

## Urinary Incontinence Assessment in Older Adults Part I – Transient Urinary Incontinence

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**WHY:** Urinary incontinence (UI) is the involuntary loss of urine sufficient to be a bother. Depending on the setting, up to two-thirds of older adults experience UI. Yet, UI should not be considered a normal consequence of aging. Despite available treatment options, UI is not adequately assessed and managed in the older adult population. UI is associated with falls, obesity, skin impairments, urinary tract infections, limited functional status, depression, impaired cognition, poor self-rated health, social isolation, and increased caregiver burden. Proper assessment identifies the type of UI: transient (acute) or established (chronic). *Try This:*<sup>®</sup> UI Part I focuses on assessing for contributing causes of transient UI, which is significantly under addressed both in clinical practice and in the health care literature. *Try This:*<sup>®</sup> UI Part II focuses on established UI. Transient UI is generally defined as a sudden-onset UI that, if left untreated, may lead to established UI.

**BEST TOOLS:** Whether transient or established UI is suspected, a bladder diary is recommended for collecting information during both assessment and evaluation. There is variation among diaries as to data collected: UI episodes, associated activities during UI episodes, voided volumes, fluid intake, absorbent product usage, and bowel movement episodes. Recent research (Honjo et al., 2009) suggests including urinary perception and feeling of bladder fullness. The mnemonic DIAPPERS (or TOILETED, an alternative mnemonic) provides a framework for focusing the assessment of possible causes of transient UI.

**TARGET POPULATION:** UI screening is appropriate at any age, but especially for older adults due to increased prevalence. Specific to transient UI, the at-risk patient population includes those with immobility, impaired cognition, depression, certain medication usage (e.g. diuretics and anticholinergics), stool impaction, environmental barriers, diabetes, and estrogen depletion (Fantl et al., 1996; Resnick & Yalla, 1985).

**VALIDITY AND RELIABILITY:** The bladder diary has not been validated (Bright et al., 2011) but is still considered an important tool to collect historical data essential to the diagnosis and management of UI. A 7-day bladder diary is a reliable tool (Jeyaseelan et al., 2000; Locher et al., 2001), but is challenging to obtain in clinical settings due to its length; a three-day or two-day (Bright et al., 2011; Tincello et al., 2007) diary is more practical. The DIAPPERS or TOILETED mnemonics can be helpful since a valid and reliable tool for distinguishing among possible causes of transient UI is not available.

**STRENGTHS AND LIMITATIONS:** Bladder diaries, or records, continue to be the standard tool for assessing patterns of UI episodes. While the bladder diary requires validation testing in varied populations, its brevity and ability to be self-administered are strengths for use in clinical settings. Practitioners may find either mnemonic, DIAPPERS or TOILETED, a useful memory aide to recall the most common causes of transient UI.

**FOLLOW-UP:** Transient UI requires aggressive assessment and treatment of reversible causes. If left untreated, transient UI may transition to established UI. It is essential for nurses to regularly assess for transient UI and treat reversible causes across all health care settings.

### MORE ON THE TOPIC:

Best practice information on care of older adults: [www.ConsultGerIRN.org](http://www.ConsultGerIRN.org).

Agency for Health Care Research and Quality: National Guideline Clearinghouse. Multiple guidelines related to urinary incontinence available. Retrieved August 7, 2012 from <http://www.guideline.gov/search/search.aspx?term=urinary+incontinence>.

Bright, E., Drake, M., & Abrams, P. (2011). Urinary diaries: Evidence for the development and validation of diary content, format, and duration. *Neurourology and Urodynamics*, 30(3), 348-352.

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. Fulmer, & D. Zwicker, (Eds.), A. O'Meara (Managing Ed.). *Geriatric nursing protocols for best practice* (4<sup>th</sup> ed., chapter 18, pp. 393-387). New York: Springer Publishing Company, LLC.

Dowling-Castronovo, A. & Specht, J.K. (2009). How to try this: Assessment of transient urinary incontinence in older adults. *AJN*, 109(2), 62-71.

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. Includes:

Management of Urinary Incontinence in Primary Care with sample bladder record available at: <http://www.ncbi.nlm.nih.gov/books/NBK52177/#A10592>

Please note: This is an archived guideline for historical purposes.

Honjo, H., Kawachi, A., Ukimura, O., Nakao, M., Kitakoji, H., & Miki, T. (2009). Analysis of bladder diary with urinary perception to assess overactive bladder symptoms in community-dwelling women. *Neurourology and Urodynamics*, 28(8), 982-985.

Jeyaseelan, S.M., Roe, B.H., & Oldham, J.A. (2000). The use of frequency/volume charts to assess urinary incontinence. *Physical Therapy Reviews*, 5(3), 141-146.

Locher, J.L., Goode, P.S., Rothe, D.L., Worrell, R.L., & Burgio, K.L. (2001). Reliability assessment of the bladder diary for urinary incontinence in older women. *Journal of Gerontology Series A - Biological Sciences & Medical Sciences*, 56(1), M32-35.

National Kidney and Urologic Diseases Information Clearinghouse (NKUDIC) website: <http://kidney.niddk.nih.gov/index.aspx>.

Resnick, N.M., & Yalla, S.V. (1985). Management of urinary incontinence in the elderly. *NEJM*, 313, 800-804.

Tincello, D.G., Williams, K.S., Joshi, M., Assassa, R.P., & Abrams, K.R. (2007). Urinary diaries: A comparison of data collected for three days versus seven days. *Obstetrics & Gynecology*, 109(2), 277-280.

# Urinary Incontinence Assessment in Older Adults

BLADDER DIARY/RECORD - Track a 24-hour time period for several days

	Time Interval	Feeling a Full Bladder	Volume Urinated in Toilet	Incontinent Episode <sup>1</sup>	Reason for Episode <sup>2</sup>	Type and Amount of Liquid Intake <sup>3</sup>	Bowel Movement	Product Use <sup>4</sup>
A.M. Hours	12:00–01:00 AM							
	01:00–02:00 AM							
	02:00–03:00 AM							
	03:00–04:00 AM							
	04:00–05:00 AM							
	05:00–06:00 AM							
	06:00–07:00 AM							
	07:00–08:00 AM							
	07:00–08:00 AM							
	09:00–10:00 AM							
	10:00–11:00 AM							
	11:00–12:00 PM							
P.M. Hours	12:00–01:00 PM							
	01:00–02:00 PM							
	02:00–03:00 PM							
	03:00–04:00 PM							
	04:00–05:00 PM							
	05:00–06:00 PM							
	06:00–07:00 PM							
	07:00–08:00 PM							
	08:00–09:00 PM							
	09:00–10:00 PM							
	10:00–11:00 PM							
	11:00–12:00 AM							

<sup>1</sup> **Incontinent episodes:** (++) = SMALL: did not have to change pad/ clothing; (+++) = LARGE: needed to change pad/clothing

<sup>2</sup> **Examples of reasons for incontinent episodes:** leaked while sneezing; leaked while running to the bathroom

<sup>3</sup> **Examples of type and amount of liquid intake:** 12 oz can of cola, 2 cups regular coffee

<sup>4</sup> **Examples of product use:** pad, undergarment; track times you changed

Adapted from: 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.

Adapted from: U.S. Department of Health and Human Services, National Kidney and Urologic Diseases Information Clearinghouse (NKUDIC) Daily Bladder Diary site (Updated 2010): <http://kidney.niddk.nih.gov/kudiseases/pubs/diary/index.aspx>.

## POSSIBLE CAUSES OF TRANSIENT URINARY INCONTINENCE

### DIAPPERS

### TOILETED

<p><b>Delirium</b></p> <p><b>Infection</b> (e. g., urinary tract infection)</p> <p><b>Atrophic urethritis or vaginitis</b></p> <p><b>Pharmacology</b> (e.g., diuretics, anticholinergics, calcium channel blockers, narcotics, sedatives, alcohol)</p> <p><b>Psychological disorders</b> (especially depression)</p> <p><b>Endocrine disorders</b> (e.g., heart failure, uncontrolled diabetes)</p> <p><b>Restricted mobility</b> (e.g., hip fracture population, environmental barriers, restraints)</p> <p><b>Stool Impaction</b></p>	<p><b>Thin, dry vaginal and urethral epithelium</b> (Atrophic urethritis or vaginitis)</p> <p><b>Obstruction</b> (Stool Impaction/Constipation)</p> <p><b>Infection</b></p> <p><b>Limited mobility</b> (Restricted mobility)</p> <p><b>Emotional</b> (Psychological, Depression)</p> <p><b>Therapeutic medications</b> (Pharmacological)</p> <p><b>Endocrine disorders</b></p> <p><b>Delirium</b></p> <p>(Information in parenthesis refers to the DIAPPERS mnemonic)</p>
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Source for DIAPPERS mnemonic: Resnick, N.M. & Yalla, S.V. (1985). Management of Urinary Incontinence in the Elderly. *NEJM*, 313(800-804). Copyright 1985 Massachusetts Medical Society. All rights reserved. Adapted with permission.

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