

## THE CORRELATION BETWEEN THE UROGENITAL DISTRESS INVENTORY/INCONTINENCE IMPACT QUESTIONNAIRE AND OBJECTIVE MEASUREMENTS FROM THE BLADDER DIARY.

### Hypothesis / aims of study

The Urogenital Distress Inventory (UDI) and the Incontinence Impact Questionnaire (IIQ) together form a disease-specific quality of life instrument that can be used in women with urogenital symptoms. The UDI measures if a symptom is present and the amount of bother the woman experiences from that symptom. Symptoms are grouped in domains. The Dutch version of the UDI consists of 5 domains, amongst them the UDI incontinence domain. The IIQ measures different aspects of quality of life and the Dutch version consists of physical functioning, social functioning, emotional functioning, mobility and embarrassment domains. The purpose of this study was to test the correlation between the UDI/IIQ subjective measures and data obtained from a 48 hour bladder diary.

### Study design, materials and methods

In 2003 a total of 243 women visited our pelvic floor care unit for the evaluation of micturition problems. All women completed the UDI and IIQ questionnaire and a 48 hour bladder diary. On the diary they recorded the number of voids, volume of each micturition, number of incontinence episodes, numbers of pads used and the amount of urine loss (expressed as small = drops, medium = wet pad or underwear, or large = soaking). Spearman correlation coefficients were calculated using SPSS 10.0 software.

### Results

The table shows the Spearman correlation coefficients and significance level.

Table

|                   | Number of incontinence episodes per 24 hours | Number of pads used per 24 hours | Amount of urine lost |
|-------------------|--|----------------------------------|----------------------|
| UDI incontinence  | 0.439 *                                      | 0.370 *                          | 0.488 *              |
| IIQ physical      | 0.052  | 0.011                            | 0.068                |
| IIQ social        | 0.156 *                                      | 0.097                            | 0.074                |
| IIQ emotional     | 0.071  | 0.044                            | 0.015                |
| IIQ mobility      | 0.166 *                                      | 0.093                            | 0.159 *              |
| IIQ embarrassment | 0.292 *                                      | 0.291 *                          | 0.301 *              |

\* p < 0.05

There is a statistically significant, moderate correlation between the objective parameters of severity of urinary incontinence from the bladder diary items and the subjective bother recorded on the UDI incontinence scale. On all the five IIQ domains the correlation with objective data is very weak or absent. The best correlation, although only small, is between the bladder diary items and the IIQ embarrassment domain. In addition, there is also a poor correlation between the UDI incontinence domain and the IIQ domains ( 0.13 IIQ social, 0.17 IIQ emotional, 0.19 IIQ physical, 0.26 IIQ mobility and 0.30 IIQ embarrassment).

### Interpretation of results

The severity of urinary incontinence is often expressed in terms of number of incontinence episodes, numbers of pads used or in the amount of urine lost. These data are also often used to report on the success of interventions. However, our data show that although there is a moderate correlation between incontinence episodes, number of pads used, amount of loss and the reported bothersomeness of incontinence, there does not seem to be a significant correlation with quality of life. Furthermore, the amount of bother reported does not correlate well with the impact that is reported on the different aspects of quality of life. The only weak correlation was found between the UDI incontinence domain and the IIQ embarrassment domain.

**Concluding message**

Both the objective indicators of the severity of urine incontinence as well as the reported bothersomeness correlate poorly with the subjective disease-specific quality of life. Apparently, there are more aspects on incontinence that determine quality of life besides the number of incontinence episodes and amount of urine loss. These data stress the importance to report on both objective as well as subjective parameters when describing the outcome of urinary incontinence treatment. Furthermore, one has to keep in mind that the IIQ was developed to account for the subjective severity of incontinence and a good correlation with objective parameters is not a necessity for its value. Improvement in quality of life is important from the patients point of view, and apparently this does not correlate well with our objective measurements.