

## IS ENHANCING QUALITY OF LIFE (QOL) IN PATIENTS WITH LOWER URINARY TRACT SYMPTOMS (LUTS) AN APPROPRIATE HEALTH CARE GOAL?

### Aims of study

The patients' judgements of LUTS reflect bother and worry, feelings often confused with QOL in the literature (1). QOL is a broadly defined judgement of the individual's life, determined by a span of life conditions, included disease and health factors. The purpose of this study was to investigate to which extent the symptom severity and related factors contribute to the variance of QOL in LUTS patients.

### Study design, materials and methods

The sample consisted of 612 men with the tentative diagnoses of BPH and LUTS waiting for urologic evaluation. After being informed by letter about their attendance to the waiting list, 480 patients gave their consent to participate and filled in a questionnaire containing WHOQOL-bref, which results in a profile of 4 domains (range 4 – 20), each of which relates to a particular domain of QOL: Physical health, psychological, social relations and environmental domain. Two single items (range 0 – 4) measures overall QOL, and overall health perception. The questionnaire contained beyond this I-PSS (total range 0-35), The Sandvik Incontinence severity index (0=no UI, 1=slight, 2=moderate, 3= severe, 4= very severe) , the ICS-BPH sexual function item 24 a (range 0 – 3), and a BPH-specific Interference with Activities scale (total range 7 –35). Those scores as well as age were included as independent variables in a multiple regression model for each of the four WHOQOL-bref domains as the dependent factor, as well as for each of the two single WHOQOL-bref items. Statistical significance was set at 5 % for the regression coefficients.

### Results

In the table below, regression coefficients for the independent variables for each domain of the WHOQOL-bref are shown.

The regression analysis shows that the predictive value of symptom severity was statistically significant only in the physical domain. Urinary incontinence severity had predictive ability in three domains and the predictive value of sexual function was significant in all domains. The trend further was that most statistically significant regression coefficients were close to zero. In all the dependent variables, the condition specific independent factors had a low explained variance (5 – 18%) of the QOL domain levels.

Table: Unstandardised regression coefficients for linear association between QOL domains and different factors influencing QOL, adjusted for the other factors in the column.

Dependent variable	Symptom severity	Age	UI severity	Influence on daily living <sup>a</sup>	Sexual function <sup>b</sup>	R <sup>2</sup>
Physical	-0.06 <sup>c</sup>	-0.02	-0.14 <sup>c</sup>	-	-0.61 <sup>c</sup>	0.13
Psychological	0.09	-0.06	-0.11	-0.04	-0.18 <sup>c</sup>	0.06
Social	-0.01	-0.00	-0.35 <sup>c</sup>	0.02	-	0.02
Environmental	-0.08	-0.04	-0.11	0.01	-0.14 <sup>c</sup>	0.06
Overall QOL	-0.01	0.00	-0.16 <sup>c</sup>	0.02	-0.35 <sup>c</sup>	0.18
Overall health	0.00	0.05	-0.09	0.08	-0.15 <sup>c</sup>	0.05

<sup>a</sup> The item was omitted from the Physical domain model due to similar content in both predictor and dependent variable

<sup>b</sup> The item was omitted from the Social domain model due to similar content in both predictor and dependent variable

<sup>c</sup> p ≤ 0.05

### Interpretation of results

The results indicate that the LUTS and its associated factors have very low clinical significance as predictors of QOL. The WHOQOL-bref might be too general to capture associations to symptom-related factors. Several studies on LUTS have run a multiple

regression analysis with the more specific health-related QOL SF-36 questionnaire as dependent variable (2, 3) with a similar explained variance.

### **Concluding message**

To enhance the QOL for this group of men, may be a goal unachievable for health care. Because this condition might threaten health status when untreated and also gives bother and worry, health care's goals for this group of patients should probably be based on more specific concept and facets than QOL in general.

### **References**

1. Haltbakk J, Hanestad BR, Hunskaar S. Use and misuse of the quality of life concept in evaluations of surgical treatments of LUTS. *BJU Int* 2003; 91: 380-8.
2. Salinas-Sanchez AS, Hernandez-Millian I, Lorenzo-Romero JG, Segura-Martin M, Fernandez-Olano C, Virseda-Rodriguez JA. Quality of life in patients on the waiting list for benign prostatic hyperplasia surgery. *Qual Life Res* 2001; 10: 543-53.
3. Welch G, Weinger K, Barry MJ. Quality-of-life impact of lower urinary tract symptom severity: Results from the health professionals' follow-up study. *Urology* 2002; 59: 245-50.