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Subject: Transvaginal Radiofrequency Bladder Neck Suspension and Transurethral Radiofrequency Tissue Remodeling for Urinary Stress Incontinence

THIS MEDICAL COVERAGE GUIDELINE IS NOT AN AUTHORIZATION, CERTIFICATION, EXPLANATION OF BENEFITS, OR A GUARANTEE OF PAYMENT, NOR DOES IT SUBSTITUTE FOR OR CONSTITUTE MEDICAL ADVICE. ALL MEDICAL DECISIONS ARE SOLELY THE RESPONSIBILITY OF THE PATIENT AND PHYSICIAN. BENEFITS ARE DETERMINED BY THE GROUP CONTRACT, MEMBER BENEFIT BOOKLET, AND/OR INDIVIDUAL SUBSCRIBER CERTIFICATE IN EFFECT AT THE TIME SERVICES WERE RENDERED. THIS MEDICAL COVERAGE GUIDELINE APPLIES TO ALL LINES OF BUSINESS UNLESS OTHERWISE NOTED IN THE PROGRAM EXCEPTIONS SECTION.

[Position Statement](#)

[Billing/Coding](#)

[Reimbursement](#)

[Program
Exceptions](#)

[Definitions](#)

[Related Guidelines](#)

[Other](#)

[References](#)

[Updates](#)

DESCRIPTION:

Radiofrequency (RF) tissue remodeling with specially designed devices has been investigated as a minimally invasive treatment option for urinary stress incontinence. It involves using nonablative levels of RF energy to shrink and stabilize the endopelvic fascia.

Urinary stress incontinence is defined as the involuntary loss of urine. Treatment for SUI includes conservative therapy and surgery. Conservative therapy includes pelvic floor muscle exercises, biofeedback, pelvic electrical stimulation, or periurethral bulking agents such as collagen. Various surgical options (e.g., bladder suspension) are considered when conservative therapy fails.

Radiofrequency energy has been investigated as a technique to shrink and stabilize the endopelvic fascia, thus improving the support for the urethra and bladder neck; transvaginal and transurethral radiofrequency.

The SURx Transvaginal System[®] is a radiofrequency device that has been specifically designed as a transvaginal treatment of stress urinary incontinence (SUI) that can be performed as an outpatient procedure under general anesthesia. An incision is made through the vagina lateral to the urethra, exposing the endopelvic fascia. Radiofrequency energy is then applied over the endopelvic fascia in a slow sweeping manner, resulting in blanching and shrinkage of the tissue. In 2002, the SURx Transvaginal System received marketing clearance through the U.S. Food and Drug Administration (FDA) 510(k) process. According to the FDA, the device “is indicated for shrinkage and stabilization of female pelvic tissue for treatment of Type II stress urinary incontinence due to hypermobility in women not eligible for major corrective surgery.” As of 2006, the SURx is no longer marketed in the U.S.

The Novasys Transurethral RF System (Renessa® System, Novasys Medical, Inc.) procedure involves passing a small probe through the urethra. The treatment can be performed in the physician’s office or other outpatient setting. There are no incisions and bandages and dressings are not required. The Renessa® procedure uses radiofrequency energy (RF) to generate controlled heat at low temperatures in tissue targets within the lower urinary tract. The heat denatures collagen in the tissue at multiple small treatment sites. In 2005, Novasys Medical received clearance to market the Novasys Transurethral RF system (Renessa through the U.S. Food and Drug Administration (FDA) 510(k) process). The device is indicated for the transurethral treatment of female stress urinary incontinence due to hypermobility in women who have failed conservative treatment and who are not candidates for surgical therapy.

Summary and Analysis of Evidence: An UpToDate review “Female urinary incontinence: Treatment” (Lukacz) states that “Transurethral radiofrequency collagen denaturation has been proposed as a minimally invasive device-based intervention to treat urinary incontinence. A systematic review and meta-analysis were able to find only one trial of 173 women that assessed this technology and concluded that it was not known if radiofrequency denaturation improved urinary incontinence symptoms because that outcome was not assessed. In addition, the meta-analysis concluded that there was insufficient evidence to determine if the procedure improved disease-specific quality of life.” Limited data are available for transurethral radiofrequency collagen denaturation. The safety and long-term efficacy of transvaginal radiofrequency bladder neck suspension and transurethral radiofrequency tissue remodeling (e.g., Renessa®) on health outcomes is limited; randomized controlled studies with longer follow-up are needed.

POSITION STATEMENT:

Transvaginal radiofrequency bladder neck suspension (e.g., SURx) is considered **experimental or investigational**, as there is limited evidence in the published peer-reviewed literature that supports the use of transvaginal radiofrequency bladder neck suspension as a treatment for female stress urinary incontinence. The safety and long-term efficacy of transvaginal radiofrequency bladder neck suspension on health outcomes is limited, randomized controlled studies with longer follow-up are needed.

Transurethral radiofrequency tissue remodeling (e.g., Renessa®) is considered **experimental or investigational**, as there is limited evidence in the published peer-reviewed literature that supports the use of transurethral radiofrequency tissue remodeling (e.g., Renessa®) as a treatment for female stress urinary incontinence. The safety and long-term efficacy of transurethral radiofrequency tissue remodeling (e.g., Renessa®) on health outcomes is limited; randomized controlled studies with large sample size and longer follow-up are needed.

BILLING/CODING INFORMATION:

CPT Coding:

53860	Transurethral, radiofrequency micro-remodeling of the female bladder neck and proximal urethra for stress urinary incontinence (investigational)
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REIMBURSEMENT INFORMATION:

Refer to section entitled [POSITION STATEMENT](#).

PROGRAM EXCEPTIONS:

Federal Employee Program (FEP): Follow FEP guidelines.

State Account Organization (SAO): Follow SAO guidelines.

Medicare Advantage products: No National Coverage Determination (NCD) and/or Local Coverage Determination (LCD) were found at the time of the last guideline reviewed date.

DEFINITIONS:

No guideline specific definitions apply.

RELATED GUIDELINES:

None applicable.

OTHER:

Other names used to report transvaginal radiofrequency bladder neck suspension for urinary stress incontinence:

Lyrette System™ (transurethral stress urinary incontinence system)

SURx procedure

Transvaginal radiofrequency

Transurethral radiofrequency energy therapy (Renesa® System)

REFERENCES:

1. Abdelaziz A, Blusewicz TA, Coley KP, et al. Safety, tolerability and short-term efficacy of transvaginal fractional bipolar radiofrequency therapy for symptoms of stress and or mixed incontinence in conjunction with genitourinary syndrome of menopause. *Neurourol Urodyn.* 2023 Apr;42(4):807-813. [Abstract]
2. American College of Obstetricians and Gynecologist (ACOG) Urinary Incontinence in Women 2009.
3. Appell RA, Davila GW. Treatment options for patients with suboptimal response to surgery for stress urinary incontinence. *Current Medical Research and Opinions* 2007; 23(2): 285-292.
4. Appell RA, Juma S, Wells WG et al. Transurethral radiofrequency energy collagen micro-remodeling for the treatment of female stress urinary incontinence. *Neurourology Urodynamics* 2006; 25(4): 331-336.
5. Appell RA, Singh F, Klimberg IW et al. Nonsurgical, radiofrequency collagen denaturation for stress urinary incontinence: retrospective three-year evaluation. *Expert Review of Medical Devices* 2007; 4(4): 455-61.
6. Blue Cross Blue Shield Association Medical Policy-Transvaginal and Transurethral Radiofrequency Tissue Remodeling for Urinary Stress Incontinence 2.01.60, 03/13; policy archived 03/13.
7. Brazzelli M, Javanbakht M, Imamura M, et al. Surgical treatments for women with stress urinary incontinence: the ESTER systematic review and economic evaluation. *Health Technol Assess.* 2019 Mar;23(14):1-306.

8. Davila GW. Review Article Nonsurgical outpatient therapies for the management of female stress urinary incontinence: long-term effectiveness and durability. *Advances in Urology* 2011.
9. Dillon B, Dmochowski R. Radiofrequency for the treatment of stress urinary incontinence in women. *Current Urology Reports* 2009; 10: 369-374.
10. Dmochowski RR, Avon M, Ross J et al. Transvaginal Radio Frequency Treatment of the Endopelvic Fascia: A Prospective Evaluation for the Treatment of Genuine Stress Urinary Incontinence. *Journal of Urology* 2003; 169(3): 1028-1032.
11. Elser DM, Mitchell GK, Miklos JR et al. Nonsurgical transurethral radiofrequency collagen denaturation: Results at three years after treatment. *Advances in Urology* 2011; 2011:872057, 1-9.
12. Elser DM, Mitchell GK, Miklos JR et al. Nonsurgical transurethral collagen denaturation for stress urinary incontinence in women: 18-month results from a prospective long-term study. *Neurourology and Urodynamics* 2010; 29: 1424-1428.
13. Elser DM, Mitchell GK, Miklos JR et al. Nonsurgical transurethral collagen denaturation for stress urinary incontinence in women: 12-month results from a prospective long-term study. *Journal of Minimally Invasive Gynecology* 2009; 16(1): 56-62.
14. Elser DM. Stress urinary incontinence in women: what options lie between traditional therapies and surgery? *Women's Health* 2007; 3(6): 725-733.
15. Fulmer BR, Sakamoto K, Turk T et al. Acute and Long-Term Outcomes of Radiofrequency Bladder Neck Suspension. *Journal of Urology* 2002; 167 (1), 141-145.
16. Kang D, Han J, Neuberger MM. Transurethral radiofrequency collagen denaturation for the treatment of women with urinary incontinence. *Cochrane Database of Systematic Reviews* 2015; 18(3): CD010217.doi: 10.1002/14651858.CD010217.
17. Karliner L. California Technology Assessment Forum. Radiofrequency micro-remodeling for the treatment of female stress urinary incontinence. 10/15/08.
18. Kobashi KC, Albo ME, Dmochowski RR, et al. Surgical Treatment of Female Stress Urinary Incontinence: AUA/SUFU Guideline. *J Urol.* 2017 Oct;198(4):875-883.
19. Lenihan JP. Comparison of the quality of life after nonsurgical radiofrequency energy tissue microremodeling in premenopausal and postmenopausal women with moderate-to-severe stress urinary incontinence. *American Journal of Obstetrics and Gynecology* 2005; 192(6): 195-8; discussion 1999-2001.
20. Lukacz ES. Female urinary incontinence: Treatment. In: UpToDate, Post TW (Ed), UpToDate, Waltham, MA. (Accessed on February 14, 2024.)
21. Nygaard I, Barber MD, Burgio KL et al. Prevalence of Symptomatic Pelvic Floor Disorders in US Women. *The Journal of the American Medical Association* 2008; 300(11): 1311-1316.
22. Robinson D, Flint R, Veit-Rubin N, et al. Is there enough evidence to justify the use of laser and other thermal therapies in female lower urinary tract dysfunction? Report from the ICI-RS 2019. *Neurourol Urodyn.* 2020 Jul;39 Suppl 3:S140-S147. [Abstract]
23. Sand PK, Owens GM, Black EJ et al. Cost effectiveness of radiofrequency microremodeling for stress urinary incontinence. *Int Urogynecol J.* 2014 Apr;25(4):517-523.
24. Shamiliyan TA, Kane RL, Wyman J et al. Systematic Review: Randomized, Controlled Trials of Nonsurgical Treatments for Urinary Incontinence in Women. *Annals of Internal Medicine* 2008; 148(6): 1-14.
25. Shamliyan T, Wyman J, Kane RL. Nonsurgical Treatments for Urinary Incontinence in Adult Women: Diagnosis and Comparative Effectiveness. *Comparative Effectiveness Review No. 36.* (Prepared by the University of Minnesota Evidence-based Practice Center under Contract No. HHS 290-2007-

10064-I.) AHRQ Publication No. 11(12)-EHC074-EF. Rockville, MD. Agency for Healthcare Research and Quality. April 2012.

26. Sotomayor M, Bernal GF. Transurethral delivery of radiofrequency energy for tissue micro-remodeling in the treatment of stress urinary incontinence. *Int Urogynecol J Pelvic Floor Dysfunct.* 2003 Dec;14(6):373-9. [Abstract]
27. Stachowicz AM, Hoover ML, Karram MM. Clinical utility of radiofrequency energy for female genitourinary dysfunction: past, present, and future. *Int Urogynecol J.* 2021 Jun;32(6):1345-1350. [Abstract]
28. U.S. Food and Drug Administration (FDA) 510K. Novasys Transurethral RF System K042132, Jul 22, 2005.

COMMITTEE APPROVAL:

This Medical Coverage Guideline (MCG) was approved by the Florida Blue Medical Policy and Coverage Committee on 05/23/24.

GUIDELINE UPDATE INFORMATION:

05/15/04	New Medical Coverage Guideline.
12/15/04	Scheduled review. No change in investigational status, updated references.
01/01/06	Scheduled review. No change in investigational status. Added FDA information to description for SURx transvaginal system. Updated references.
09/15/06	Scheduled review. No change in investigational status. Updated references.
07/15/07	Annual review, investigational status maintained, description section updated, guideline reformatted, references updated.
10/15/08	Scheduled review. No change in transvaginal radiofrequency bladder neck suspension position statement. Updated title to include the text: and Transurethral Radiofrequency Tissue Remodeling. Added position statement (experimental or investigational) for transurethral radiofrequency tissue remodeling as a treatment or urinary stress incontinence. Updated references.
01/01/09	Annual HCPCS coding update: added 0193T.
08/15/09	Annual review, experimental or investigational status maintained. Revised description and position statement. Added Medicare program exception. Updated references.
08/15/10	Annual review. Updated references.
01/01/11	Annual HCPCS coding update: deleted 0193T. Added 53860. Revised Medicare Advantage products program exception.
08/15/11	Scheduled review; maintain experimental or investigational position statement. Updated references.
09/15/12	Scheduled review; position statements maintained; description section and references updated.
12/15/13	Scheduled review. No change in position statement. Added Medicare Advantage products program exception. Updated references.
11/01/15	Revision: ICD-9 Codes deleted.
09/15/17	Review; no change in position statement. Updated references.

03/15/18	Review; no change in position statement. Updated references
04/15/21	Review; no change in position statement.
06/15/23	Review; no change in position statement. Updated references.
06/15/24	Review; no change in position statement. Updated references.