UPDATE – Canadian Urological Association guideline: Male lower urinary tract symptoms/benign prostatic hyperplasia (MLUTS/BPH)

Dean Elterman, Mélanie Aubé-Peterkin, Howard Evans, Hazem Elmansy, Malek Meskawi, Kevin C. Zorn, Naeem Bhojani

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Disclosures

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Dr. Aube-Peterkin is an investigator for clinical Optilume trial supported by Urotronic.

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Dr. Zorn has received honoraria from Boston Scientific and as a proctor/lecturer for Greenlight; and participated in the WATER 2 supported by Procept Biorobotics.

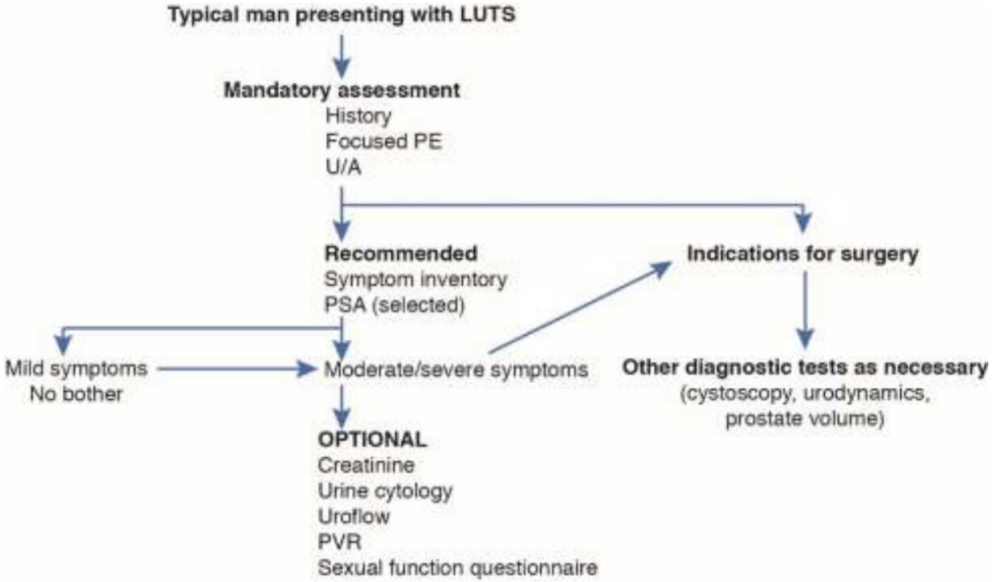
Dr. Bhojani is a consultant for Boston Scientific, Olympus,and Procept BioRobotics; and has participated in the WATER 2 trial supported by Procept BioRobotics.

Background

- These guidelines are an update of those last published in 2018
- Based on information obtained from 2010 & 2018 guidelines and literature review from 2000–2021
- Objectives:
  - Provide contemporary and up to date advice on workup and management of Canadian men aged >50 presenting with LUTS secondary to BPE, BPO, and/or other causes
  - Acknowledge that not all patients with anatomical features of a cis-male genitourinary tract, such as a prostate, identify as male

Diagnostic guidelines

Figure 1. Algorithm of appropriate diagnostic steps in the workup of a typical patient with male lower urinary tract symptoms/benign prostatic hyperplasia (LUTS/BPH). PE: physical exam; PSA: prostate-specific antigen; PVR: post-void residual; U/A: urinalysis.



Diagnostic guidelines cont'd

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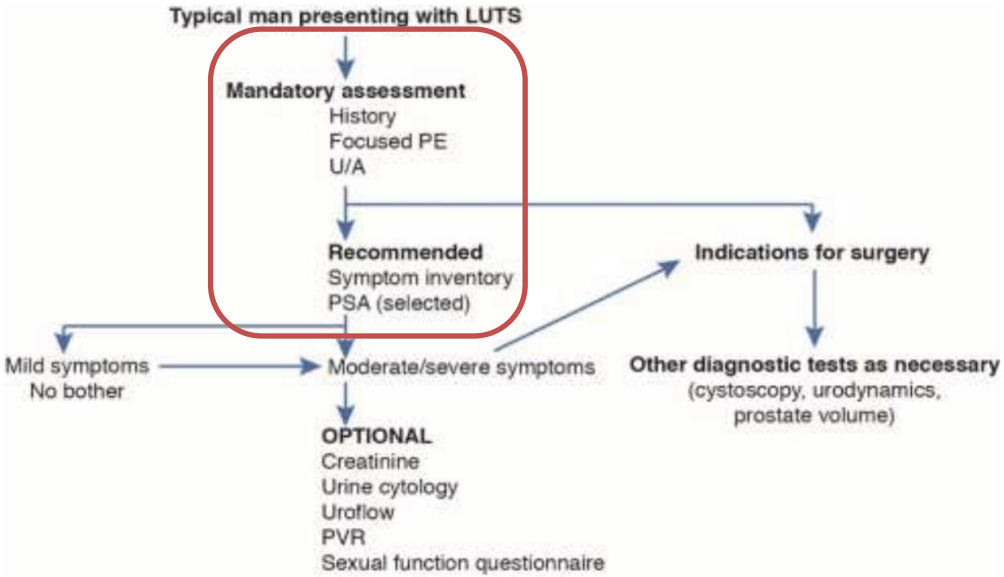


Diagnostic guidelines

- Optional
  - Serum creatinine
  - Urine cytology
  - Uroflowmetry
  - PVR
  - Voiding diary (suspected nocturnal polyuria)
  - **Obstructive sleep apnea (OSA) testing for men over 50 with nocturia (e.g., STOP BANG)****
  - Sexual function questionnaire

- Not recommended/indicated as necessary (unchanged x 2018)
  - Cytology
  - Cystoscopy
  - Urodynamics
  - Radiologic evaluation of upper tract
  - Prostate ultrasound
  - Prostate biopsy

Further considerations for surgery

- Indications for surgery
  - Recurrent/refractory retention
  - Recurrent UTIs
  - Bladder stones
  - Recurrent hematuria
  - Post-renal renal failure
  - LUTS despite medical therapy
  - Patient preference

- Preoperative testing
  - Procedure specific indications
    - Prostate volume
    - Anatomy (ex: median lobe)
    - Bladder/prostate stones
  - Cystoscopy
  - **TRUS if recent imaging not available (CT, MRI, US)****

Principles of treatment

- Mild symptoms (IPSS 1–7)
  - Lifestyle modifications & watching waiting
- Moderate (IPSS 8–19) & severe symptoms (20–35)
  - Lifestyle modifications
  - Medical, surgical and MIST therapies
- Use age, baseline LUTS, prostate volume, and PSA to identify patients at risk for progression

- Lifestyle modifications
  - Fluid restriction (esp. in HS)
  - Avoidance of bladder irritants
  - Avoidance/monitoring some drugs
  - Timed voiding/bladder retraining
  - Avoidance/treatment of constipation
  - **Weight loss and prevention/ treatment of conditions associated with metabolic syndrome****
  - **Pelvic floor physical therapy in cases of suspected pelvic floor dysfunction, OAB and/or urge incontinence****

Medical therapy

- **Since the 2018, some new evidence available with regard to medication but few new or changed recommendations**
- We recommend alpha-blockers as an excellent first-line therapeutic option for men with symptomatic bother due to BPH who desire treatment *(strong recommendation, EL A)*
- We recommend 5-ARIs (dutasteride and finasteride) as appropriate and effective treatment for patients with LUTS associated with demonstrable prostatic enlargement *(strong recommendation, EL A)*
- We recommend that the combination of an alpha-adrenergic receptor blocker and a 5-ARI as an appropriate and effective treatment strategy for patients with symptomatic LUTS associated with prostatic enlargement (>30 cc) *(strong recommendation, EL B)*
- We suggest that patients successfully treated with combination therapy maybe given the option of discontinuing the alpha-blocker. If symptoms recur, the alpha-blocker should be restarted *(conditional recommendation, EL B)*

Medical therapy

- We suggest that antimuscarinics or beta-3 agonists may be useful therapies in predominately storage symptoms and BPH with caution in those with significant BOO and/or an elevated PVR *(conditional recommendation, LE C)*
- **We suggest that alpha-blocker combination with antimuscarinics or beta-3 agonists may be useful therapies in MLUTS/BPH in men with both voiding and storage symptoms and failure of alpha blocker monotherapy *(conditional recommendation, LE B)*****
- **We recommend long-acting PDE5Is as monotherapy for men with MLUTS/BPH, particularly in men with both MLUTS and erectile dysfunction *(strong recommendation, LE B)***
- We recommend desmopressin as a therapeutic option in men with MLUTS/BPH with nocturia as result of nocturnal polyuria *(conditional recommendation, LE B)*
- We do not recommend phytotherapies as standard treatment for MLUTS/BPH *(strong recommendation, LE B)*

Surgical therapy

Small <30 cc & moderate 30–80 cc

- We recommend M-TURP as a standard first-line surgical therapy for men with moderate to severe MLUTS/BPH with prostate volume of 30–80 cc *(strong recommendation, LE A)*
- We recommend B-TURP as a standard first-line surgical therapy for men with moderate to severe MLUTS/BPH with prostate volume of 30–80 cc *(strong recommendation, LE B)*
- We recommend PVP as an alternative to M-TURP or B-TURP in men with moderate to severe LUTS (strong recommendation based on high-quality evidence). We also suggest Greenlight PVP therapy as an alternate surgical approach in men on anticoagulation or with a high cardiovascular risk *(conditional recommendation, LE B)*
- We recommend TUIP to treat moderate to severe LUTS in men with prostate volume <30 cc without a middle lobe. Patients should be made aware of the high re-treatment rate *(strong recommendation, LE B)*

Surgical therapy:
Large prostates >80 cc

- We recommend AEEP as an alternative to TURP or OSP in men with moderate to severe LUTS and any size prostate > 30 cc if performed by an AEEP-trained surgeon. AEEP can be safely performed in patients on AC/AP therapy *(strong recommendation, LE A)***
- We recommend OSP as a first-line surgical therapy when anatomic endoscopic enucleation of the prostate (AEEP) is unavailable, for men with moderate to severe MLUTS/BPH and enlarged prostate volume >80cc *(strong recommendation, LE A)***
- We recommend LSP or RASP as an alternative surgical therapy for men with moderate to severe MLUTS/BPH and enlarged prostate volume >80cc in centers where there are surgeons with high level expertise in robotics or laparoscopy *(conditional recommendation, LE B)***

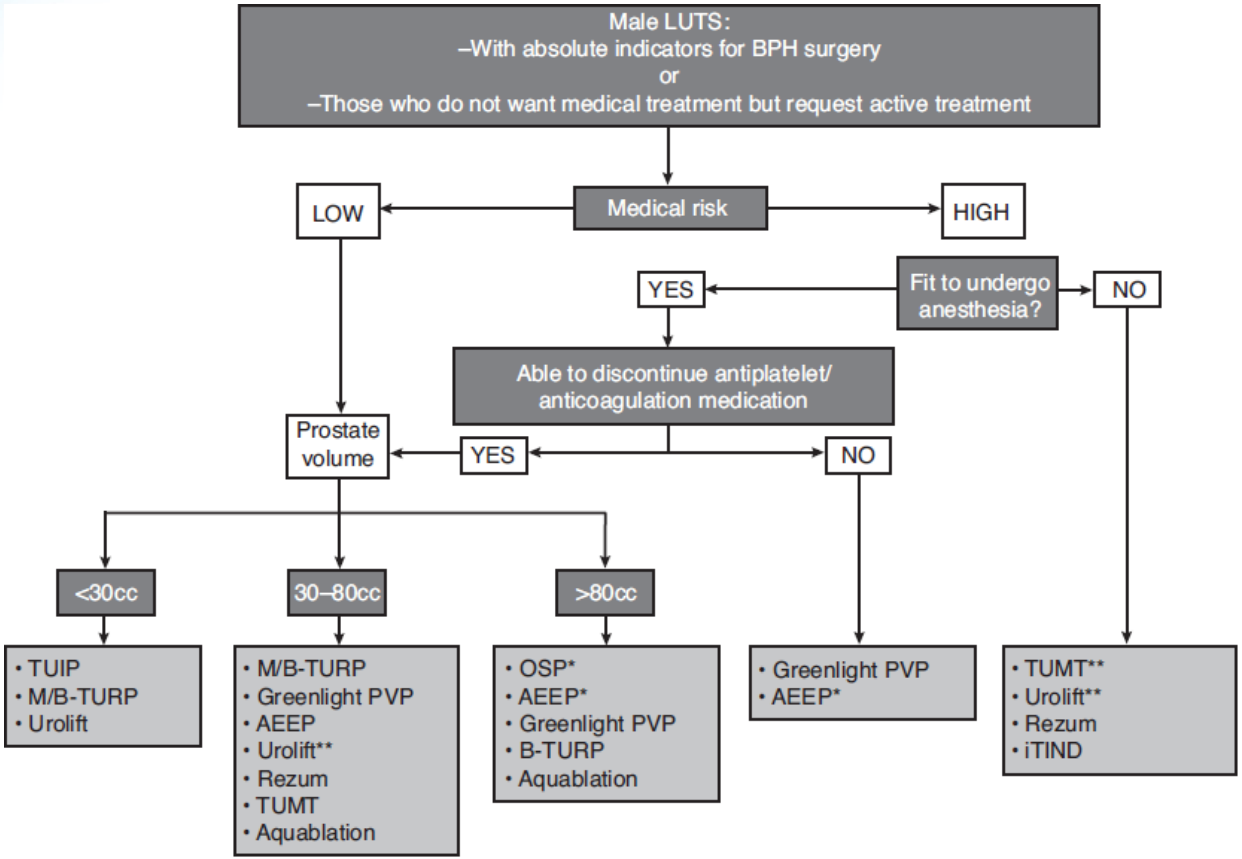
Surgical therapy: MIST

- We suggest TUMT therapy as a consideration for treatment of carefully selected, well-informed men *(conditional recommendation, LE C)*
- We suggest prostatic stents only as an alternative to catheterization in men unfit for surgery with a functional detrusor (conditional recommendation, LE C)
- **We suggest that prostatic urethral lift (Urolift) may be considered as an alternative treatment for men with LUTS interested in preserving ejaculatory function, with prostates <80 cc. Prostatic urethral lift can be also be offered to patients with a small to moderate median lobe and bothersome LUTS. Patients (with or without a median lobe) should be made aware of the higher retreatment rate at 5 years (conditional recommendation, LE C)**
- **We suggest that Rezum system of convective water vapour energy ablation may be considered an alternative treatment for men with LUTS interested in preserving ejaculatory function, with prostates <80cc, including those with a median lobe (conditional recommendation, LE C)**

Surgical therapy: MIST cont'd

- We suggest that Aquablation be offered to men with LUTS interested in preserving ejaculatory function, with prostates <u><150 cc</u>, with or without a middle lobe (conditional recommendation, LE C)
- We recommend that iTind may be offered to men with LUTS interested in preserving ejaculatory function, with prostates 30–80 cc. Patients should be made aware of the higher re-treatment rate at 3 years (conditional recommendation, LE C)**
- At centers with urological and radiological collaboration and technical expertise, highly selected, well-informed patients may be offered PAE if they wish to consider an alternative treatment option. Patients should be informed of lack of long-term durability (conditional recommendation, evidence level C)**

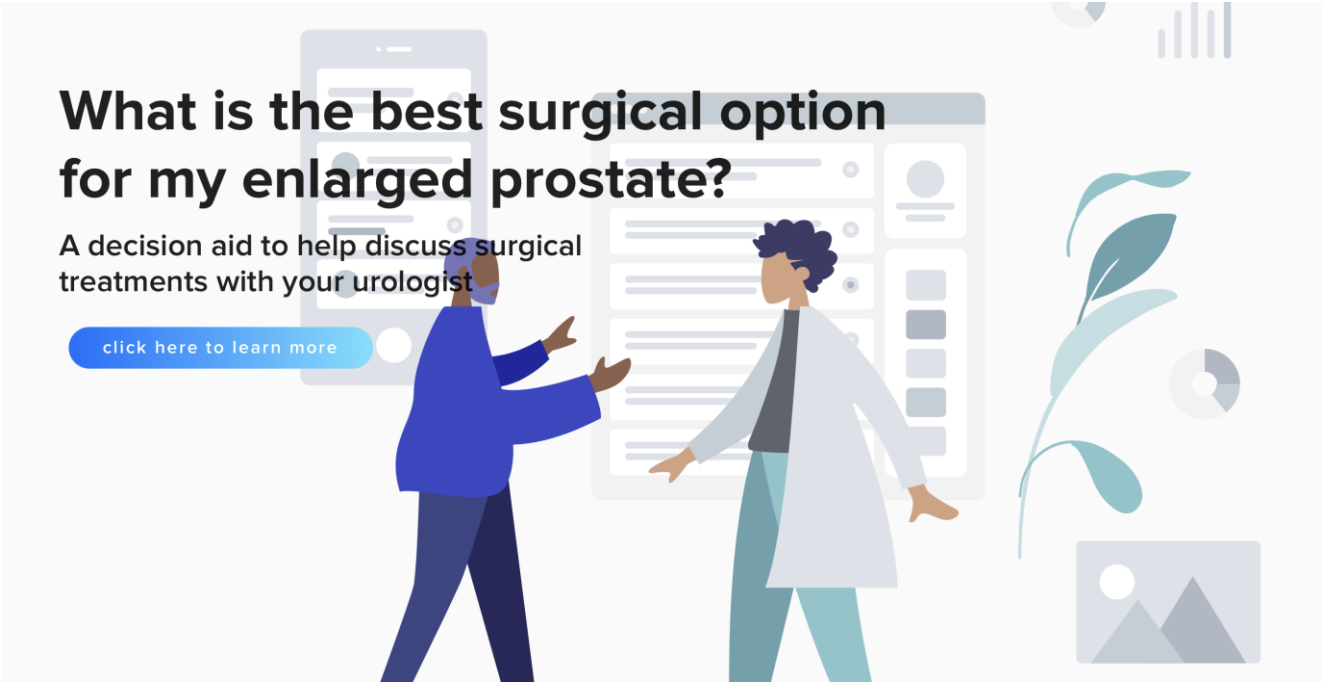
Updated surgical algorithm



CUA BPH decision aid

cua-bph-decision-aid.web.app

Shared decision-making approach for surgical BPH management



Summary

- BPH/MLUTS one of most common age-related disorders in men
- With ageing population, and new & emerging technologies, more and more men will be seeking guidance from their urologists
- These guidelines, combined with a shared decision-making approach, will aid Canadian urologists in providing state-of-the-art care to their patients