The progression of overactive bladder symptoms: a prospective longitudinal study in men aged 45 to 103 years

Hypothesis / aims of study
Cross-sectional prevalence studies have demonstrated that overactive bladder (OAB) is common in both men and women and prevalence increases with increasing age (1). The aim of this study was to describe the progression of OAB symptoms in a large random sample of men initially assessed in 1992.

Study design, materials and methods
In 1992, 10,458 men, aged 45-99 years, were selected at random from the National Population Register according to year of birth to obtain several large cohorts at five-year intervals. The men received a self-administered postal questionnaire on OAB, urinary incontinence (UI), other lower urinary tract symptoms (LUTS) as well as questions on social, medical and demographic data. The response rate was 74% (n = 7,763). The men who responded in 1992 and who were still alive and available in the National Population Register were re-assessed eleven years later in 2003 regarding OAB, UI and other LUTS using the same questionnaire technique. On both occasions OAB and LUTS were assessed according to the current ICS definition (2). The presence or absence of OAB symptoms were classified as follows: No OAB symptoms = No OAB; OAB without UI = OAB - UI; and OAB with UI = OAB + UI.

Results
In 2003, 4,072 of the 7,763 men who responded to the questionnaire in 1992 were available in the National Population Register (3,000 men had died and 691 had emigrated). Three thousand two hundred and fifty seven men (80%) who were then aged 56-103 years responded to the questionnaire distributed in 2003. Complete data regarding OAB and UI was available for 2,317 men from both 1992 and 2003. The table shows the percentage numbers of men reporting OAB symptoms in 1992 and 2003.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No OAB (1992)</td>
<td>1166</td>
<td>680</td>
<td>109</td>
<td>1955 (84.4%)</td>
</tr>
<tr>
<td>OAB - UI (1992)</td>
<td>120</td>
<td>157</td>
<td>40</td>
<td>317 (13.7%)</td>
</tr>
<tr>
<td>OAB + UI (1992)</td>
<td>3</td>
<td>19</td>
<td>23</td>
<td>45 (1.9%)</td>
</tr>
<tr>
<td>Total 2003 N (%)</td>
<td>1289 (55.6%)</td>
<td>856 (36.9%)</td>
<td>172 (7.4%)</td>
<td>2317 (100%)</td>
</tr>
</tbody>
</table>

Interpretation of results
During the course of this 11-year observation period the overall prevalence of OAB in the same men had markedly progressed and 44.4% of the men reported OAB symptoms in 2003 compared to 15.6% in 1992. There was an increase in the proportion of men with OAB without UI (36.9%) and OAB with UI (7.4%) in 2003 compared to 1992 (OAB without UI 13.7% and OAB with UI 1.9%). Only a minority of men reported regression of symptoms.

Concluding message
There was a marked increase in the prevalence of OAB in the same men assessed longitudinally over this 11-year period. Over 40% of men with no OAB symptoms in 1992 (aged 45-99 years) had developed OAB symptoms with or without UI in 2003 (aged 56-103 years). These data reflect the dynamic progress of OAB symptoms in men in the later stages of life. Further research is needed to understand the impact of treatment on the progression of symptoms.

References

Funding: The study was supported by an academic grant from Pfizer to The Department of Obstetrics and Gynaecology, Sahlgrenska Academy at Göteborg University, Sweden.

Human Subjects: This study was approved by the The Ethics Committee of Göteborg University, Göteborg, Sweden and followed the Declaration of Helsinki. Informed consent was not obtained from the patients.