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Kraus S[1], Bradley C [2], Lin F [3], Subak L[3], Richter H[4], Grady D[3], Brubaker L[5], Brown J[3]
1. University of Texas Health Science Center, 2. University of Iowa, 3. University of California, San Francisco, 4. University of Alabama at Birmingham, 5. Loyola University

A SIMPLE TEST TO HELP PRIMARY CARE CLINICIANS APPROPRIATELY MANAGE URINARY INCONTINENCE IN WOMEN

Hypothesis / aims of study

Urinary incontinence (UI) is common in women and should be diagnosed and treated by primary care clinicians. Classifying UI type as urge or stress is required to choose proper drug therapy. Currently, classification of type of UI generally requires an extended evaluation (ExE) that is expensive, invasive and restricted to specialists. A simple test that accurately classifies type of UI would allow busy primary care clinicians to appropriately manage women with UI. We conducted a cross-sectional study among 301 women with UI at 5 US sites to determine the accuracy of a brief questionnaire and a 3-day diary.

Study design, materials and methods

We enrolled community-dwelling, ambulatory women aged 40 or older with at least 3 episodes of UI per week who sought treatment. Women who should be referred to a specialist were excluded (prior incontinence surgery, known neurologic diseases, current UTI or 4 or more UTIs in the prior year). The incontinence questionnaire (3 IQ) included 3 questions and the diary required women to record each UI episode by type over 3 days. All participants underwent an ExE (incontinence, medical, reproductive, and surgical histories, a 3-day diary, pelvic and neurologic examinations, stress cough test, and postvoid residual volume) performed by a urologist or urogynecologist blinded to the 3 IQ responses, but not diary, and who classified each woman as having urge, stress or other type of UI. Women were classified as having urge or stress UI on the 3 IQ if they reported that this type occurred most often and were classified as having urge or stress UI on the diary if they recorded at least 75% of this type of episode. We calculated the accuracy of the two tests using the diagnosis from the ExE as the gold standard.

Results

The mean age of participants was 56 ±12 years, they were racially diverse (69% White; 13% Black; 12% Latina; and 2% Asian) and most reported good or excellent health (83%). The mean duration of incontinence was 7 ±7 years and the range of UI severity was broad (mild 5%, moderate 59%, severe 36%). Accuracy of the 3 IQ and 3-day diary for the diagnosis of urge or stress incontinence is presented in the table.

Accuracy of 3IQ and Diary

	Sensitivity	Specificity	PPV	LR+
Urge				
3IQ	0.75 (0.68-0.81)	0.77 (0.69-0.84)	0.79 (0.72-0.85)	3.26 (2.38-4.48)
Diary	0.98 (0.93-0.99)	0.50 (0.42-0.59)	0.69 (0.63-0.75)	1.96 (1.66-2.33)
Stress				
3IQ	0.86 (0.79-0.90)	0.60 (0.51-0.68)	0.74 (0.68-0.80)	2.13 (1.71-2.66)
Diary	0.81 (0.74-0.86)	0.80 (0.72-0.87)	0.85 (0.78-0.90)	4.11 (2.87-5.88)
PPV = positive predictive value;	LR+ = likelihood ratio for a positive test;	3 IQ = 3 Incontinence Questions		

<u>Interpretation of results</u>
The 3 IQ is a simple, inexpensive, non-invasive and reasonably accurate test that can be used in primary care practice to determine if a woman has predominantly urge or stress UI. A 3-day diary, which is more cumbersome to use in practice, is more sensitive but much less specific than the questionnaire for the diagnosis of urge UI and somewhat more specific than the simple questionnaire for diagnosis of stress UI.

<u>Concluding message</u>
The 3IQ is a simple questionnaire and is a good test for type of UI, especially since the risk associated with missed diagnosis and treatment is low.