Bipolar transurethral resection of the prostate (bTURP) for lower urinary tract symptoms secondary to benign prostatic hyperplasia

NHS Devon

Commissioning policy

The routine commissioning of bipolar transurethral resection of the prostate (bTURP) is accepted in Devon for the treatment of patients with lower urinary tract symptoms caused by benign prostatic hyperplasia.

Rationale for the decision

Lower urinary tract symptoms (LUTS) comprise of storage, voiding and post-micturition symptoms affecting the lower urinary tract. In men, the most common cause is benign prostate enlargement, which obstructs the bladder outlet. Benign prostate enlargement happens when the number of cells in the prostate increases, a condition called benign prostatic hyperplasia (BPH). LUTS are a major burden for the ageing male population. Age is an important risk factor for LUTS and the prevalence of LUTS increases as men get older. Bothersome LUTS can occur in up to 30% of men older than 65 years.

Clinically, Transurethral Resection of the Prostate (TURP) has been considered the “gold standard” treatment option for men with LUTS caused by BPH. In a TURP procedure a resection of the prostate occurs using a resectoscope which accesses the prostate via the urethra. Classically, most TURP procedures were undertaken using a monopolar system which utilises a non-conductive irrigation fluid such as glycine, an active electrode on the resectoscope and an external return electrode on the skin. Improved outcomes relating to LUTS following monopolar TURP procedures are well documented. However, adverse events such as intraoperative

bleeding and perioperative clot retention may occur when a monopolar TURP is undertaken. Monopolar TURP procedures also carry a risk of transurethral resection (TUR) syndrome, a condition which results in a range of neurological and cardiovascular symptoms and is thought to be related to excessive absorption of the non-conductive irrigation fluid used in the procedure.

In Bipolar TURP (bTURP) saline is used as an irrigation fluid, and the electrical circuit is completed with both electrodes positioned on the end of the resectoscope

Evidence from meta-analysis demonstrates that efficacy outcomes achieved are comparable between bTURP and mTURP procedures. However, bTURP results in less risk of blood transfusion and clot retention. TUR syndrome is also not observed in patients who have received a bTURP. The length of time a patient requires an indwelling urinary catheter is also significantly less when a bTURP is used in place of an mTURP. Although the procedure cost of a bTURP is greater than mTURP these benefits result in lower costs overall and patient benefits.

bTURP is one of a number of surgical options for LUTS secondary to BPH which is routinely commissioned in Devon. It is expected that a process of shared decision making is used so that patients can make an informed decision regarding which procedure is best suited to their individual needs.

Guidance notes on exceptionality

Not applicable

Date of publication:	Version:
31.10.2022	Policy agreed by NHS Devon ICB