

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

By: Annemarie Dowling-Castronovo, PhD(c), RN, GNP, Rutgers,
The State University of New Jersey, College of Nursing

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 persistent (chronic). Try This: 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: UI Part II focuses on persistent UI. Transient UI is generally defined as a sudden-onset UI that, if left untreated, may lead to persistent UI.

BEST TOOLS: Whether transient or persistent UI is suspected, the bladder diary is recommended for collecting information concerning UI episodes during both assessment and evaluation. 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: While the 7-day bladder diary is the most studied and reliable tool (Jeyaseelan, et al, 2000; Locher, et al, 2001), it is challenging to obtain in clinical settings; a three-day diary may be more practical. The bladder diary has not been validated in the frail or cognitively impaired older adult population or when completed by caregivers, such as home health aides. 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 additional 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 persistent 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.

Agency for Health Care Research and Quality: National Guideline Clearinghouse. (2006). *Guideline synthesis: Evaluation and management of urinary incontinence*. Retrieved February 6, 2007 from <http://www.guideline.gov/Compare/comparison.aspx?file=INCONTINENCE1.inc>.

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

Dowling-Castronovo, A. & Bradway, C. (2008). Urinary incontinence. In E. Capezuti, D. Zwicker, M. Mezey, & T. Fulmer (Eds.). *Geriatric nursing protocols for best practice* (3rd ed., chapter 13). New York: Springer Publishing Company, Inc.

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.

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.

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

Urinary Incontinence Assessment in Older Adults

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

	Time Interval	Urinated in Toilet	Incontinent Episode ¹	Reason for Episode ²	Liquid Intake ³	Bowel Movement	Product Use ⁴
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						

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

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

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

⁴ **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.

POSSIBLE CAUSES OF TRANSIENT URINARY INCONTINENCE

DIAPPERS

TOILETED

<p>Delirium Infection (e. g., urinary tract infection) Atrophic urethritis or vaginitis Pharmacology (e.g., diuretics, anticholinergics, calcium channel blockers, narcotics, sedatives, alcohol) Psychological disorders (especially depression) Endocrine disorders (e.g., heart failure, uncontrolled diabetes) Restricted mobility (e.g., hip fracture population, environmental barriers, restraints) Stool Impaction</p>	<p>Thin, dry vaginal and urethral epithelium (Atrophic urethritis or vaginitis) Obstruction (Stool Impaction/Constipation) Infection Limited mobility (Restricted mobility) Emotional (Psychological, Depression) Therapeutic medications (Pharmacological) Endocrine disorders Delirium</p>
---	--

(Information in parenthesis refers to the DIAPPERS mnemonic)

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.