

## WHY WOMEN PREFER TO HAVE URODYNAMICS

### Hypothesis / aims of study

Although urodynamic assessment (UDA) is widely used, its place in the investigation and management of incontinence remains controversial, particularly, in conservative management. We have previously reported different outcomes for women with incontinence dependent on their decision to undergo UDA prior to treatment or not. This study aims to find out 1) the importance of urodynamics before instituting non-surgical conservative treatment of incontinence 2) if the "gain" obtained from the test effects how a patient responds subsequently and make them more compliant to treatment, 3) if their choice was effected by their symptom score and the effect incontinence have on their quality of life (QOL).

### Study design, materials and methods

All patients referred to our unit with LUTs were offered the opportunity to join this study. Patients were asked to complete a Kings QoL questionnaire and a 3-day Frequency Volume chart (FVC). The patients were then offered conservative treatment based on symptoms, investigation with UDA or randomised to treatment or investigation first. The objective outcome measure studied was reduction in Incontinence Episode Frequency (IEP). Subjective outcome was calculated using the King's QoL questionnaire. Both were reassessed after 6 months. ITT protocol was used. Logistic regression analysis was done to evaluate the effect of choice of treatment and effect of incontinence on their QOL.

### Results

Women electing to have UDA and women randomised to UDA had a significantly greater reduction in IEP (table 1)

Preference	N at recruitment	DNA	IEP before	IEP after	Significance (P value)
Pref for UDA	153	25 (16.4%)	5.37	4.09	0.015
Pref for treatment	57	19 (33.3%)	5.1	4.4	0.17
Rand to UDA	52	4 (6.8%)	5.2	3.89	0.048
Rand to Treatment	47	13 (29.7%)	5.5	4.3	0.33

Table 1

Preference for UDA was significantly associated with stress incontinence ( $p=0.027$ ), voiding difficulty ( $p=0.038$ ) and nocturia ( $p=0.00$ ). Increasing age was significantly associated preference for conservative management ( $p=0.017$ ). Among the domains of the King's QOL scores, interference with Personal relationships was significantly associated with Preference for urodynamics ( $p=0.034$ ) and disturbance with Sleep/Energy was associated significantly with being randomised ( $p=0.002$ ). The choice for conservative management was not associated with any domains of the King's QOL scores.

### Interpretation of results

The change in IEP and QoL scores from baseline to 6 months were calculated using the value from the responders comparing the patient preference groups (conservative vs test) and, as separate analyses, the 2 arms of the randomised groups. There was statistically significant difference in the IEP in those patients who preferred to have the test compared to those who had treatment, as well as those that were randomised to the test compared to those randomised to treatment. There was, however, no statistically significant difference in the QoL scores between the groups. The study clearly shows a 3:1 preference for urodynamics over conservative treatment. A third of women who chose conservative treatment don not attend (DNA) their subsequent appointment as opposed to one-sixth who chose urodynamics. The same pattern can be noticed in the randomised arm where a third of women randomised to conservative treatment DNA subsequent appointment.

The greater their symptoms score and interference with quality of life, more likely were they to choose urodynamics.

### Concluding message

This study shows significant changes in the IEP in the groups either showing preference for UDA or randomised to UDA. There were, however, no changes to the King's QoL scores between the groups.

This study clearly shows a desire of women to have a diagnosis before embarking on treatment as is seen by their choice for the test. Additionally, once a diagnosis has been made they are more receptive to treatment subsequently as is evident from their subsequent attendance rates. Even in the group randomised to conservative treatment, the DNA rate was significantly higher, reinforcing potential gains obtained from undertaking the test.

Given the fact those involved in the decision of their care, were also subsequently compliant with treatment, if they had the test, it might be prudent to administer decision support tools to those who wish to participate. Besides, differences in treatment preferences will inevitably exist and recognition of this is an important first step to consensus of appropriate treatment choice. It may be that there is "value added" in counselling of a women whilst performing the test that has never previously been investigated.

Though it is not mandatory to do UDA before conservative management, many women prefer to have urodynamic test prior to treatment and therefore standardised protocols of "one size fits all" may result in considerable loss in quality of care for a significant number of patients.

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**HUMAN SUBJECTS:** This study was approved by the South Birmingham Regional Ethics Committee, Birmingham, UK and followed the Declaration of Helsinki Informed consent was obtained from the patients.

