

## INTRODUCTION

- Bladder diary (BD) is a fundamental tool for LUTS evaluation.
- Two groups have produced studies validating existing bladder diaries [1,2].
- Nevertheless, patients often misinterpret Patient Perception of Intensity of Urgency Scale (PPIUS) and the reason of leaking urine.
- With the intention to better communicate with the patient, we have designed icons to evoke bladder sensations.
- The goal of our study is to determine the capacity of each of the new designed icons to evoke the sensation of urgency, urgency incontinence (UI), stress incontinence (SI) and incontinence by unknown reason (IUR).

## METHODS

- A professional designer depicted icons for urgency, UI, SI and IUR (Figure 1). We designed a new format for a validated BD (Figure 2) [1]. This new design avoided free text by the use of check boxes and incorporated the icons with a short evocative word beneath.
- 22 male and female patients with LUTS entered the study.
- A self-administered questionnaire was also given to check for icon adequacy.
- We analyzed how many patients checked on each of the icons and whether or not they understood them.

Urgency	
Urgency incontinence	
Stress incontinence	
Incontinence for unknown reason	

Figure 1

Figure 2

NAME: \_\_\_\_\_

DAY 1. DATE: \_\_\_/\_\_\_/\_\_\_

WAKE UP TIME: \_\_\_:\_\_\_ TIME TO SLEEP: \_\_\_:\_\_\_

MICTURITION										DRINK	
HOUR	MICTURITION DESIRE			INCONTINENCE				PAD	VOLUME (ml)	HOUR	VOLUME (ml)
	WEAK	MODERATE	STRONG	URGENCY	URGENCY	STRESS	UNKNOWN				
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___ ml	1	___ ml
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___ ml	2	___ ml
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___ ml	3	___ ml
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___ ml	4	___ ml
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___ ml	5	___ ml
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___ ml	6	___ ml
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___ ml	7	___ ml

## RESULTS

- 19/22 patients completed the BD.
- 16 patients filled up the questionnaire.
- 25% patients found it difficult to complete the BD.
- 7 patients found incontinence the most difficult part to fill in, 3 micturition desire and 1 micturition volume.

	Understood n (%)	Checked n (%)	Correct interpretation by those who checked it n (%)
	13 (81.2%)	13 (81.2%)	11 (84.6%)
	11 (68.8%)	6 (37.5%)	5 (83.3%)
	13 (81.2%)	5 (31.2%)	4 (80%)
	11 (68.8%)	7 (43.7%)	5 (71.4%)

## CONCLUSIONS

- The icons designed to evoke LUTS could be interpreted correctly by most patients, specially by those who felt that specific LUTS.
- A lot of patients feels that there is no clear reason for urine leaks. This type of incontinence is not given as an option in current validated bladder diaries.
- To our knowledge, these are the first icons that represent specific LUTS.

## REFERENCES

1. Jimenez-Cidre MA, Lopez-Fando L, Esteban-Fuertes M, Prieto-Chaparro L, Llorens-Martinez FJ, Salinas-Casado J, et al. The 3-day bladder diary is a feasible, reliable and valid tool to evaluate the lower urinary tract symptoms in women. *Neurourology and urodynamics* [Internet]. 2015 [cited 2016 Feb 11];34(2):128–132. Available from: <http://onlinelibrary.wiley.com/doi/10.1002/nuu.22530/full>
2. Bright E, Cotterill N, Drake M, Abrams P. Developing and Validating the International Consultation on Incontinence Questionnaire Bladder Diary. *European Urology* [Internet]. 2014 [cited 2015 Jan 7];66(2):294–300. Available from: <http://linkinghub.elsevier.com/retrieve/pii/S0302283814001869>