

**Policy: MP206**

**Section: Medical Benefit Policy**

**Subject: Electrocardiographic Body Surface Mapping**

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**I. Policy:** Electrocardiographic Body Surface Mapping

**II. Purpose/Objective:**

To provide a policy of coverage regarding Electrocardiographic Body Surface Mapping

**III. Responsibility:**

A. Medical Directors

B. Medical Management Department

**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 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.

**DESCRIPTION:**

Electrocardiographic body surface mapping, or body surface potential mapping, uses 80 or more electrodes (as many as 120) to record and measure electrocardiac activity over a much larger section of the torso than the traditional 12-lead ECG in order to provide a 3-dimensional picture of the effects of electrical currents from the heart on the body surface.

**EXCLUSIONS:** The Plan does NOT provide coverage for ECG Body Surface Mapping because it is considered experimental, investigational or unproven. Current available published data does not provide evidence to demonstrate that results of this type of testing have been proven to impact clinical management

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:**

*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. Please note that per Medicare coverage rules, only specific CPT/HCPCS Codes may be covered for the Medicare Business Segment. Please consult the CMS website at [www.cms.gov](http://www.cms.gov) or the local Medicare Administrative Carrier (MAC) for more information on Medicare coverage and coding requirements*

93799 Unlisted cardiovascular service or procedure  
Current Procedural Terminology (CPT®) © American Medical Association: Chicago, IL

**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 supercede this policy. For PA Medicaid Business segment, this policy applies as written.**

**REFERENCES:**

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Carley SD, Jenkins M, Jones KM. Body surface mapping versus the standard 12 lead ECG in the detection of myocardial infarction amongst emergency department patients: A Bayesian approach. *Resuscitation.* 2005; 64(3):309-314.

McClelland AJJ, Owens CG, Menown IBA, et al. Comparison of the 80-lead body surface map to physician and to 12-lead electrocardiogram in detection of acute myocardial infarction. *Am J Cardiol.* 2003; 92:252-257.

Self WH, Mattu A, Martin M, et al. Body surface mapping in the ED evaluation of the patient with chest pain: use of the 80-lead electrocardiogram system. *Am J Emerg Med.* 2006; 24:87-112.

Menown, I.B, Allen, J., et al. Early diagnosis of right ventricular or posterior infarction associated with inferior wall left ventricular acute myocardial infarction. *American Journal of Cardiology* (2000) 85(8):934-8.

Hoekstra JW, O'Neill BJ, Pride YB, et al. Acute detection of ST-elevation myocardial infarction missed on standard 12-lead ECG with a novel 80-lead real-time digital body surface map: primary results from the multicenter OCCULT MI trial. *Ann Emerg Med.* 2009; 54(6):779-788.

Zeb M, Mahmoudi M, Garty F, et al. Detection of regional myocardial ischaemia by a novel 80-electrode body surface Delta map in patients presenting to the emergency department with cardiac-sounding chest pain. *Eur J Emerg Med.* Apr 2014;21(2):89-97

Daly MJ, Finlay DD, Scott PJ, et al. Pre-hospital body surface potential mapping improves early diagnosis of acute coronary artery occlusion in patients with ventricular fibrillation and cardiac arrest. *Resuscitation.* Jan 2013;84(1):37-41.

O'Neil, B., Hoekstra, J., Pride, Y., Lefebvre, C., Diercks, D., Frank-Peacock, W., et. al. Incremental benefit of 80-lead electrocardiogram body surface mapping over the 12-lead electrocardiogram in the detection of acute coronary syndromes in patients without ST-elevation myocardial infarction: Results from the Optimal Cardiovascular Diagnostic Evaluation Enabling Faster Treatment of Myocardial Infarction (OCCULT MI) trial. *Academy of Emerging Medicine* 2010; 17(9):932-9.

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

**Devised:** 10/2007

**Revised:**

**Reviewed:** 10/08, 10/09, 9/10, 8/11, 8/12, 8/13, 8/14; 8/15; 7/16, 7/17, 6/18