

Corporate Medical Policy

Interferential Stimulation

File Name: interferential_stimulation
Origination: 11/2003
Last Review: 10/2024

Description of Procedure or Service

Interferential current stimulation (IFS) is a type of electrical stimulation that uses paired electrodes of two independent circuits carrying high-frequency (4,000 Hz) and medium-frequency (150 Hz) 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 (TENS). Interferential stimulation has been investigated as a technique to reduce pain, improve function and range of motion (ROM), and treat a variety of gastrointestinal disorders. There are no standardized protocols for the use of interferential therapy; the therapy may vary according to the frequency of stimulation, the pulse duration, treatment time, and electrode-placement technique.

Regulatory Status

A number of interferential stimulator devices have received 510(k) marketing clearance from the U.S. Food and Drug Administration (FDA), including the Medstar™ 100 (MedNet Services) and the RS-4i® (RS Medical). IFS may be included in multimodal electrotherapy devices such as transcutaneous electrical nerve stimulation and functional electrostimulation.

Related Policies

TENS (Transcutaneous Electrical Nerve Stimulation)
Percutaneous Electrical Nerve Stimulation (PENS) or Neuromodulation Therapy and
Percutaneous Electrical Nerve Field Stimulation (PENFS)

******Note: This Medical Policy is complex and technical. For questions concerning the technical language and/or specific clinical indications for its use, please consult your physician.***

Policy

Interferential Stimulation is considered investigational for all applications. BCBSNC does not cover investigational services or procedures.

Benefits Application

This medical policy relates only to the services or supplies described herein. Please refer to the Member's Benefit Booklet for availability of benefits. Member's benefits may vary according to benefit design; therefore member benefit language should be reviewed before applying the terms of this medical policy.

Interferential Stimulation

When Interferential Stimulation is covered

Not applicable

When Interferential Stimulation is not covered

Interferential current stimulation is considered investigational.

Policy Guidelines

For individuals who have musculoskeletal conditions who receive interferential current stimulation (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 RCTs 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. IFS has been tested for a variety of gastrointestinal conditions, with a small number of trials completed for each condition. Trials results 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 poststroke spasticity who receive IFS, the evidence includes RCTs. Relevant outcomes are symptoms, functional outcomes, quality of life, and treatment-related morbidity. The RCTs had small sample sizes and very short follow-up (immediately posttreatment to five weeks). The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

Billing/Coding/Physician Documentation Information

This policy may apply to the following codes. Inclusion of a code in this section does not guarantee that it will be reimbursed. For further information on reimbursement guidelines, please see Administrative Policies on the Blue Cross Blue Shield of North Carolina web site at www.bcbsnc.com. They are listed in the Category Search on the Medical Policy search page.

Applicable service codes: S8130, S8131

BCBSNC may request medical records for determination of medical necessity. When medical records are requested, letters of support and/or explanation are often useful, but are not sufficient documentation unless all specific information needed to make a medical necessity determination is included.

Scientific Background and Reference Sources

Interferential Stimulation

BCBSA Medical Policy Reference Manual, 1.01.24, 7/17/03

Specialty Matched Consultant Advisory Panel - 6/2004

BCBSA Medical Policy Reference Manual [Electronic Version], 1.01.24, 12/14/2005

Specialty Matched Consultant Advisory Panel - 5/2006

BCBSA Medical Policy Reference Manual [Electronic Version], 1.01.24, 12/12/2006

Specialty Matched Consultant Advisory Panel - 5/2008

BCBSA Medical Policy Reference Manual [Electronic Version], 1.01.24, 10/6/2009

Specialty Matched Consultant Advisory Panel – 11/29/2010

BCBSA Medical Policy Reference Manual [Electronic Version], 1.01.24, 11/11/2010

Specialty Matched Consultant Advisory Panel – 11/2011

BCBSA Medical Policy Reference Manual [Electronic Version], 1.01.24, 12/8/2011

Specialty Matched Consultant Advisory Panel – 10/2012

BCBSA Medical Policy Reference Manual [Electronic Version], 1.01.24, 12/13/2012

Specialty Matched Consultant Advisory Panel – 10/2013

BCBSA Medical Policy Reference Manual [Electronic Version], 1.01.24, 12/12/2013

Specialty Matched Consultant Advisory Panel – 10/2014

BCBSA Medical Policy Reference Manual [Electronic Version], 1.01.24, 12/11/2014

Specialty Matched Consultant Advisory Panel – 10/2015

BCBSA Medical Policy Reference Manual [Electronic Version], 1.01.24, 6/16/2016

Specialty Matched Consultant Advisory Panel – 10/2016

BCBSA Medical Policy Reference Manual [Electronic Version], 1.01.24, 9/14/2017

Specialty Matched Consultant Advisory Panel – 10/2017

BCBSA Medical Policy Reference Manual [Electronic Version], 1.01.24, 6/14/2018

Specialty Matched Consultant Advisory Panel – 10/2018

BCBSA Medical Policy Reference Manual [Electronic Version], 1.01.24, 6/13/2019

Specialty Matched Consultant Advisory Panel – 10/2019

BCBSA Medical Policy Reference Manual [Electronic Version], 1.01.24, 6/18/2020

Interferential Stimulation

Specialty Matched Consultant Advisory Panel – 10/2020

BCBSA Medical Policy Reference Manual [Electronic Version], 1.01.24, 6/10/2021

Specialty Matched Consultant Advisory Panel – 10/2021

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

Specialty Matched Consultant Advisory Panel – 10/2022

Specialty Matched Consultant Advisory Panel – 10/2023

Medical Director Review- 10/2023

Specialty Matched Consultant Advisory Panel – 10/2024

Medical Director Review- 10/2024

Policy Implementation/Update Information

11/03 New policy.

4/8/04 Added, “Sequential stimulators that combine interferential current and muscle stimulation such as the RS-4i Sequential Stimulator are considered investigational. BCBSNC does not cover investigational services.” To the noncovered section of the policy. Statement removed from Policy Guidelines.

7/29/04 Specialty Matched Consultant Advisory Panel review 6/22/04. No changes to criteria. Format changes for consistency. References added.

6/5/06 Specialty Matched Consultant Advisory Panel review 5/3/2006. No changes to policy statement. Rationale added to “Policy Guidelines” section. References added.

12/3/07 “Next Review Date” corrected. Policy number added to “Key Word” section.

6/30/08 Specialty Matched Consultant Advisory Panel review 5/29/08. No changes to policy statement. Policy status changed to Active policy, no longer scheduled for routine literature review. (btw)

6/22/10 Policy Number(s) removed (amw)

12/21/10 Removed from “Active policy, no longer scheduled for routine literature review.” To active policy. Policy “Description” revised. Policy statements reworded no change to policy intent. “Policy Guidelines” revised. References added. Specialty Matched Consultant Advisory Panel review 11/29/2010. References added. (btw)

1/1/12 Specialty Matched Consultant Advisory Panel review 11/30/11. “Description” revised. No change to policy intent. Rationale in “Policy Guidelines” updated. Added 2012 HCPCS codes S8130 and S8131 to the “Billing/Coding” section. (btw)

4/17/12 Reference added. (btw)

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- 11/13/12 Specialty Matched Consultant Advisory Panel review 10/17/2012. Policy Guidelines updated. No change to policy intent. (btw)
- 2/12/13 Description and Policy Guidelines sections updated. No change to policy intent. Reference added. (btw)
- 11/12/13 Specialty Matched Consultant Advisory Panel review 10/16/2013. No change to policy. (btw)
- 2/25/14 Reference added. (btw)
- 11/25/14 Related Guideline added. Specialty Matched Consultant Advisory Panel review 10/28/2014. No change to Policy statement. (sk)
- 2/24/15 Reference added. (sk)
- 11/24/15 Specialty Matched Consultant Advisory Panel review 10/28/2015. (sk)
- 7/26/16 Reference added. Policy Guidelines updated. (sk)
- 11/22/16 Specialty Matched Consultant Advisory Panel review 10/26/2016. (sk)
- 11/10/17 Reference added. Specialty Matched Consultant Advisory Panel review 10/25/2017. (sk)
- 8/24/18 Reference added. (sk)
- 11/9/18 Specialty Matched Consultant Advisory Panel review 10/24/2018. (sk)
- 8/27/19 Reference added. (sk)
- 11/26/19 Specialty Matched Consultant Advisory Panel review 10/16/2019. (sk)
- 11/10/20 Reference added. Specialty Matched Consultant Advisory Panel review 10/21/2020. (sk)
- 8/10/21 Reference added. (sk)
- 11/16/21 Specialty Matched Consultant Advisory Panel review 10/20/2021. (sk)
- 5/2/23 Policy update. Reference added. Specialty Matched Consultant Advisory Panel review 10/19/2022. (sk)
- 11/7/23 Updated title of one Related Policy. References updated. Specialty Matched Consultant Advisory Panel review 10/2023. Medical Director review 10/2023. (ldh)
- 11/13/24 References updated. Specialty Matched Consultant Advisory Panel review 10/2024. Medical Director review 10/2024. (ldh)

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Medical policy is not an authorization, certification, explanation of benefits or a contract. Benefits and eligibility are determined before medical guidelines and payment guidelines are applied. Benefits are determined by the group contract and subscriber certificate that is in effect at the time services are rendered. This document is solely provided for informational purposes only and is based on research of current medical literature and review of common medical practices in the treatment and diagnosis of disease. Medical practices and knowledge are constantly changing and BCBSNC reserves the right to review and revise its medical policies periodically.