



Subject: Enhanced External Counterpulsation (EECP)*

Effective Date: August 1, 1999

Department(s): Utilization Management

Policy: EECP is reimbursable under Plans administered by QualCare, Inc.

Objective: To ensure proper and consistent reimbursement for a medically necessary service.

Procedure: Requests for EECP must be accompanied by documentation of medical therapy that has not adequately controlled severe chronic stable angina pectoris (New York Heart Association Functional Class III or Class IV) and that the patient is not a candidate for angioplasty or other revascularization.

1. If the patient meets the criteria above, EECP will be authorized as one-hour treatments up to 5 times per week up to a total of 35 treatments.
2. Repeat courses of EECP are reimbursable under the following circumstances:
 - a. There has been improvement in Functional Class
 - OR**
 - b. There has been at least a 25% decrease in frequency of anginal symptoms
 - AND**
 - c. At least 3 months have elapsed since completion of a prior course of EECP.

3. The correct code is **G0166** until this is superseded by a permanent CPT code.

References

Tecson KM, Silver MA, Brune SD, Cauthen C, Kwan MD, Schussler JM, et al. Impact of Enhanced External Counterpulsation on Heart Failure Rehospitalization in Patients With Ischemic Cardiomyopathy. *Am J Cardiol*. 2016;117(6):901-5(Mar)

Fihn SD, Blankenship JC, Alexander KP, Bittl JA, Byrne JG, Fletcher BJ, et al. 2014 ACC/AHA/AATS/PCNA/SCAI/STS focused update of the guideline for the diagnosis and management of patients with stable ischemic heart disease: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines, and the American Association for Thoracic Surgery, Preventive Cardiovascular Nurses Association, Society for Cardiovascular Angiography and Interventions, and Society of Thoracic Surgeons. *J Am Coll Cardiol*. 2014;64(18):1929-49(Nov)

Lin S, Liu M, Wu B, Hao Z, Yang J, Tao W. External counterpulsation for acute ischaemic stroke. *Cochrane Database Syst Rev*. 2012 Jan 18;1:CD009264

Fihn SD, Gardin JM, Abrams J, Berra K, et al. 2012 ACCF/AHA/ACP/AATS/PCNA/SCAI/STS Guideline for the Diagnosis and Management of Patients With Stable Ischemic Heart Disease. *JACC*. 2012;60(24)(Dec)

Manchanda A, Aggarwal A, Aggarwal N, Soran O. Management of Refractory Angina Pectoris. *Cardiology J*. 2011;18(4):343-51

Shah SA, Shapiro RJ, Mehta R, et al. Impact of enhanced external counterpulsation on Canadian Cardiovascular Society angina class in patients with chronic stable angina: a meta-analysis. *Pharmacotherapy*. 2010;30:639-45.

McKenna C, McDaid C, Suekarran S, *et al*. Enhanced external counterpulsation for the treatment of stable angina and heart failure: A systematic review and economic analysis. *Health Technol Assess*. 2009;13(24):ix-xi, 1-90 (Apr)

Kumar A, Aronow WS, Vadnrkar A. Effect of enhanced external counterpulsation on clinical symptoms, quality of life, 6-minute walking distance, and echocardiographic measurements of left ventricular systolic function after 35 days of treatment and at 1-year follow up in 47 patients with chronic refractory angina pectoris. *Am J Ther* 2009;16(2):116-118 (Mar-Apr)

Soran O. Treatment options for refractory angina pectoris: Enhanced external counterpulsation therapy. *Curr Treat Options Cardiovasc Med* 2009;11(1):54-60 (Feb)

Esmaeilzadeh M, Khaledifar A, Maleki M, *et al.* Evaluation of left ventricular systolic and diastolic regional function after enhanced external counter pulsation therapy using strain rate imaging. *Eur J Echocardiogr* 2009;10(1):120-126 (Jan)

Erdling A, Bondesson S, Pettersson T, *et al.* Enhanced external counter pulsation in treatment of refractory angina pectoris: Two year outcome and baseline factors associated with treatment failure. *BMC Cardiovasc Disord* 2008 Dec 8;8:39

Campbell AR, Satran D, Zenovich AG, *et al.* Enhanced external counterpulsation improves systolic blood pressure in patients with refractory angina. *Am Heart J* 2008;156(6):1217-222 (Dec)

Hayes, Inc. Hayes Directory. *External Counterpulsation*. Lansdale, PA:Hayes, Inc.; June 24, 2008

Michaels AD, Raisinghani A, Soran O *et al.* The effects of enhanced external counterpulsation on myocardial perfusion in patients with stable angina: a multicenter radionuclide study. *Am Heart J*. 2005;150(5):1066-1073 (Nov)

Morrow DA, Gersh BJ, Braunwald E. Chronic Coronary Artery Disease. Ch 50 in Zipes DP, Libby P, Bonow RO, Braunwald E, eds. *Braunwald's Heart Disease: A Textbook of Cardiovascular Medicine*, 7th ed. Philadelphia. Elsevier. 2005 p. 1308

Linnemeir G, Rutter MK, Barsness G, *et al.* Enhanced External Counterpulsation for the relief of angina in patients with diabetes: safety, efficacy and 1-year clinical outcomes. *Am Heart J*. 2003;146(3):453-458 (Sep)

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*Consistent with Summary Plan Description (SPD). When there is discordance between this policy and the SPD, the provisions of the SPD prevail.