

Policy: MP113

Section: Medical Benefit Policy

Subject: Electrical and Electromagnetic Stimulation to Promote Wound Healing

Applicable Lines of Business

| | | | |
|------------|---|------|---|
| Commercial | X | CHIP | X |
| Medicare | X | ACA | X |
| Medicaid | X | | |

I. Policy: Electrical and Electromagnetic Stimulation to Promote Wound Healing

II. Purpose/Objective:

To provide a policy of coverage regarding Electrical and Electromagnetic Stimulation to Promote Wound Healing

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

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:

Electrical stimulation to promote wound healing involves the application of electrical current through surface electrodes placed in the wound bed and proximal to the wound. Electromagnetic therapy involves the use of a pulsed magnetic field to induce current. Electrical stimulation and electromagnetic therapy for the treatment of wounds are adjunctive therapies to be considered only when standard wound care fails to promote measurable signs of wound healing.

INDICATIONS: Requests for coverage require pre-certification by a Plan Medical Director or designee

Electrical stimulation and electromagnetic therapy for wound healing will be considered only as adjunctive therapies for chronic stage III or stage IV pressure ulcers, arterial ulcers, diabetic ulcers or venous stasis ulcers that show no measurable signs of healing after a minimum of 30 days of appropriate standard wound care.

Measurable signs of healing include:

- Decrease in wound size (surface area or volume)
- Decrease in amount of exudate
- Decrease in amount of necrotic tissue
- Increase in amount of granulation tissue

Standard wound care is defined as:

- Optimization of nutritional status; and
- Debridement to remove devitalized tissue; and
- Maintenance of a clean, moist bed of granulation tissue with appropriate moist dressings; and
- Necessary treatment of any infection that may be present

Standard wound care based on the specific type of wound also includes:

- Frequent repositioning (pressure ulcer)
- Off-loading of pressure and adequate glucose control (diabetic ulcer)
- Establishment of adequate circulation (arterial ulcer)
- Compression system (venous stasis ulcer)

LIMITATIONS:

Coverage for electrical stimulation or electromagnetic therapy for wound healing will be discontinued if:

1. Measurable signs of healing have not been demonstrated within any 30-day period of treatment; **or**
2. The wound demonstrates a 100% epithelialized wound bed

EXCLUSIONS:

The Plan does **NOT** provide coverage for the use of electrical stimulation or electromagnetic therapy for the treatment of wound types not identified under Indications because it is considered **experimental, investigational or unproven**. There is insufficient evidence in the peer-reviewed published medical literature to establish the effectiveness of this treatment on health outcomes when compared to established treatments or technologies

The Plan does **NOT** provide coverage for the use of electrical stimulation or electromagnetic therapy for wound healing not performed under clinical supervision because it is considered **experimental, investigational or unproven**

The Plan does **NOT** provide coverage for the use of anodyne infrared therapy as a treatment for cutaneous ulcers, diabetic neuropathy and musculoskeletal conditions because it is considered **experimental, investigational or unproven**. Although the device is FDA approved, there is insufficient evidence in the peer-reviewed published medical literature to establish the effectiveness of this treatment on health outcomes when compared to established treatments or technologies. (See MP142)

Electrical stimulation devices that are used for the treatment of wounds in the home setting are NOT COVERED

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**.

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: Electrical Stimulation to Promote Wound Healing

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.

- G0281 Electrical stimulation, (unattended), to one or more areas, for chronic stage III and stage IV pressure ulcers, arterial ulcers, diabetic ulcers, and venous stasis ulcers not demonstrating measurable signs of healing after 30 days of conventional care, as part of a therapy plan of care.
- G0282 Electrical stimulation (unattended), to one or more areas, for wound care other than described in G0281
- G0295 Electromagnetic therapy, to one or more areas, for wound care other than described in G0329 or for other areas.
- G0329 Electromagnetic therapy (unattended), to one or more areas for chronic stage III and stage IV pressure ulcers, diabetic ulcers and venous stasis ulcers not demonstrating measurable signs of healing after 30 days of conventional care as part of a therapy plan of care.
- E0761 Non-thermal pulsed high frequency radiowaves, high peak power electromagnetic energy treatment device
- E0769 Electrical stimulation (unattended), to one or more areas, for chronic stage III and stage IV pressure ulcers, arterial ulcers, diabetic ulcers, and venous stasis ulcers not demonstrating measurable signs of healing after 30 days of conventional care, as part of a therapy plan of care.

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

REFERENCES:

HGSA Program Memorandum B-97-11

Winifred S. Hayes, Hayes Inc. Online, Hayes Alert. Vol. V No. 8, August 2002

ECRI, Hotline Response: Electrical stimulation for the Treatment of Chronic Wounds, 12/9/02.

Peters EJ, Lavery LA, Armstrong DG, Fleischli JG, "Electrical stimulation as an adjunct to heal diabetic foot ulcers: a randomized clinical trial", Arch Phys Med Rehabil. 2001; 82(6):721-725. PubMed 11387573

Franek A, Polak A, Kucharzewski M, "Modern application of high voltage stimulation for enhanced healing of venous crural ulceration" Med. Eng Phys. 2000;22(9):647-655. PubMed 11259933

Baker LL, Chambers R DeMuth SK, Villar F, "Effects of electrical stimulation on wound healing in patients with diabetic ulcers", Diabetes Care. 1997;20(3):405-412. PubMed 9051395

Goldman RJ, Brewley BI, Golden MA, "Electrotherapy reoxygenates inframalleolar ischemic wounds on diabetic patients: a case series", Adv Skin Wound Care. 2002;15(3):112-120. PubMed 12055444

Cukjati D Robnik-Sikonja M, et. al., "Prognostic factors in the prediction of chronic wound healing by electrical stimulation", Med Biol Eng Comput. 2001;39(5):542-550. PubMed 11712650

Dept. of Health & Human Services, Centers for Medicare & Medicaid Services, Medicare National Coverage Determinations. Pub. 100-03.

Centers for Medicare & Medicaid Services (CMS). *Medicare National Coverage Determinations Manual*. Chapter 1 - Coverage Determinations. 270.1: National Coverage Determination (NCD) Electrical Stimulation and Electromagnetic Therapy for the Treatment of Wounds. [CMS Web site.] Original: 07/01/04. (Revised: 03/19/04).

Maillard H. Innovative therapy for leg ulcers: Electrostimulation. *Ann Dermatol Venereol*. 2015;142(8-9):493-497.

Lala D, Spaulding SJ, Burke SM, et al. Electrical stimulation therapy for the treatment of pressure ulcers in individuals with spinal cord injury: a systematic review and meta-analysis. *Int Wound J*. 2016 Dec;13(6):1214-1226.

Polak A, Kloth LC, Blaszcak E, et al. The efficacy of pressure ulcer treatment with cathodal and cathodal-anodal high-voltage monophasic pulsed current: a prospective, randomized, controlled clinical trial. *Phys Ther*. 2017 Aug 1;97(8):777-789.

Khoury, C., Kotzki, S., Roustit, M., Blaise, S., Gueyffier, F., & Cracowski, J.L. Hierarchical evaluation of electrical stimulation protocols for chronic wound healing: an effect size meta-analysis. *Wound Repair and Regeneration*, 2017;25(5), 883-891

Polak A, Kucio C, Kloth LC, et al. A randomized, controlled clinical study to assess the effect of anodal and cathodal electrical stimulation on periwound skin blood flow and pressure ulcer size reduction in persons with neurological injuries. *Ostomy Wound Manage*. 2018 Feb;64(2):10-29

Chen Z, Chen ZY, Liu WH, Li GS. Electric stimulation as an effective adjunctive therapy for diabetic foot ulcer: a meta-analysis of randomized controlled trials. *Adv Skin Wound Care*. 2020 Nov;33(11):608-612.

Arora, M., Harvey, L.A., Glinsky, J.V., Nier, L., Lavrencic, L., Kifley, A., et al. Electrical stimulation for treating pressure ulcers. *Cochrane Database Syst Rev*, 2020;1 (1), CD012196

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

Devised: 7/03

Revised: 6/04 (add electromagnetic therapy); 6/05; 8/05; 8/06; 8/07

Reviewed: 8/08, 11/09, 1/11, 2/12, 2/13, 2/14, 2/15, 2/16, 2/17, 2/18, 2/19, 2/20, 2/22, 2/23, 2/24

CMS UM Oversight Committee Approval: 12/23

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.