



Clinical Medical Policy Thoracic Electrical Bioimpedance

Benefit Coverage:

Covered when conditional criteria are met.

Description:

Hemodynamic measurements of cardiac output (CO) using thoracic electrical bioimpedance (TEB) devices are a simple and readily reproducible noninvasive technique.

Coverage Determination:

Thoracic Electrical Bioimpedance (TEB) is a covered procedure when the criteria indicated are met.

TEB is non-covered when used for patients:

- a) with proven or suspected disease involving severe regurgitation of the aorta
- b) with minute ventilation (MV) sensor function pacemakers, since the device may adversely affect the functioning of the pacemaker
- c) during cardiac bypass surgery
- d) in the management of all forms of hypertension (with the exception of drug-resistant hypertension as outlined below)

Criteria:

TEB is covered for the following uses:

- a) Differentiation of cardiogenic from pulmonary causes of acute dyspnea when medical history, physical examination, and standard assessment tools provide insufficient information, and the treating physician has determined that TEB hemodynamic data are necessary for appropriate management of the patient.
- b) Optimization of atrioventricular (AV) interval for patients with AV sequential pacemakers when medical history, physical examination, and standard assessment tools provide insufficient information, and the treating physician has determined that TEB hemodynamic monitoring data are necessary for appropriate management of the patient.
- c) Monitoring of continuous inotropic therapy for patients with terminal congestive heart failure when those patients have chosen to die with comfort at home, or for patients waiting at home for a heart transplant.
- d) Evaluation for rejection in patients with a heart transplant as a predetermined alternative to myocardial biopsy. Medical necessity must be documented should a biopsy be performed after TEB.
- e) Optimization of fluid management in patients with congestive heart failure when medical history, physical examination, and standard assessment tools provide insufficient information, and the treating physician has determined that TEB hemodynamic data are necessary for appropriate management of the patient.



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All other uses of TEB not otherwise specified remain non-covered.

Covered Procedures:

CMP Number: CMP-021

CMP Cross Reference:

References:

Medicare National Coverage Determinations Manual

20-16 Cardiac Output Monitoring by Thoracic Electrical Bioimpedance (TEB) (rev. 1/23/04)

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