Medical Coverage Policy | Posterior Tibial Nerve Stimulation (PTNS) for Urinary Dysfunction



EFFECTIVE DATE: 12/01/2014 **POLICY LAST UPDATED:** 11/04/2014

OVERVIEW

This policy documents coverage guidelines for posterior tibial nerve stimulation (PTNS) affecting nerves and sensation as a treatment for urinary dysfunction. Posterior tibial nerve stimulation (PTNS) is a technique of electrical neuromodulation used for treating voiding dysfunction. The tibial nerve is stimulated using a fine-needle electrode inserted slightly above the ankle, and low-voltage electrical current is delivered.

PRIOR AUTHORIZATION

BlueCHiP for Medicare

Prior authorization is required for BlueCHiP for Medicare only and obtained via the online tool for participating providers. See the Related Policies section.

Commercial Products

Not Applicable

POLICY STATEMENT

BlueCHiP for Medicare:

PTNS for voiding dysfunctions, including but not limited to urinary frequency, urgency, incontinence and non-obstructive retention is covered when the criteria are met. PTNS standard treatment regimen (30-minute weekly sessions for 12 weeks once per lifetime).

Note: Medicare policy is developed separately from BCBSRI policy. Medicare policy incorporates consideration of governmental regulations from CMS (Centers for Medicare and Medicaid Services), such as national coverage determinations or local coverage determinations. In addition to benefit differences, CMS may reach different conclusions regarding the scientific evidence than does BCBSRI. Medicare and BCBSRI policies may differ. However, BlueCHiP for Medicare members must be offered, at least, the same services as Medicare offers.

Commercial:

PTNS for voiding dysfunctions, including but not limited to urinary frequency, urgency, incontinence and non-obstructive retention **is not medically necessary** as there is insufficient, long-term, peer reviewed scientific literature, including randomized controlled clinical trials to demonstrate its efficacy and to support its use.

MEDICAL CRITERIA

BlueCHiP for Medicare

PTNS will be covered for overactive bladder (OAB) symptoms for patients who are:

 Either, resistance or intolerant to standard anticholinergic/antispasmodics drug therapy (i.e., failed treatment with two anticholenergic drugs, each taken for at least 4 weeks duration, prior to the PTNS therapy initiation).

Contraindications to PTNS include any of the following:

- o A cardiac pacemaker,
- o An implantable defibrillator,

o whether the patient is prone to excessive bleeding, if the patient has nerve damage that could impact either percutaneous tibial nerve or pelvic floor function or whether the patient is pregnant or planning to become pregnant during the duration of PTNS treatment.

BACKGROUND

Percutaneous tibial nerve stimulation (PTNS) therapy is a minimally invasive neuromodulation treatment designed to provide sacral nerve stimulation through percutaneous electrical stimulation of the posterior tibial nerve. Sacral neuromodulation involves stimulation of the sacral nerve plexus which regulates bladder and pelvic floor function. In July 2005, the Urgent® PC Neuromodulation System (Uroplasty, Inc.) received 510(k) marketing clearance for percutaneous tibial nerve stimulation to treat patients suffering from urinary urgency, urinary frequency, and urge incontinence. This device was cleared as a class II "nonimplanted, peripheral nerve stimulator for pelvic floor dysfunction" because it was considered to be substantially equivalent to the previously cleared percutaneous Stoller afferent nerve system (PerQ SANS System) in 2001 (K992069, UroSurge, Inc.).

In sacral root neuromodulation, an implantable pulse generator that delivers controlled electrical impulses is attached to wire leads that connect to the sacral nerves, most commonly the S3 nerve root that modulates the neural pathways controlling bladder function. Posterior tibial nerve stimulation (PTNS) is a technique of electrical neuromodulation proposed for the treatment of voiding dysfunction including urinary frequency, urgency, incontinence, and nonobstructive retention in patients who have failed behavioral and/or pharmacologic therapies. Stimulating the posterior tibial nerve with PTNS is purported to improve voiding function and control. While the posterior tibial nerve is located near the ankle, it is derived from the lumbarsacral nerves (L4-S3), which control the bladder detrusor and perineal floor.

The procedure for PTNS consists of the insertion of a needle above the medial malleolus near the posterior tibial nerve followed by the application of low voltage (10mA, 1–10 Hz frequency) electrical stimulation that produces sensory and motor responses (i.e., a tickling sensation and flexion of the big toe and/or fanning of all the toes). Noninvasive PTNS has also been delivered with surface electrodes. PTNS studies have reported 30-minute sessions given weekly for 4–12 weeks. The usual schedule is one 30-minute session once per week for twelve weeks. Consideration has been given to increasing the frequency of treatments to 3 times per week to speed achievement of desired outcomes.

For BCBSRI Commercial members, the evidence is insufficient to permit conclusions concerning the effect of this technology on health outcomes. Randomized trials with appropriate control groups are needed to determine the durability and short- and long-term effects of PTNS on voiding dysfunction. In addition, further randomized trials are needed to determine appropriate maintenance therapy.

COVERAGE

Benefits vary between groups/contracts. Please refer to the appropriate Evidence of Coverage or Subscriber Agreement for surgery services and "not medically necessary" services benefit.

CODING

The following CPT code is covered with prior authorization when criteria are met for BlueCHiP for Medicare and not medically necessary for Commercial products:

64566

RELATED POLICIES

Preauthorization via Web-Based Tool for Procedures

PUBLISHED

Provider Update Jan 2015
Provider Update Dec 2013
Provider Update Jul 2012
Provider Update Jan 2012
Provider Update Oct 2010
Provider Update Sep 2009
Provider Update, Jun 2008
Policy Update Aug 2007

REFERENCES

1. Centers for Medicare and Medicaid Services, Local Coverage Determination (LCD) for Posterior Tibial Nerve Stimulation for Voiding Dysfunction (L31391) http://www.cms.gov/medicare-coverage-database/details/lcd-

details.aspx?LCDId=31391&ContrId=313&ver=35&ContrVer=1&CntrctrSelected=313*1&Cntrctr=313&n ame=National+Government+Services%2c+Inc.+(14412%2c+A+and+B+and+HHH+MAC%2c+J+-+K)&s=47&DocType=Active&LCntrctr=295*1&bc=AggAAAIAAAAAA%3d%3d&

- 2. Burton C, Sajja A, Latthe PM. Effectiveness of percutaneous posterior tibial nerve stimulation for overactive bladder: a systematic review and meta-analysis. Neurourol Urodyn 2012; 31(8):1206-16.
- 3. Levin PJ, Wu JM, Kawasaki A et al. The efficacy of posterior tibial nerve stimulation for the treatment of overactive bladder in women: a systematic review. Int Urogynecol J 2012; 23(11):1591-7.
- 4. Moossdorff-Steinhauser HF, Berghmans B. Effects of percutaneous tibial nerve stimulation on adult patients with overactive bladder syndrome: A systematic review. Neurourol Urodyn 2013; 32(3):206-14
- . 5. Gaziev G, Topazio L, Iacovelli V et al. Percutaneous tibial nerve stimulation (PTNS) efficacy in the treatment of lower urinary tract dysfunctions: a systematic review. BMC Urol 2013; 13:61.
- 6. Shamliyan T, Wyman J, Kane RL. Nonsurgical Treatments for Urinary Incontinence in Adult Women: Diagnosis and Comparative Effectiveness. Agency for Healthcare Research and Quality; Rockville (MD), 2012. Available online at: http://effectivehealthcare.ahrq.gov/ehc/products/169/834/urinary-incontinence-treatment-report-130909.pdf
- 7. Finazzi-Agro E, Petta F, Sciobica F et al. Percutaneous tibial nerve stimulation effects on detrusor overactivity incontinence are not due to a placebo effect: a randomized, double-blind, placebo controlled trial. J Urol 2010; 184(5):2001-6.
- 8. Peters K, MacDiarmid SA, Wooldridge LS et al. Randomized trial of percutaneous tibial nerve stimulation versus extended-release tolterodine: results from the overactive bladder innovative therapy trial. J Urol 2009; 182(3-Jan); 1055-61
- 9. MacDiarmid SA, Peters KM, Shobeiri SA et al. Long-term durability of percutaneous tibial nerve stimulation for the treatment of overactive bladder. J Urol 2010; 183(1):234-40.

10. Peters KM, Carrico DJ, Perez-Marrero P et al. Randomized trial of percutaneous tibial nerve stimulation versus sham efficacy in the treatment of overactive bladder syndrome: results from the SUmiT trial. J Urol 2010; 183(4):1438-43.

----- CLICK THE ENVELOPE ICON BELOW TO SUBMIT COMMENTS

This medical policy is made available to you for informational purposes only. It is not a guarantee of payment or a substitute for your medical judgment in the treatment of your patients. Benefits and eligibility are determined by the member's subscriber agreement or member certificate and/or the employer agreement, and those documents will supersede the provisions of this medical policy. For information on member-specific benefits, call the provider call center. If you provide services to a member which are determined to not be medically necessary (or in some cases medically necessary services which are non-covered benefits), you may not charge the member for the services unless you have informed the member and they have agreed in writing in advance to continue with the treatment at their own expense. Please refer to your participation agreement(s) for the applicable provisions. This policy is current at the time of publication; however, medical practices, technology, and knowledge are constantly changing. BCBSRI reserves the right to review and revise this policy for any reason and at any time, with or without notice. Blue Cross & Blue Shield of Rhode Island is an independent licensee of the Blue Cross and Blue Shield Association.

