

## Transurethral Microwave Thermotherapy

### DESCRIPTION

Transurethral microwave thermotherapy (TUMT) is an outpatient treatment for symptomatic benign prostatic hyperplasia (BPH). TUMT is a non-surgical treatment alternative to transurethral resection of the prostate (TURP). The purpose of the procedure is to relieve urinary symptoms and improve urinary function by reducing urinary obstruction that is caused by BPH. Prior to the procedure, the individual receiving the treatment is usually given cleansing enemas, prophylactic oral antibiotics, and nonsteroidal anti-inflammatory agents. Local anesthesia and sedatives are used to reduce anxiety. There is no need for general anesthesia. Treatment usually lasts from 30 to 60 minutes.

The procedure uses a urethral probe to reduce the mass of the prostate by using heat to damage the tissue and cause necrosis of the tissue. Pulses of high temperature irradiated heat are supplied via a flexible urethral probe, which destroys excess prostatic tissue. In order to prevent overheating, the system circulates cooling fluid through the urethral catheter to protect the urethral tissues from excessive heating. The microwave energy output is automatically varied during the treatment based on the information supplied by temperature sensors placed in the rectum, posterior to the prostate.

There is a risk of the catheter and/or rectal temperature sensor migrating to the wrong position during treatment, therefore the physician must insure the proper placement of these devices at all times during the procedure. Correct placement of these devices during the entire procedure is critical for the safety and effectiveness of TUMT.

### POLICY

- Transurethral microwave thermotherapy for the treatment of benign prostatic hyperplasia is considered **medically necessary** if the medical appropriateness criteria are met. **(See Medical Appropriateness below.)**
- Any device utilized for this procedure must have FDA approval specific to the indication, otherwise it will be considered **investigational**.

### See also:

- Balloon Dilatation of the Prostatic Urethra
- Transurethral Radiofrequency Needle Ablation of the Prostate (TUNA)
- Water-Induced Thermotherapy (WIT) for the Treatment of Benign Prostatic Hypertrophy

### MEDICAL APPROPRIATENESS

- Transurethral microwave thermotherapy for the treatment of benign prostatic hyperplasia is considered **medically appropriate** if **ALL** of the following are met:
  - Individuals with **ALL** of the following:
    - Are candidates for transurethral resection of the prostate, based on severity of benign prostatic hypertrophy
    - Symptomatic benign prostatic hypertrophy
    - Have a prostatic length of 35-50 mm
    - Have failed or cannot tolerate medical therapy
    - Want to avoid more invasive therapies such as TURP
  - **ABSENCE** of **ALL** of the following:
    - Prostate gland greater than 5 cm in length or larger than 70 g in volume



## Medical Policy Manual **Approved: Do Not Implement Until 12/18/09**

- Isolated median lobe enlargement
- Bladder neck stenosis
- Neurological disorders that may influence bladder function
- Renal impairment, coexisting bladder disease, upper urinary tract disease, urethral stricture, prostatitis, urinary tract infection, or bladder stones
- Presence of microwave sensitive implants (e.g., heart pacemaker, metallic prosthesis in pelvis or hip)
- Prostate or bladder cancer
- Previous surgery or radiation of the prostate, rectum, urethra, or bladder neck

### ADDITIONAL INFORMATION

The safety and efficacy of transurethral microwave thermotherapy for individuals with contraindications to this procedure has not been proven.

### SOURCES

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**EFFECTIVE DATE** 12/18/2009

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