

Policy: MP100

Section: Medical Benefit Policy

Subject: Cardiac Monitoring by Thoracic Electrical Bioimpedance

I. Policy: Cardiac Monitoring by Thoracic Electrical Bioimpedance

II. Purpose/Objective:

To provide a policy of coverage regarding Cardiac Monitoring by Thoracic Electrical Bioimpedance

III. Responsibility:

- A. Medical Directors
- B. Medical Management

IV. Required Definitions

1. Attachment – a supporting document that is developed and maintained by the policy writer or department requiring/authoring the policy.
2. Exhibit – a supporting document developed and maintained in a department other than the department requiring/authoring the policy.
3. Devised – the date the policy was implemented.
4. Revised – the date of every revision to the policy, including typographical and grammatical changes.
5. Reviewed – the date documenting the annual review if the policy has no revisions necessary.

V. Additional Definitions

Medical Necessity or Medically Necessary means Covered Services rendered by a Health Care Provider that the Plan determines are:

- a. appropriate for the symptoms and diagnosis or treatment of the Member's condition, illness, disease or injury;
- b. provided for the diagnosis, and the direct care and treatment of the Member's condition, illness disease or injury;
- c. in accordance with current standards of good medical treatment practiced by the general medical community.
- d. not primarily for the convenience of the Member, or the Member's Health Care Provider; and
- e. the most appropriate source or level of service that can safely be provided to the Member. When applied to hospitalization, this further means that the Member requires acute care as an inpatient due to the nature of the services rendered or the Member's condition, and the Member cannot receive safe or adequate care as an outpatient.

Medicaid Business Segment

Medical Necessity shall mean a service or benefit that is compensable under the Medical Assistance Program and if it meets any one of the following standards:

- (i) The service or benefit will, or is reasonably expected to, prevent the onset of an illness, condition or disability.
- (ii) The service or benefit will, or is reasonably expected to, reduce or ameliorate the physical, mental or development effects of an illness, condition, injury or disability.
- (iii) The service or benefit will assist the Member to achieve or maintain maximum functional capacity in performing daily activities, taking into account both the functional capacity of the Member and those functional capacities that are appropriate for members of the same age.

DEFINITION:

Thoracic Electrical Bioimpedance (TEB) is a non-invasive method of measuring cardiac output based on detection of changes in impedance caused by the electrical conductivity of blood that occurs as blood is pumped into the aorta. The procedure is intended as an alternative to invasive cardiac output measurement techniques.

MEDICARE/MEDICAID BUSINESS SEGMENTS**INDICATIONS: Coverage limited to Medicare and Medicaid Business Segment per the applicable CMS Mandates.**

Covered Indications:

- 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 insured individual.
- b. Optimization of atrioventricular (A/V) interval for insured individuals with A/V sequential cardiac pacemakers 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.
- c. Monitoring of continuous inotropic therapy for insured individuals 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 insured individuals with a heart transplant as a predetermined alternative to a 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 insured individual.

LIMITATIONS:

1. TEB is not covered when used to treat individuals with:
 - a. Documented evidence of 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 that type of pacemaker;
 - c. During cardiac bypass surgery; or
 - d. In the management of all forms of hypertension with the exception of drug resistant hypertension
2. All other uses of TEB not otherwise specified are not covered.
3. Regardless of the number of measurements to monitor acute interventions, Medicare and Medicaid will reimburse this service once per day.
4. Procedure must be ordered by the treating physician, and that physician must document that its use aids in the management of the patient.
5. The service will not be payable when used for monitoring during anesthesia or other diagnostic or therapeutic procedure.

EXCLUSIONS:

There is insufficient published peer reviewed medical literature to support the efficacy of thoracic electrical bioimpedance for cardiac monitoring. For all lines of business except Medicare and Medicaid, thoracic electrical bioimpedance is considered **experimental, investigational or unproven**. The benefit for Medicare and Medicaid members will be in accordance to CMS mandated coverage as outlined in the current coverage determination.

Medicaid Business Segment:

Any requests for services, that do not meet criteria set in the PARP, may be evaluated on a case by case basis.

Note: A complete description of the process by which a given technology or service is evaluated and determined to be experimental, investigational or unproven is outlined in MP 15 - Experimental Investigational or Unproven Services or Treatment.

CODING ASSOCIATED WITH: Cardiac Monitoring by Thoracic Electrical Bioimpedance

The following codes are included below for informational purposes and may not be all inclusive. Inclusion of a procedure or device code(s) does not constitute or imply coverage nor does it imply or guarantee provider reimbursement. Coverage is determined by the member specific benefit plan document and any applicable laws regarding coverage of specific services.

CPT/HCPCS Codes

93701 Bioimpedance, thoracic, electrical

ICD10 Codes

I10, I11.0, I11.9, I12.0, I12.9, I13.0, I13.10, I13.11, I13.2, I15.0, I15.1, I15.2, I15.8, I15.9, I27.0, I27.1, I27.20, I27.21, I27.22, I27.23, I27.24, I27.29, I27.81, I27.82, I27.83, I27.89, I42.0, I42.1, I42.2, I42.5, I42.7, I42.8, I43, I50.1, I50.21, I50.22, I50.23, I50.30, I50.31, I50.32, I50.33, I50.40, I50.41, I50.42, I50.43, I50.9, J80, J96.00, J96.01, J96.02, J96.21, J96.22, O90.3, R06.01, R06.02, R06.03, Z48.21, Z48.280, Z94.1, Z94.3, A18.84

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LINE OF BUSINESS:

Eligibility and contract specific benefits, limitations and/or exclusions will apply. Coverage statements found in the line of business specific benefit document will supersede this policy. For Medicare, applicable LCD's and NCD's will supersede this policy. For PA Medicaid Business segment, this policy applies as written.

REFERENCES:

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This policy will be revised as necessary and reviewed no less than annually.

Devised: 03/03

Revised: 2/04 (CMS Coverage Determination); 7/04 (drop prior auth); 7/05 (update reference); 7/06 (limitations/coding); 7/07 (updated indications and Limitation section); 7/08, 7/15 (revised Limitations)

Reviewed: 7/09, 7/10, 7/11, 7/12, 7/13, 7/14, 7/16, 6/17, 6/18, 6/19, 6/20, 6/21, 6/22

Geisinger Health Plan may refer collectively to health care coverage sponsors Geisinger Health Plan, Geisinger Quality Options, Inc., and Geisinger Indemnity Insurance Company, unless otherwise noted. Geisinger Health Plan is part of Geisinger, an integrated health care delivery and coverage organization.

Coverage for experimental or investigational treatments, services and procedures is specifically excluded under the member's certificate with Geisinger Health Plan. Unproven services outside of an approved clinical trial are also specifically excluded under the member's certificate with Geisinger Health Plan. This policy does not expand coverage to services or items specifically excluded from coverage in the member's certificate with Geisinger Health Plan. Additional information can be found in MP015 Experimental, Investigational or Unproven Services.

Prior authorization and/or pre-certification requirements for services or items may apply. Pre-certification lists may be found in the member's contract specific benefit document. Prior authorization requirements can be found at <https://www.geisinger.org/health-plan/providers/ghp-clinical-policies>

Please be advised that the use of the logos, service marks or names of Geisinger Health Plan, Geisinger Quality Options, Inc. and Geisinger Indemnity Insurance Company on a marketing, press releases or any communication piece regarding the contents of this medical policy is strictly prohibited without the prior written consent of Geisinger Health Plan. Additionally, the above medical policy does not confer any endorsement by Geisinger Health Plan, Geisinger Quality Options, Inc. and Geisinger Indemnity Insurance Company regarding the medical service, medical device or medical lab test described under this medical policy.