MEDICAL POLICY

POLICY TITLE	**INTERFERENTIAL CURRENT STIMULATION**
POLICY NUMBER	**MP-6.047**

CLINICAL BENEFIT	☐ MINIMIZE SAFETY RISK OR CONCERN. ☒ MINIMIZE HARMFUL OR INEFFECTIVE INTERVENTIONS. ☐ ASSURE APPROPRIATE LEVEL OF CARE. ☐ ASSURE APPROPRIATE DURATION OF SERVICE FOR INTERVENTIONS. ☐ ASSURE THAT RECOMMENDED MEDICAL PREREQUISITES HAVE BEEN MET. ☐ ASSURE APPROPRIATE SITE OF TREATMENT OR SERVICE.
Effective Date:	**3/1/2024**

I. POLICY

Interferential current stimulation is considered **investigational** as there is insufficient evidence to support a general conclusion concerning the health outcomes or benefits associated with this procedure.

Cross-references:

MP 2.064 Biofeedback and Neurofeedback Therapy
MP 6.020 Transcutaneous Electrical Nerve Stimulation
MP 6.050 Percutaneous Electrical Nerve Stimulation (PENS) and Percutaneous Neuromodulation Therapy (PNT)

II. Product Variation

TOP

This policy is only applicable to certain programs and products administered by Capital Blue Cross and subject to benefit variations as discussed in Section VI. Please see additional information below.

FEP PPO – Refer to FEP Medical Policy Manual. The FEP Medical Policy manual can be found at:
https://www.fepblue.org/benefit-plans/medical-policies-and-utilization-management-guidelines/medical-policies.

III. DESCRIPTION/BACKGROUND

TOP

Interferential current stimulation (IFS) is a type of electrical stimulation that has been investigated as a technique to reduce pain, improve function and range of motion, and treat gastrointestinal disorders.

This stimulation uses paired electrodes of 2 independent circuits carrying high-frequency and medium-frequency alternating currents. The superficial electrodes are aligned on the skin around the affected area. It is believed that IFS permeates the tissues more effectively and with less unwanted stimulation of cutaneous nerves, is more comfortable than transcutaneous

electrical nerve stimulation. There are no standardized protocols for the use of IFS; IFS may vary by the frequency of stimulation, the pulse duration, treatment time, and electrode-placement technique.

REGULATORY STATUS

A number of IFS devices have been cleared for marketing by the U.S. Food and Drug Administration through the 510(k) process, including the Medstar™ 100 (MedNet Services) and the RS-4i® (RS Medical). Interferential current stimulation may be included in multimodal electrotherapy devices such as transcutaneous electrical nerve stimulation and functional electrostimulation.

IV. RATIONALE

TOP

Summary of Evidence

For individuals who have musculoskeletal conditions who receive IFS, the evidence includes randomized controlled trials (RCTs) and meta-analyses. Relevant outcomes are symptoms, functional outcomes, quality of life, medication use, and treatment-related morbidity. Placebo-controlled randomized trial(s) have found that IFS, when used to treat musculoskeletal pain and impaired function(s), does not significantly improve outcomes. Meta-analyses for IFS in musculoskeletal conditions have generally found IFS to be no more effective than other therapies. One network meta-analysis did find improvement with IFS compared with control, but the analysis is limited by indirect comparisons. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have gastrointestinal disorders who receive IFS, the evidence includes RCTs. Relevant outcomes are symptoms, functional outcomes, quality of life, medication use, and treatment related morbidity. Interferential current stimulation has been tested for a variety of gastrointestinal conditions, with a small number of trials completed for each condition. The results of the trials are mixed, with some reporting benefit and others not. This body of evidence is inconclusive on whether IFS is an efficacious treatment for gastrointestinal conditions. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have post stroke spasticity who receive IFS, the evidence includes RCTs. Relevant outcomes are symptoms, functional outcomes, quality of life, and treatment-related morbidity. The RCTs had a small sample sizes and very short follow-up (immediately posttreatment to 5 weeks). The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

V. DEFINITIONS

TOP

510 (K) is a premarketing submission made to FDA to demonstrate that the device to be marketed is as safe and effective, that is, substantially equivalent (SE), to a legally marketed device that is not subject to premarket approval (PMA). Applicants must compare their 510(k) device to one or more similar devices currently on the U.S. market and make and support their substantial equivalency claims.

VI. BENEFIT VARIATIONS

TOP

The existence of this medical policy does not mean that this service is a covered benefit under the member's health benefit plan. Benefit determinations should be based in all cases on the applicable health benefit plan language. Medical policies do not constitute a description of benefits. A member's health benefit plan governs which services are covered, which are excluded, which are subject to benefit limits, and which require preauthorization. There are different benefit plan designs in each product administered by Capital Blue Cross. Members and providers should consult the member's health benefit plan for information or contact Capital Blue Cross for benefit information.

VII. DISCLAIMER

TOP

Capital Blue Cross's medical policies are developed to assist in administering a member's benefits, do not constitute medical advice and are subject to change. Treating providers are solely responsible for medical advice and treatment of members. Members should discuss any medical policy related to their coverage or condition with their provider and consult their benefit information to determine if the service is covered. If there is a discrepancy between this medical policy and a member's benefit information, the benefit information will govern. If a provider or a member has a question concerning the application of this medical policy to a specific member's plan of benefits, please contact Capital Blue Cross' Provider Services or Member Services. Capital Blue Cross considers the information contained in this medical policy to be proprietary and it may only be disseminated as permitted by law.

VIII. CODING INFORMATION

TOP

Note: This list of codes may not be all-inclusive, and codes are subject to change at any time. The identification of a code in this section does not denote coverage as coverage is determined by the terms of member benefit information. In addition, not all covered services are eligible for separate reimbursement.

Investigational; therefore, not covered.

Procedure Codes								
97014	97032	G0283	S8130	S8131				

IX. REFERENCES

TOP

1. *Hussein HM, Alshammari RS, Al-Barak SS, et al. A systematic review and meta-analysis investigating the pain-relieving effect of interferential current on musculoskeletal pain. Am J Phys Med Rehabil. Aug 31 2021. PMID 34469914*
2. *Zeng C, Li H, Yang T, et al. Electrical stimulation for pain relief in knee osteoarthritis: systematic review and network meta-analysis. Osteoarthritis Cartilage. Feb 2015;23(2):189-202. PMID 25497083*
3. *National Institute for Health and Care Excellence (NICE). Low back pain and sciatica in over 16s: assessment and management [NG59]. 2016*
4. *Fuentes JP, Armijo Olivo S, Magee DJ, et al. Effectiveness of interferential current therapy in the management of musculoskeletal pain: a systematic review and meta-analysis. Phys Ther. Sep 2010;90(9):1219-1238. PMID 20651012*

5. *Kadi MR, Hepguler S, Atamaz FC, et al. Is interferential current effective in the management of pain, range of motion, and edema following total knee arthroplasty surgery? A randomized double-blind controlled trial. Clin Rehabil. Jun 2019; 33(6): 1027-1034. PMID 30764635*
6. *Alqualo-Costa R, Rampazo EP, Thome GR, et al. Interferential current and photobiomodulation in knee osteoarthritis: A randomized, placebo-controlled, double-blind clinical trial. Clin Rehabil. Oct 2021; 35(10): 1413-1427. PMID 33896234*
7. *Iacona R, Ramage L, Malakounides G. Current State of Neuromodulation for Constipation and Fecal Incontinence in Children: A Systematic Review. Eur J Pediatr Surg. Dec 2019; 29(6): 495-503. PMID 30650450*
8. *Kajbafzadeh AM, Sharifi-Rad L, Nejat F, et al. Transcutaneous interferential electrical stimulation for management of neurogenic bowel dysfunction in children with myelomeningocele. Int J Colorectal Dis. Apr 2012;27(4):453-458. PMID 22065105*
9. *Clarke MC, Chase JW, Gibb S, et al. Improvement of quality of life in children with slow transit constipation after treatment with transcutaneous electrical stimulation. J Pediatr Surg. Jun 2009;44(6):1268-1272; discussion 1272. PMID 19524752*
10. *Moore JS, Gibson PR, Burgell RE. Randomised clinical trial: transabdominal interferential electrical stimulation vs sham stimulation in women with functional constipation. Aliment Pharmacol Ther. Apr 2020; 51(8): 760-769. PMID 32128859*
11. *Coban S, Akbal E, Koklu S, et al. Clinical trial: transcutaneous interferential electrical stimulation in individuals with irritable bowel syndrome - a prospective double-blind randomized study. Digestion. Aug 2012;86(2):86-93. PMID 22846190*
12. *Koklu S, Koklu G, Ozguclu E, et al. Clinical trial: interferential electric stimulation in functional dyspepsia patients - a prospective randomized study. Aliment Pharmacol Ther. May 2010;31(9):961-968. PMID 20136803*
13. *Suh HR, Han HC, Cho HY. Immediate therapeutic effect of interferential current therapy on spasticity, balance, and gait function in chronic stroke patients: a randomized control trial. Clin Rehabil. Sep 2014;28(9):885-891. PMID 24607801*
14. *Eslamian F, Farhoudi M, Jahanjoo F, et al. Electrical interferential current stimulation versus electrical acupuncture in management of hemiplegic shoulder pain and disability following ischemic stroke-a randomized clinical trial. Arch Physiother. 2020; 10: 2. PMID 31938571*
15. *American College of Occupational and Environmental Medicine (ACOEM). Shoulder disorders. In: Hegmann KT, ed. Occupational medicine practice guidelines. Evaluation and management of common health problems and functional recovery in workers. 3rd ed. Elk Grove Village, IL: ACOEM; 2011:1-297.*
16. *Hegmann KT, Travis R, Andersson GBJ, et al. Non-Invasive and Minimally Invasive Management of Low Back Disorders. J Occup Environ Med. Mar 2020; 62(3): e111-e138. PMID 31977923*
17. *American College of Occupational and Environmental Medicine (ACOEM). Knee Disorders. In: Hegmann KT, ed. Occupational medicine practice guidelines. Evaluation and management of common health problems and functional recovery in workers. 3rd ed. Elk Grove Village, IL: ACOEM; 2011:1-503.*
18. *Chou R, Atlas SJ, Stanos SP, et al. Nonsurgical interventional therapies for low back pain: a review of the evidence for an American Pain Society clinical practice guideline. Spine (Phila Pa 1976). May 01 2009; 34(10): 1078-93. PMID 19363456*

19. *Qaseem A, Wilt TJ, McLean RM, et al. Noninvasive Treatments for Acute, Subacute, and Chronic Low Back Pain: A Clinical Practice Guideline From the American College of Physicians. Ann Intern Med. Apr 04, 2017; 166(7): 514-530. PMID 28192789*
20. *Blue Cross Blue Shield Association Medical Policy Reference Manual. 1.01.24, Interferential Current Stimulation. July, 2023*

X. POLICY HISTORY

TOP

MP-6.047	**CAC 10/25/2011 Adopted BCBSA**. New Policy, information regarding interferential stimulation removed from Electrical Stimulation policy and created in this separate policy.
	CAC 10/30/12 Consensus. References updated. No change to policy statements. Codes reviewed 10/22/12
	CAC 11/26/13 Consensus review. References updated. "For the treatment of pain" removed from the policy statement however remains investigational. Rationale added. Policy title revised to "Interferential Current Stimulation".
	CAC 11/25/14 Consensus. References and rationale updated. No change to policy statements. Coded Reviewed 11/05/2014
	CAC 11/24/15 Consensus review. No change to policy statements. Rationale and references updated. Coding reviewed**.**
	CAC 9/27/16 Consensus. No change to policy statements. References and rationale updated. Variation reformatted. Coding reviewed.
	CAC 11/28/17 Consensus. No change to policy statements. References and rationale reviewed. Coding reviewed.
	7/20/18 Consensus review. No change to the policy statement. Background and references updated. Rationale revised.
	1/1/19 Administrative update. Removed deleted CPT codes
	4/22/19 Consensus review. No change to the policy statement. References updated.
	06/10/2020 Consensus Review. No change to policy statements. References reviewed.
	4/29/2021 Consensus review. No change to policy statement. References updated. No changes to coding.
	07/12/2022 Consensus Review. No change to policy statement. Rationale and FEP language updated. References added.
	08/01/2023 Consensus Review. No change to policy statement. Background updated.
	1/19/2024 Administrative update. Clinical benefit added.

TOP