

Geisinger Health Plan Policies and Procedure Manual

Policy: MP206

Section: Medical Benefit Policy

Subject: Electrocardiographic Body Surface Mapping

Applicable Lines of Business

Commercial	Χ	CHIP	Χ
Medicare	Χ	ACA	Х
Medicaid	Χ		

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

Medically Necessary — A service, item, procedure, or level of care that is necessary for the proper treatment or management of an illness, injury, or disability is one that:

- Will, or is reasonably expected to, prevent the onset of an illness, condition, injury or disability.
- Will, or is reasonably expected to, reduce or ameliorate the physical, mental or developmental effects of an illness, condition, injury or disability.

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 **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.

<u>Note:</u> 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.**

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.

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 or the local Medicare Administrative Carrier (MAC) for more information on Medicare coverage and coding requirements

- 93799 Unlisted cardiovascular service or procedure
- 0695T Body surface—activation mapping of pacemaker or pacing cardioverter-defibrillator lead(s) to optimize electrical synchrony, cardiac resynchronization therapy device, including connection, recording, disconnection, review, and report; at time of implant or replacement
- 0696T Body surface—activation mapping of pacemaker or pacing cardioverter-defibrillator lead(s) to optimize electrical synchrony, cardiac resynchronization therapy device, including connection, recording, disconnection, review, and report; at time of follow-up interrogation or programming device evaluation

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:

Maynard SJ, Menown IBA, Manoharan G, et al. Body surface mapping improves early diagnosis of acute myocardial infarction in patients with chest pain and left bundle branch block. Heart. 2003; 89:998-1002.

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.

Kania M, Maniewski R, Zaczek R, et al. High-resolution body surface potential mapping in exercise assessment of ischemic heart disease. Ann Biomed Eng. 2019;47(5):1300-1313.

Bai B, Li X, Yang C, et al. Prediction of atrial fibrillation using the recurrence complex network of body surface potential mapping signals. Technol Health Care. 2019 Apr 28

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, 7/19, 7/20, 7/21, 7/22, 7/23, 7/24

CMS UM Oversight Committee Approval: 12/23, 7/24

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 endors ement 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.