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Introduction

This is the first update of the Pocket Guidelines series. These short texts are, once again, based on the currently available extended Guidelines texts and can serve as a quick reference guide for medical professionals. The EAU considers it to be of paramount importance to continuously update its guidelines texts and introduce new data for the use of its members.

The latest versions of the Guidelines can also be viewed online at http://www.uroweb.org.

The groups that produce the texts, as well as the updates, should be commended for all their time and effort. A great deal goes into researching, writing, editing and reviewing these texts.

Board EAU Healthcare Office
March 2004
Background
Benign Prostatic Hyperplasia is the most common benign neoplasm in men. BPH is a medical condition closely related to ageing. It is not life threatening, but its clinical manifestation as lower urinary tract symptoms (LUTS) reduces patient’s quality of life. Bothersome LUTS can occur in 30% of men older than 65 years.

The prevalence of clinical BPH remains difficult to determine, and an epidemiological definition of BPH is lacking. The aetiology of BPH is multifactorial, with age, PSA and prostate volume being the true factors related to the development of the disease. A group of patients at increased risk of progression can be identified based on these specific risk factors and it might be appropriate to initiate early preventative treatment.

The need for surgery to treat BPH increases with age and with the degree of clinical symptoms at baseline. Nocturia and changes in the urinary flow stream seem to be the most predictive symptoms.

Diagnosis of BPH
Accurate and early diagnosis of BPH leads to better treatment outcomes and predetermines the treatment choice.
Recommendations for the Diagnosis of BPH

1. Among all the different urinary symptom score systems currently available, the use of I-PSS is recommended because of its worldwide distribution and use.

2. In patients undergoing investigation for LUTS, the minimal requirement is to assess the upper urinary tract function with a creatinine measurement and/or an ultrasonographic examination. Urinalysis may be included in the primary evaluation. However, it should be noted that there is little evidence in the literature to support this conclusion.

3. DRE is a minimal requirement in patients undergoing investigation for LUTS.

4. There is a consensus that if imaging of the upper urinary tract is performed, ultrasonography is the method of choice.

5. Imaging of the upper urinary tract is recommended in patients with LUTS and one of the following:
   - History of, or a current, urinary tract infection
   - History of urolithiasis
   - History of urinary tract surgery
   - History of urothelial tumour (including IVU)
   - Haematuria (including IVU)
   - Urinary retention.

6. CT and MRI currently have no place in the routine imaging of the upper urinary tract in elderly men with LUTS.

7. Routine imaging of the urinary bladder cannot be recommended as a diagnostic test in the work-up of patients with LUTS. Ultrasound of the bladder, however, is a valuable diagnostic tool for the detection of bladder diverticula or bladder stones.

8. Routine imaging of the urethra is not recommended in the diagnostic work-up of patients with LUTS.
9. The method of choice for the determination of prostate volume is ultrasonography, preferably via the transrectal route. However, imaging of the prostate by transabdominal ultrasound and TRUS is optional.

10. Prostate size should be assessed when considering open prostatectomy and TUIP, and prior to finasteride therapy.

11. If the voided volume is less than 150 mL or Qmax is greater than 10 mL/s, pressure-flow studies should be considered before surgical intervention, particularly in elderly men.

12. Measurement of residual urine volume is a recommended test in the assessment of patients with LUTS suggestive of benign prostatic obstruction.

13. Endoscopy is recommended as a guideline at the time of surgical treatment to rule out other pathology and to assess the shape and size of the prostate, which may have an impact on the treatment modality chosen.

14. Pressure-flow studies should be considered for patients prior to surgical treatment in the following subgroups:
   - Younger men (e.g. <50 years of age)
   - Elderly patients (i.e. >80 years of age)
   - Post-void residual urine volume over 300 mL
   - Qmax more than 15 mL/s
   - Suspicion of neurogenic bladder dysfunction

**Treatment of BPH**

The aim of treatment is to improve patient’s quality of life and it depends on the severity of the symptoms of BPH. These guidelines recommend that a minimal assessment should be done in all patients seeking consultation for BPH before deciding on an appropriate treatment modality.
Recommended Guidelines for the Treatment of BPH

1. The WW policy should be recommended to patients with mild symptoms that have minimal or no impact on their quality of life.

2. 5 - Alpha Reductase Inhibitors are an acceptable treatment option for patients with bothersome LUTS and an enlarged prostate (> 40 ml) and can be used when there is no absolute indication for surgical treatment.

3. Alpha-blocker therapy is a treatment option for patients with bothersome LUTS who do not have an absolute indication for surgical treatment.

4. Surgical management (TURP, TUIP, open prostatectomy) is recommended as first-line treatment for patients with complications due to BPH with (an absolute indication for treatment of) LUTS.

5. Significant post-operative morbidity, disappointing long-term data and higher costs have resulted in a substantial decline in the clinical use of lasers. It is not recommended as a first-line surgical treatment for patients with LUTS, but may have a role in the treatment of high-risk patient subgroups.

6. HoLRP is a promising new technique with outcomes in the same range as those of TURP.

7. Transrectal HIFU therapy is currently not recommended as a therapeutic option for elderly men with LUTS and is considered an investigational therapy.

8. TUNA® is an encouraging technology as an alternative with acceptable results.

9. TUMT is an acceptable alternative to TURP and for those who prefer to avoid surgery or who no longer respond favourably to medication.
Follow-Up

All patients who receive treatment for BPH need follow-up. Follow-up schedules depend on the type of treatment administered.

Table 1. Recommended follow-up tests after BPH treatment

<table>
<thead>
<tr>
<th>Treatment modality</th>
<th>Examination</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I-PSS</td>
</tr>
<tr>
<td>WW</td>
<td>+</td>
</tr>
<tr>
<td>5α-Reductase inhibitors</td>
<td>+</td>
</tr>
<tr>
<td>α-Blockers</td>
<td>+</td>
</tr>
<tr>
<td>Surgical</td>
<td>+</td>
</tr>
<tr>
<td>Non-surgical</td>
<td>+</td>
</tr>
</tbody>
</table>

It is of importance to have follow-up visits in order to evaluate the effect and side effects of treatment given. The following scheme, or parts thereof, could be used as a suggestion for the timing of follow up.

Table 2. Recommended follow-up tests after BPH treatment

<table>
<thead>
<tr>
<th>Treatment modality</th>
<th>First year after treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6 weeks</td>
</tr>
<tr>
<td>WW</td>
<td>-</td>
</tr>
<tr>
<td>5α-Reductase inhibitors</td>
<td>-</td>
</tr>
<tr>
<td>α-Blockers</td>
<td>+</td>
</tr>
<tr>
<td>Surgical</td>
<td>+</td>
</tr>
<tr>
<td>Non-surgical</td>
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This short booklet text is based on the more comprehensive EAU guidelines, available to all members of the European Association of Urology (ISBN 90-70244-19-5) at their website - www.uroweb.org.

Benign Prostatic Hyperplasia