covered service.

Commercial Members: PPO, and Indemnity
This is NOT a covered service.

Medicare Members: HMO Blue SM
Prior authorization is NOT required.

Medicare Members: PPO Blue SM
Prior authorization is NOT required.

CPT Codes / HCPCS Codes / ICD-9 Codes
The following codes are included below for informational purposes. Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement. Please refer to the member’s contract benefits in effect at the time of service to determine coverage or non-coverage as it applies to an individual member. A draft of future ICD-10 Coding related to this document, as it might look today, is included below for your reference.

Providers should report all services using the most up-to-date industry-standard procedure, revenue, and diagnosis codes, including modifiers where applicable.

CPT Codes
There is no specific CPT code for this service.

HCPCS Codes

<table>
<thead>
<tr>
<th>HCPCS codes:</th>
<th>Code Description</th>
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<tbody>
<tr>
<td>G0166</td>
<td>External counterpulsation, per treatment session</td>
</tr>
</tbody>
</table>

ICD-9 Diagnosis Coding

<table>
<thead>
<tr>
<th>ICD-9-CM diagnosis codes:</th>
<th>Code Description</th>
</tr>
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<tbody>
<tr>
<td>413.0</td>
<td>Angina decubitus</td>
</tr>
<tr>
<td>413.1</td>
<td>Prinzmetal angina</td>
</tr>
<tr>
<td>413.9</td>
<td>Other and unspecified angina pectoris</td>
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</tbody>
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ICD-10-CM Diagnosis Coding

<table>
<thead>
<tr>
<th>ICD-10-CM diagnosis codes:</th>
<th>Code Description</th>
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<tbody>
<tr>
<td>I20.8</td>
<td>Other forms of angina pectoris</td>
</tr>
<tr>
<td>I20.1</td>
<td>Angina pectoris with documented spasm</td>
</tr>
<tr>
<td>I20.9</td>
<td>Angina pectoris, unspecified</td>
</tr>
<tr>
<td>I25.111</td>
<td>Atherosclerotic heart disease of native coronary artery with angina pectoris with documented spasm</td>
</tr>
<tr>
<td>I25.118</td>
<td>Atherosclerotic heart disease of native coronary artery with other forms of angina pectoris</td>
</tr>
<tr>
<td>I25.119</td>
<td>Atherosclerotic heart disease of native coronary artery with unspecified angina pectoris</td>
</tr>
<tr>
<td>I25.701</td>
<td>Atherosclerosis of coronary artery bypass graft(s), unspecified, with angina pectoris with</td>
</tr>
</tbody>
</table>
Enhanced external counterpulsation (EECP) has been studied primarily in patients with refractory angina and congestive heart failure. It uses timed, sequential inflation of pressure cuffs on the calves, thighs, and buttocks to augment diastolic pressure, decrease left ventricular afterload, and increase venous return. Augmenting diastolic pressure displaces a volume of blood backward into the coronary arteries during diastole when the heart is in a state of relaxation and the resistance in the coronary arteries is at a minimum. The resulting increase in coronary artery perfusion pressure may enhance coronary collateral development or increase flow through existing collaterals. In addition, when the left ventricle contracts, it faces a reduced aortic pressure to work against, since the counterpulsation has somewhat emptied the aorta.

Intra-aortic balloon counterpulsation is a more familiar, invasive form of counterpulsation that is used as a method of temporary circulatory assistance for the ischemic heart, often after an acute myocardial
infarction. In contrast, EECP is thought to provide a permanent effect on the heart by enhancing the development of coronary collateral development. The multiple components of the procedure include the use of the device itself, finger plethysmography to follow the blood flow, continuous electrocardiograms (EKGs) to trigger inflation and deflation, and optional use of pulse oximetry to measure oxygen saturation before and after treatment.

Examples of external counterpulsation devices for use in the treatment of patients with congestive heart failure, stable or unstable angina pectoris, acute myocardial infarction, or cardiogenic shock include The EECP Therapy System Model TS3 with Pulse Oximetry from Vasomedical, Inc., and the CardiAssist Counterpulsation System and CardiAssist ECP System from Cardiomedics, Inc. All external counterpulsation devices for all indications, including but not limited to, treatment of chronic stable angina pectoris, congestive heart failure, erectile dysfunction, or ischemic stroke are considered investigational regardless of the commercial name, the manufacturer or FDA approval status.

Summary
The single randomized controlled trial (RCT) evaluating the efficacy of enhanced external counterpulsation (EECP) in the treatment of stable angina is insufficient to draw conclusions about net health outcome in these patients. Additional RCTs address intermediate measures in stable angina and do not address longer-term, patient-oriented aspects of quality of life, mortality, or morbidity. The modest benefit seen in the single RCT directed toward EECP in heart failure has not been supported by other evidence of sufficient quality to recommend its use. Additional research into the use of EECP for other ischemic conditions such as stroke, central retinal artery occlusion, and erectile dysfunction are inadequate to draw conclusions about impact on net health outcome. Thus, this technology is considered investigational.

Policy History

<table>
<thead>
<tr>
<th>Date</th>
<th>Action</th>
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<tbody>
<tr>
<td>7/2014</td>
<td>Updated Coding section with ICD10 procedure and diagnosis codes, effective 10/2015.</td>
</tr>
<tr>
<td>4/2010</td>
<td>BCBSA National medical policy review. No changes to policy statements.</td>
</tr>
<tr>
<td>1/2009</td>
<td>BCBSA National medical policy review. No changes to policy statements.</td>
</tr>
<tr>
<td>8/2008</td>
<td>BCBSA National medical policy review. No changes to policy statements.</td>
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Information Pertaining to All Blue Cross Blue Shield Medical Policies
Click on any of the following terms to access the relevant information:
Medical Policy Terms of Use
Managed Care Guidelines
Indemnity/PPO Guidelines
Clinical Exception Process
References


