Treatement of lower urinary tract symptoms (LUTS) does not always reflect physician-reported diagnosis: results of a real-world survey of treatment patterns in Europe and the USA

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Introduction and objectives

• Nocturia is often combined with lower urinary tract symptoms (LUTS), where the underlying causes are frequently combined to conditions that affect the function of the urinary bladder (i.e. overactive bladder (OAB) or benign prostatic hyperplasia (BPH)).

• Nocturia is one of the most frequently reported single symptom, increases with aging, and may appear alone or in combination with other LUTS; it significantly affects quality of life and is the driving symptom for many men with nocturia.

• Nocturia due to nocturnal polyuria (nocturia/NP) is increasingly recognised as a separate entity within LUTS where the predominant cause is the nocturnal decrease of the concentration of the arginine-vasopressin hormone of the hypothys (antidiuretic hormone) that leads to impaired ability to concentrate urine. Furthermore, recent findings demonstrate that when nocturia/NP is present, there is usually no or only minimal clinical response to LUTS treatment.

• While nocturia is associated with LUTS, it is important to ascertain whether other causes of nocturia, in particular NP, are contributing to the nocturnal voiding symptoms and frequency that patients with LUTS experience in order to provide effective treatment based on the pathophysiology of LUTS.

• Valid self-reported assessment tools, such as bladder diaries for at least 3 days, are essential to diagnose accurately the causes of nocturia and to evaluate fully the clinical value of treatment.

• This study assessed the extent to which specific BPH and/or OAB therapies remain in use despite the awareness of other pathophysiological LUTS patterns.

Materials and methods

• Real-world patient data were drawn from the LUTS Disease Specific Programmes (DSP™), a cross-sectional survey of 635 physicians and their consulting patients last completed by Adaptis Real World in May 2013.

• Primary care physicians (PCPs) and specialists (urologists/gynaecologists) actively managing patients with LUTS were randomly selected across Europe (France, Germany, Spain, the UK) by Stratified Random Sampling (SRS) through the DSP channels.

• Each participating physician was required to complete a detailed patient record form for the next 14 consulting patients diagnosed with BPH, OAB and/or nocturia/NP (defined as having been diagnosed only with nocturia, NP or both, but not BPH or OAB).

• Data were collected on patient demographics, details of diagnosis (i.e. bladder symptoms, voiding frequency during the past 7 days, current and previous medications) and tests conducted to aid the diagnostic process including the use of a 3-day voiding diary, a guideline-recommended instrument in the complete evaluation of urinary symptoms in nocturia patients. Based on the judgement of the physician, multiple diagnoses could be captured by each patient record form.

• The methodology, including limitations has been outlined previously.

Results

Demographic and disease characteristics

The analysis set included 8738 male and female patients for whom 9486 diagnoses were documented by 264 PCPs and 271 specialists (Table 1).

Table 1: Patient demographics and symptoms according to record patient forms

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>All combined (N=9496)</th>
<th>Nocturia/NP* (n=569)</th>
<th>Any BPH (n=4492)</th>
<th>Any OAB (n=4425)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender (n, %)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>5838 (62)</td>
<td>338 (60)</td>
<td>2936 (65)</td>
<td>2267 (65)</td>
</tr>
<tr>
<td>Female</td>
<td>3658 (38)</td>
<td>231 (40)</td>
<td>1556 (35)</td>
<td>1108 (35)</td>
</tr>
<tr>
<td>Age (mean, years)</td>
<td>61.8</td>
<td>61.4</td>
<td>61.7</td>
<td>61.4</td>
</tr>
<tr>
<td>Mean age (previous 3 days), n (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daytime</td>
<td>3028 (89.5)</td>
<td>198 (35)</td>
<td>2429 (54)</td>
<td>1579 (53)</td>
</tr>
<tr>
<td>Nighttime</td>
<td>3281 (86.5)</td>
<td>223 (41)</td>
<td>2543 (56)</td>
<td>1796 (54)</td>
</tr>
<tr>
<td>Urgency</td>
<td>3650 (87)</td>
<td>222 (40)</td>
<td>3147 (69)</td>
<td>2364 (68)</td>
</tr>
</tbody>
</table>

Nocturia/NP* = nocturia/polyuria: DSP = not always reflect physician-reported diagnosis

Figure 1: Proportion of patients with confirmed diagnosis across the three study groups by diagnostic test used

Discussion

• The results of this study indicate that diagnosis and treatment of patients with LUTS is mainly based on a patient’s clinical history while bladder diaries are less frequently used. As observed in this study, less than 50% of PCPs/specialists use diaries in clinical practice even in cases with OAB or nocturia, although recommended in current LUTS guidelines.

• Despite increasing awareness of other LUTS diagnoses and regardless of the underlying pathophysiology, physicians still typically treat LUTS with therapies used to control bladder-related problems (i.e. antimuscarinic and/or blockers with or without 5α-reductase inhibitors) (16.5%), whereas 24.6% received other treatments among whom two thirds (16.4%) received nocturia/NP-specific treatment (i.e. desmopressin) (Figure 2).

• The proportion of patients who did not receive any drug was higher among those diagnosed with nocturia/NP (20.5%) than those diagnosed with OAB (13.0%) or BPH (8.0%) (Figure 2).

Conclusions

• A high proportion of patients with nocturia/NP are at the highest risk of not receiving any drug for their symptoms, or even incorrect treatment based on their pathophysiology of LUTS.

• Physicians should be aware that the origin of LUTS may be nocturia/NP (i.e. renal) alone or in combination with OAB (i.e. bladder) or BPH (i.e. prostate).

• Voiding diaries should be used to diagnose accurately the causes of nocturia, in particular when the underlying cause of NP might be present. Once the diagnosis of nocturia/NP is confirmed, physicians should be encouraged to use antidiuretic treatment.

References