

Urinary Incontinence Assessment in Older Adults: Part II – Established Urinary Incontinence

By: Annemarie Dowling-Castronovo, PhD(c), RN, GNP, Evelyn L. Spiro School of Nursing Wagner College

WHY: Urinary incontinence (UI) is the involuntary loss of urine sufficient to be a bother. *Try This:* UI Part I highlights the need for evidenced-based assessment and focuses on the initial evaluation for possible causes of transient UI. *Try This:* UI Part II focuses on established (chronic) UI classified as urge, stress, overflow, functional, or a combination of these.

BEST TOOLS: A variety of UI screening tools are available to assist nurses in identifying the type of established UI. Several tools evaluate for specific types of UI (e.g.: urge UI). Two tools, the Urinary Distress Inventory-6 (UDI-6) and the Incontinence Impact Questionnaire-7 (IIQ-7) (Uebersax et al., 1995) are shortened versions of the original UDI and IIQ respectively (Shumaker et al., 1994) and have shown promise in the assessment of health-related quality of life, symptom distress, and in distinguishing among different types of established UI in the clinical setting.

TARGET POPULATION: UI screening is appropriate at any age, but especially for older adults due to increased prevalence. The at-risk patient population includes those with: immobility, impaired cognition, medications, obesity, smoking, fecal impaction, delirium, low fluid intake, environmental barriers, high-impact physical activities, diabetes, stroke, estrogen depletion, and pelvic muscle weakness (Fantl et al., 1996; Holroyd-Leduc & Straus, 2004). Evidenced-based assessment is essential to identify the type of UI.

VALIDITY AND RELIABILITY: The IIQ-7 and UDI-6 are both strongly correlated with original long versions, 0.97 and 0.93 respectfully; both showed significant convergent validity when compared to the pad test and number of incontinent episodes (Uebersax et al., 1995). The long versions demonstrated significant convergent ($r = .09-.52$) and criterion (e.g. discriminated between stress and urge UI; $r=.54$) validity (Shumaker et al., 1994). Question #2 of the UDI-6 demonstrated 83.3% sensitivity and 50.0% specificity for predicting urge UI; question #3 had 84.8% sensitivity and 63.4% specificity for predicting stress UI (Lemack & Zimmern, 1999). These findings suggest that the IIQ-7 and the UDI-6 may be useful as part of the general assessment of UI.

STRENGTHS AND LIMITATIONS: The IIQ-7 and UDI-6 have predominantly been tested in the community-dwelling female population. Both tools have additional testing in Arabic (Altaweel et al., 2009), Turkish (Cam et al., 2007), and Taiwanese women (Huang et al., 2010) populations; their brevity and ability to be self-administered are strengths for clinical use. The UDI-6 guides nurses in determining the type of persistent UI; however, there is no measure for differentiating mixed or functional UI. For the male population, the Male Urogenital Distress Inventory (MUDI) and the Male Urinary Symptom Impact Questionnaire (MUSIQ) (Robinson and Shea, 2002), based on the original IIQ and UDI, are reliable, Cronbach's .89 and .95 respectfully.

FOLLOW-UP: Nurses should utilize current evidence to guide the appropriate assessment, treatment, and management of UI. Once the type of persistent UI is identified, nurses are in the best position to devise an individualized plan of care, which includes healthy bladder behavior skills and collaboration with interdisciplinary team members to promote continence.

MORE ON THE TOPIC:

Best practice information on care of older adults: www.ConsultGerIRN.org.

Altaweel, W., Seyam, R., Mokhtar, A., Kumar, P., & Hanash, K., (2009). Arabic validation of the short form of Urogenital Distress Inventory (UDI-6) questionnaire. *Neurourology and Urodynamics*, 28(4), 330-334.

Cam, C., Sakalli, M., Ay, P., Cam, M., & Karateke, A. (2007). Validation of the short forms of the Incontinence Impact Questionnaire (IIQ-7) and the Urogenital Distress Inventory (UDI-6) in a Turkish population. *International Urogynecology Journal*, 26(1), 129-133.

Doughty, D.B. (2006). *Urinary & fecal incontinence: Current management concepts*. Mosby: St. Louis.

Dowling-Castronovo, A., & Bradway, C. (2012). Urinary Incontinence. In M. Boltz, E. Capezuti, T.T. Fulmer, & D. Zwicker (Eds.), A. O'Meara (Managing Ed.).

Evidence-based geriatric nursing protocols for best practice (4th ed., pp. 363-387). NY: Springer Publishing Company, LLC.

Fantl, A., Newman, D.K., Colling, J., et al. (1996). *Urinary incontinence in adults: Acute and chronic management*. Clinical Practice Guideline No. 2.

AHCPR Publication No. 96-0682. Rockville, MD: Agency for Health Care Policy and Research, U.S. Department of Health and Human Services.

Holroyd-Leduc, J.,M. & Straus, S.E. (2004). Management of urinary incontinence in women. *JAMA*, 291(8), 986-995.

Huang, W-C., Yang, S-H., Yang, S-Y, Yang, E., & Yang J-M. (2010). The correlations of incontinence-related quality of life measures with symptom severity and pathophysiology in women with primary stress urinary incontinence. *World Journal of Urology*, 28(5), 619-623. doi: 10.1007/s00345-009-0485-y.

Lemack, G.E. & Zimmern, P.E. (1999). Predictability of urodynamic findings based on the urogenital distress inventory-6 questionnaire.

Urology, 54(3), 461-466.

Robinson, J.P. & Shea, J.A. (2002). Development and testing of a measure of health-related quality of life for men with urinary incontinence.

JAGS, 50(5), 935-945.

Shumaker, S.A., Wyman, J.F., Uebersax, J.S., McClish, D., & Fantl, J.A. (1994). Health-related quality of life measures for women with urinary incontinence:

The Incontinence Impact Questionnaire and the Urogenital Distress Inventory. Continence Program in Women (CPW). *Quality of Life Research*, 3(5), 291-306.

Uebersax, J.S., Wyman, J.F., Shumaker, S.A., McClish, D.K., Fantl, J.A., & the Continence Program for Women Research Group. (1995). Short forms to assess life quality and symptom distress for urinary incontinence in women: the Incontinence Impact Questionnaire and the Urogenital Distress Inventory. *Neurology and Urodynamics*, 14(2), 131-139.

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UROGENITAL DISTRESS INVENTORY SHORT FORM (UDI-6)

Please answer each question by checking the best response. While answering these questions, please consider your symptoms over the last 3 months. We realize that you may not be having problems in some of these areas, but please fill out this form as completely as possible.

| Do you experience, and if so, how much are you bothered by... | Not at all | Somewhat | Moderately | Quite a Bit |
|---|------------|----------|------------|-------------|
| Frequent urination | | | | |
| Leakage related to feeling of urgency | | | | |
| Leakage related to physical activity, coughing, or sneezing | | | | |
| Small amounts of leakage (drops) | | | | |
| Difficulty emptying bladder | | | | |
| Pain or discomfort in lower abdominal or genital area | | | | |

INCONTINENCE IMPACT QUESTIONNAIRE-SHORT FORM (IIQ-7)

Some people find that accidental urine loss may affect their activities, relationships, and feelings. The questions below refer to areas in your life that may have been influenced or changed by your problem. For each question, circle the response that best describes how much your activities, relationships, and feelings are being affected by urine leakage.

| Has urine leakage affected your... | Not at all | Slightly | Moderately | Greatly |
|--|------------|----------|------------|---------|
| 1. Ability to do household chores (cooking, housecleaning, laundry)? | 0 | 1 | 2 | 3 |
| 2. Physical recreation such as walking, swimming, or other exercise? | 0 | 1 | 2 | 3 |
| 3. Entertainment activities (movies, concerts, etc.)? | 0 | 1 | 2 | 3 |
| 4. Ability to travel by car or bus more than 30 minutes from home? | 0 | 1 | 2 | 3 |
| 5. Participation in social activities outside your home? | 0 | 1 | 2 | 3 |
| 6. Emotional health (nervousness, depression, etc.)? | 0 | 1 | 2 | 3 |
| 7. Feeling frustrated? | 0 | 1 | 2 | 3 |

Items 1 and 2 = physical activity; Items 3 and 4 = travel
Item 5 = social/relationships; Items 6 and 7 = emotional health

Scoring: Item responses are assigned values of 0 for “not at all,” 1 for “slightly,” 2 for “moderately,” and 3 for “greatly.” The average score of items responded to is calculated. The average, which ranges from 0 to 3, is multiplied by 33 1/3 to put scores on a scale of 0 to 100.

Reference: Uebersax, J.S., Wyman, J.F., Shumaker, S.A., McClish, D.K., Fantl, J.A., & the Continence Program for Women Research Group. (1995). Short forms to assess life quality and symptom distress for urinary incontinence in women: the Incontinence Impact Questionnaire and the Urogenital Distress Inventory. *Neurology and Urodynamics*, 14(2), 131-139.

The Women’s Health Center of Excellence for Research, Leadership, Education (WHCoE) administers the distribution and use of these two questionnaires. On request, they will send copies of the self-administered instruments (both short and long forms), and scoring materials for each instrument. Requests may be made at the website: <http://www.wakehealth.edu/Research/WHCOE/IIQ-and-UDI-Instrument.htm>.