



# Does severity of LUTS affect the outcome of conservative therapy?

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## Background

Conservative treatments and drug therapy are both effective treatments for overactive bladder (OAB), stress urinary incontinence (SUI) and mixed incontinence. Most Continence Guidelines<sup>1,2</sup> recommend conservative treatment for all women as first line treatment. However, conservative treatment is resource intensive and some patients may not benefit, although there is a lack of evidence on whether treatment outcome is influenced by severity of the condition before treatment.

## Aim

To identify factors associated with the success or failure of conservative management for OAB, SUI and mixed incontinence.

## Methods

Retrospective review of outcomes from patients with OAB, SUI and mixed incontinence treated in a tertiary centre. Validated disease specific symptom and quality of life questionnaires (OAB-q SF, ICIQ-UI SF) and bladder diaries were used to record severity of symptoms. Patients were offered a standardised therapy: lifestyle advice, supervised pelvic floor muscle training (PFMT) and bladder training. Therapy success or failure was assessed by Patient Global Impression of Improvement questionnaire (PGI-I). Non-parametric statistical tests and ROC curves were used to analyse the data. Data are median (range).

## Results

One hundred and twenty-five cases were reviewed. Outcomes were divided into: success and failure groups, where success was a response of "very much better" or "much better"

In OAB patients there were significant differences between the groups in baseline OAB-q and ICIQ-UI questionnaires and some bladder diary data (Table 1).

**Table 1. Results in OAB group**

	Success group	Failed group	P value
No.	30	20	
Age	68 (37-90)	69.5 (34-86)	0.641
OAB symptom severity	30 (0-80)	80 (23-100)	0.0001
OAB HRQL	67 (20-101)	24 (6-58)	0.0001
ICIQ-UI	5.5 (0-20)	15 (0-21)	0.002
Urgency episodes	4 (0-12)	6 (0-11)	0.032
Incontinence episodes	0 (0-10)	1 (0-8)	0.180
Micturition frequency	7 (0-12)	8 (5-13)	0.102

ROC curve analysis showed these factors to have reasonable test performance statistics. However, binary logistic regression on patient reported outcome showed that only OAB HRQL score >51 was independently associated with outcome. The optimal cut off point for this score gave a sensitivity of 95% and specificity of 76%.

In patients with mixed urinary incontinence there were significant differences between ICIQ scores between the groups and urgency episodes in 24 hrs documented in bladder diaries (Table 2).

**Table 2. Results in mixed incontinence group**

	Success group	Failed group	P value
No	21	29	
Age	55 (52-62)	58 (52-63)	0.6
OAB symptom severity	40 (0-80)	57 (0-100)	0.18
OAB HRQL	55 (32-94)	61 (0-91)	0.3
ICIQ-UI	11 (1-18)	15 (5-21)	0.03
Urgency episodes	3 (0-10)	6 (0-16)	0.004
Incontinence episodes	1 (0-8)	1 (0-10)	0.4
Micturition frequency	7 (4-13)	9 (4-12)	0.7

ROC curve analysis showed these factors to have reasonable test performance statistics. However, binary logistic regression on patient reported outcome showed that only ICIQ-UI score < / = 12 was independently associated with outcome. The optimal cut off point for this score gave a sensitivity of 57% and specificity of 86%.

In patients with SUI there were significant differences between ICIQ scores and incontinence episodes in 24 hrs documented in bladder diaries (Table 3).

**Table 3. Results in SUI group**

	Success group	Failed group	P value
No	13	12	
Age	54 (42-72)	58 (43-80)	0.1
ICIQ-UI	11 (6-16)	13.5 (11-19)	0.003
Urgency episodes	1 (0-4)	2 (0-5)	0.1
Incontinence episodes	0 (0-1)	2 (0-4)	0.004
Micturition frequency	6 (0-8)	7 (6-8)	0.1

ROC curve analysis showed these factors to have reasonable test performance statistics. However, binary logistic regression on patient reported outcome showed that only ICIQ-UI score of < / = 13 was independently associated with outcome. The optimal cut off point for this score gave a sensitivity of 92% and specificity of 50%.

## Conclusions

These results demonstrate baseline symptom severity can predict patient reported treatment outcomes. From the OAB data, only OAB HRQL scores from the OAB-q were independent predictors of outcome. In the mixed and SUI groups, ICIQ-UI scores were independent predictors of outcome. These data indicate that clinicians could tailor treatment pathways based on patients' specific symptom severity. Such a streamlined approach may lead to a more cost-effective use of resources and provide greater patient satisfaction by more rapid relief of symptoms. However, immediate triage to direct initial interventions warrants investigation.

## References

- <https://www.nice.org.uk/guidance/cg171>
- [https://uroweb.org/wp-content/uploads/20-Urinary-Incontinence\\_LR.pdf](https://uroweb.org/wp-content/uploads/20-Urinary-Incontinence_LR.pdf)

## Disclosures

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