**CPT 53854 Transurethral destruction of prostate tissue; by radiofrequency generated water vapor**

**Last reviewed at VbBS in November 2018. Minutes indicate that the staff recommendation was accepted without significant discussion. HERC approved the recommendations without change.**

1. Radiofrequency water vapor transurethral destruction of prostate tissue
	1. CPT **53854** Transurethral destruction of prostate tissue; by radiofrequency generated water vapor
	2. Definition: A minimally invasive treatment for lower urinary tract symptoms (LUTS) using steam energy to coagulate part of the prostate to decrease its size. This technique is known as the Rezum© system.
	3. CPT 53854 replaces HCPCS code C9748 (Transurethral destruction of prostate tissue; by radiofrequency water vapor (steam) thermal therapy to treat BPH) effective January 1, 2019. C9748 was added to line 327 FUNCTIONAL AND MECHANICAL DISORDERS OF THE GENITOURINARY SYSTEM INCLUDING BLADDER OUTLET OBSTRUCTION in May 2018 as part of the HCPCS “C” code review. The staff discussion during that review was that it was suggested for addition to line 327 “To match CPT 53852 (Transurethral destruction of prostate tissue; by radiofrequency thermotherapy), which was reviewed as part of the alternatives to TURP in March, 2015.” During that review, no evidence review of effectiveness was conducted.
	4. Similar codes are on line 327 FUNCTIONAL AND MECHANICAL DISORDERS OF THE GENITOURINARY SYSTEM INCLUDING BLADDER OUTLET OBSTRUCTION
		1. CPT 53850 Transurethral destruction of prostate tissue; by microwave thermotherapy
		2. CPT 53852 (Transurethral destruction of prostate tissue; by radiofrequency thermotherapy)
	5. Previous review: Alternatives to transurethral resection of the prostate (TURP) for lower urinary tract symptoms (LUTS) was reviewed in March, 2015 as a coverage guidance by VBBS/HERC. At that time, TUNA (Transurethral Needle Ablation of Prostate) was added for coverage. CPT 53852 is used for TUNA. The new CPT 53854 now allows separation of TUNA from the radiofrequency generated water vapor procedure. This procedure was not reviewed in the alternatives to TURP coverage guidance process. During the Alternatives to TURP review, TUMP (coded with CPT 53850) was also added for coverage.
	6. From the American Urological Association: The primary difference between each of these codes [53852 and 53850 and 53854] is the energy source used to destroy or shrink prostate tissue: 53852 uses radiofrequency energy, 53854 (Rezum) uses radiofrequency generated water vapor thermotherapy, while 53850 uses microwave energy. Otherwise, the procedures and resources used in these procedures are all very similar.
	7. Evidence
		1. **Magistero 2017,** [https://www.europeanurology.com/article/S0302-2838(17)30583-3/pdf](https://www.europeanurology.com/article/S0302-2838%2817%2930583-3/pdf) review of emerging minimally invasive procedures for LUTS
			1. Reported on 2 trials: pilot study of 30 patients, RCT of 197 men
			2. Conclusion: The first clinical experience suggests that this novel technique of prostatic ablation is able to provide rapid and meaningful relief of LUTS without compromising sexual function. Further RCTs are needed to confirm these promising first clinical results and to evaluate mid-term and long-term efficacy and safety of the Rezum system.
2. **Aoun 2015**, <https://www.dovepress.com/minimally-invasive-devices-for-treating-lower-urinary-tract-symptoms-i-peer-reviewed-fulltext-article-RRU> review of minimally invasive procedures for LUTS
	* + 1. Pilot study of 30 subjects
			2. One other study with 3 months duration published
			3. At present, this system is considered to be an investigational device, and there is one prospective, randomized, controlled, single-blind clinical trial underway in the USA (ClinicalTrials.gov identifier NCT01912339) evaluating the efficacy and safety of the Rezum system and assessing its effect on urinary symptoms secondary to BPH. The estimated study completion date is in June 2019.
	1. HERC staff summary: The Rezum system appears to be promising, and is similar to two covered procedures for LUTS. However, the literature to date indicates that this is still an experimental procedure, with further studies expected within in the next year.
	2. HERC staff recommendation:
		1. Add CPT **53854** to line 660 CONDITIONS FOR WHICH CERTAIN INTERVENTIONS ARE UNPROVEN, HAVE NO CLINICALLY IMPORTANT BENEFIT OR HAVE HARMS THAT OUTWEIGH BENEFITS
		2. Add an entry to GN173 as shown below

# GUIDELINE NOTE 173, INTERVENTIONS THAT ARE UNPROVEN, HAVE NO CLINICALLY IMPORTANT BENEFIT OR HAVE HARMS THAT OUTWEIGH BENEFITS FOR CERTAIN CONDITIONS

Line 660

The following Interventions are prioritized on Line 660 CONDITIONS FOR WHICH CERTAIN INTERVENTIONS ARE UNPROVEN, HAVE NO CLINICALLY IMPORTANT BENEFIT OR HAVE HARMS THAT OUTWEIGH BENEFITS:

| **Procedure Code** | **Intervention Description** | **Rationale** | **Last Review** |
| --- | --- | --- | --- |
| 53854 | Transurethral destruction of prostate tissue; by radiofrequency generated water vapor | Insufficient evidence of effectiveness | November 2018 |