

Urinary Incontinence *in older adults*

Urinary incontinence (UI) affects up to one-third of the noninstitutionalized population over age 60, with 25 percent to 30 percent of these individuals having frequent urinary incontinence episodes.¹ UI may vary from non-significant to severe, causing extreme activity limitation and social isolation. Because urinary incontinence impacts function, it is a primary predictor of decline in elderly people.² Beyond the patient, urinary incontinence may also cause significant psychosocial distress to family, friends, and caregivers. National data show the annual direct cost of UI exceeds \$11 billion dollars for community dwelling persons alone.¹

Despite the importance of urinary incontinence, it is neither consistently inquired about by primary care providers nor reported by patients. Reasons may include embarrassment, the belief that urinary incontinence is an inevitable consequence of aging, or lack of knowledge regarding evaluation and management.³ Although UI is frequently missed during routine examination, older geriatric patients and men are even less likely to be screened for urinary incontinence than are younger geriatric patients and women.³ The recent literature describes methods to treat and improve the detection of urinary incontinence.

There is consensus among experts that physical examination^{4,5} and targeted lab evaluations⁶⁻⁸ may be used to identify the cause of urinary incontinence.

Studies conducted in the nursing home setting show that toileting assistance programs can reduce the frequency of incontinence by 20-60 percent.^{9,10} There is reason to believe that the same assistance would benefit patients in the home, post-acute, and acute care settings.

For ambulatory patients who are cognitively intact, stress, urge, and mixed incontinence may be eliminated or significantly reduced through bladder training^{11,12} and pelvic floor muscle exercise¹³⁻¹⁹ alone, or supplemented by either biofeedback or electrical stimulation.

Community dwelling patients with urge urinary incontinence and detrusor instability may be successfully treated with oxybutynin²⁰⁻²³ or tolterodine, although both may cause anticholinergic side-effects.²⁴⁻²⁷

Proper treatment of urinary incontinence is usually successful in reducing or eliminating symptoms, and will help maintain the older patient's capacity for independent living.

This information is an interim result of a funded three-year collaboration between Pfizer and RAND to measure and improve the quality of care provided for older Americans.

References

1. U.S. Dept. of Health and Human Services, Public Health Service, Agency for Health Care Policy and Research. *Urinary Incontinence in Adults: Acute and Chronic Management. Clinical Practice Guideline. Number 2, 1996 Update.*
2. Tinetti ME, Inouye SK, Gill TM, Doucette JT. Shared risk factors for falls, incontinence, and functional dependence: Unifying the approach to geriatric syndromes. *JAMA.* 1995;273:1348-1357.
3. Cohen SJ, Robinson D, Dugan E, Howard G, Suggs PK, Pearce KF, Carroll DD, McGann P, and Preisser J. Communication between older adults and their physicians about urinary incontinence. *J Gerontol: Med Sci.* 1999; 54A: M34-M37
4. Ouslander J, Leach G, Abelson S, Staskin D, Blaustein J, and Raz S. Simple versus multichannel cystometry in the evaluation of bladder function in an incontinent geriatric population. *J Urol.* 1988;140:1482-1486.
5. Hilton P, Stanton SL. Algorithmic method for assessing urinary incontinence in elderly women. *BMJ.* 1981;282:940-942.
6. Resnick NM, Yalla SV, Laurino E. The pathophysiology of urinary incontinence among institutionalized elderly persons. *N Engl J Med.* 1989;320:1-7.
7. Resnick NM, Yalla SV. Detrusor hyperactivity with impaired contractile function: An unrecognized but common cause of incontinence in elderly patients. *JAMA.* 1987;257:3076-3081.
8. Ouslander JG, Hepps K, Raz S, Su H. Genitourinary dysfunction in a geriatric outpatient population. *J Am Geriatr Soc.* 1986;34:507-514.
9. Schnelle JF. Treatment of urinary incontinence in nursing home patients by prompted voiding. *JAGS.* 1990;38:356-360.
10. Colling J, Ouslander J, Hadley BJ, Eisch J, Campbell E. The effects of patterned urge response toileting (PURT) on urinary incontinence among nursing home residents. *J Am Geriatr Soc.* 1992;39:135-141.
11. Fantl JA, Wyman JF, McClish DK, Harkins SW, Elswick RK, Taylor JR, Hadley EC. Efficacy of bladder training in older women with urinary incontinence. *JAMA.* 1991;265:609-613.
12. Wyman JF, Fantl JA, McClish DK, Bump RC, The Continence Program for Women Research Group. Comparative efficacy of behavioral interventions in the management of female urinary incontinence. *Am J Obstet and Gynecol.* 1998;179: 999-1007.
13. Wells TJ, Brink CA, Diokno AC, Wolfe R, Gillis GL. Pelvic muscle exercise for stress urinary incontinence in elderly women. *JAGS.* 1991;39:785-791.
14. Burgio KL, Robinson JC, Engel BT. The role of biofeedback in Kegel exercise training for stress urinary incontinence. *Am J Obstet and Gynecol.* 1986;154:58-64.
15. Burns PA, Pranikoff K, Nochajski TH, Hadley EC, Levy KJ, Ory MG. A comparison of effectiveness of biofeedback and pelvic muscle exercise treatment of stress incontinence in older community-dwelling women. *J Gerontol: Med Sci.* 1993;48:M167-M174.
16. Berghmans LCM, Frederiks CMA, de Bie RA, Weil EJJ, Smeets LWH, van Waalwijk van Doorn ESC, Janknegt RA. Efficacy of biofeedback, when included with pelvic floor muscle exercise treatment, for genuine stress incontinence. *Neurology and Urodynamics.* 1996;15:37-52.
17. Miller JM, Ashton-Miller JA, DeLancey JOL. A pelvic muscle precontraction can reduce cough-related urine loss in selected women with mild SUI. *J Am Geriatr Soc.* 1998;46:870-874.
18. Norton PA, Baker JE. Postural changes can reduce leakage in women with stress urinary incontinence. *Obstet Gynecol.* 1994;84:770-774.
19. Chang PL, Tsai LH, Huang ST, Wang TM, Hsieh ML, Tsui KH. The early effect of pelvic floor muscle exercise after transurethral prostatectomy. *J Urol.* 1998;160: 402-405.
20. Zeegers AGM, Kiesswetter H, Kramer AEJL, Jonas U. Conservative therapy of frequency, urgency and urge incontinence: A double-blind clinical trial of flavoxate hydrochloride, oxybutinin chloride, emperonium bromide and placebo. *World J Urol.* 1987;5:57-61.
21. Holmes DM, Montz FJ, Stanton SL. Oxybutinin versus propantheline in the management of detrusor instability: A patient-regulated variable dose trial. *Br J Obstet Gynaecol.* 1989;96:607-612.
22. Thuroff JW, Bunke B, Ebner A, Faber P, de Geeter P, Hannappel J, Heidler H, Madersbacher H, Melchior H, Schafer W, Schwenzer T, Stockle M. Randomized, double-blind, multicenter trial on treatment of frequency, urgency, and incontinence related to detrusor hyperactivity: Oxybutynin versus propantheline versus placebo. *J Urol.* 1991;145:813-817.
23. Kelleher CJ, Cardozo LD, Khullar V, Salvatore S. A medium term analysis of the subjective efficacy of treatment for women with detrusor instability and low bladder compliance. *Br J Obstet Gynaecol.* 1997;104:988-993.
24. Nilvebrant L, Hallen B, Larsson G. Tolterodine - a new bladder selective muscarinic receptor antagonist: Preclinical pharmacological and clinical data. *Life Sciences.* 1997;60:1129-1136.
25. Jonas U, Hofner K, Madersbacher H, Holmdahl TH, the participants of the international study group. Efficacy and safety of two doses of tolterodine versus placebo in patients with detrusor overactivity and symptoms of frequency, urge incontinence, and urgency: Urodynamic evaluation. *World J Urol.* 1997;15: 144-151.
26. Appell RA. Clinical efficacy and safety of tolterodine in the treatment of overactive bladder: A pooled analysis. *Urology.* 1997;50 (Suppl 6A):90-96.
27. Rentzhog L, Stanton SL, Cardozo L, Nelson E, Fall M, Abrams P. Efficacy and safety of tolterodine in patients with detrusor instability: A dose-ranging study. *Br J Urol.* 1998;81:42-48.