

Urinary Incontinence in Long-Term Care Facilities: Current Clinical Practice

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incontinence

Urinary incontinence is defined as the involuntary leakage of urine.¹ It is a common condition that adversely affects the health and quality of life of those who are afflicted. Estimates of its prevalence vary, ranging from 17% to 55% in older women and from 11% to 34% in older men.² The wide range of these estimates is primarily due to the different study definitions and measurement techniques used in the studies.² Although its prevalence increases with age, incontinence is not considered a normal part of aging. The treatment of incontinence has a large economic impact; a recent study estimated that the direct cost of urinary incontinence was \$16.3 billion per year (1995 dollars), of which 75% was attributed to the treatment of women.³

Urinary incontinence has a major impact in long-term-care facilities. It is the second leading reason for placement of older adults into institutionalized care,⁴ and it is the primary reason why many elderly are not accepted into the less expensive and less environmentally restrictive environment of assisted living facilities.⁵ In long-term-care facilities, it has been estimated that about 50% of the residents are urinary incontinent.⁶ Interestingly, residents who are continent at admission tend to become incontinent over time. In one study of 430 newly admitted nursing home residents, 22% of women who were continent at admission, were incontinent after one year.⁷ The conversion rate in men was even higher (56%). The reasons for this increase involve cognitive and mobility impairment and adjustment to the nursing home environment. Once incontinence develops, it tends to persist.

In addition to staff, many nursing home residents believe urinary incontinence is inevitable. Residents will utilize self-management strategies for urine leakage in order to protect social and psychological integrity, privacy, and dignity.⁸ Not only does urinary incontinence have a substantial social effect on residents, it also has associated morbidities, including urinary tract infections, pressure ulcers, and falls with subsequent injury.^{5,9} In addition, caring for residents with urinary incontinence adds considerably to

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the burden of caretakers and can result in morale problems and increased staff turnover.¹⁰ Because of these negative influences, the prevalence of urinary incontinence is considered an indicator of the quality of care within long-term-care facilities,¹¹ and several clinical practice guidelines have been developed by regulatory agencies and caregiver associations in an effort to improve the recognition, treatment, and outcomes of urinary incontinence. The remainder of this article will present an overview of these government regulations, clinical practice guidelines, and evidence supporting their use in the management and treatment of urinary incontinence.

Government Regulations

The Omnibus Budget Reconciliation Act regulations developed in 1987 state that in long-term-care facilities a resident who is incontinent must receive appropriate treatment and services to prevent urinary tract infections and to restore as much bladder function as possible. Catheterization should not be used unless a resident's clinical condition demonstrates that it is necessary. These two regulations and other parts of the act have been interpreted as requiring a long-term-care facility to have an incontinence program that (1) promotes keeping residents dry by encouraging independence with toileting; (2) minimizing the number of incontinence episodes if the resident is unable to independently use the toilet; and (3) limiting the negative consequences of incontinence if the resident is incapable of being continent.⁵

This program includes using the Resident Assessment Instrument (RAI).⁵ The RAI, which organizes resident care history and needs into a comprehensive and standardized format, consists of three components: the minimum data set (MDS), the resident assessment protocols (RAPs), and

the resident care plan (see Table 1). The portion of the MDS addressing urinary incontinence is completed at admission and periodically thereafter, and is designed to evaluate urinary continence in the preceding 14 days. The RAP is triggered by the findings of the MDS and is used to assist the staff in determining the underlying cause of incontinence and in putting a treatment plan in place to address urinary incontinence in the resident. When assessing a long-term-care facility for state certification and eligibility for federal and state funding, surveyors will rely on completed MDSs, appropriate RAPs, and treatment plans to evaluate the effectiveness of the facility's urinary incontinence program.

Table 1. Resident Assessment Instrument (RAI) Process

Assessment	Nursing
	Medical
Data Collection	Observation of the resident
	Medical record review
	Relevant documentation
	Resident and caregiver interviews
Data entry	Minimum Data Set
Triggers	Section H, urinary continence
	Data items relating to diagnosis, function, cognition, medications
Resident Assessment Protocol	Identify rehabilitation potential
	Identify resident problem for care plan
	Outline assessment procedure
Care plan	Not proceed
	Documentation problem addressed and resolved
Proceed	Identifies specific problem and individualized plan of care to address

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Clinical Practice Guidelines

Several organizations have issued clinical practice guidelines for urinary incontinence. The Agency for Healthcare Research and Quality (AHRQ, formally the Agency for Health Care Policy and Research [AHCPR]) issued its first guideline on urinary incontinence in 1992 and updated it in 1996,¹² and the American Medical Directors Association (AMDA) published its guidelines in 1996.¹³ The AMDA guidelines were based on those of the AHCPR and were adapted to focus on care in the long-term-care institutional environment. The purpose of the guidelines is to improve reporting, diagnosis, and treatment of urinary incontinence and to reduce the variation in clinical practice. These guidelines were based on outcome evidence of clinical studies and on the consensus recommendations of experts in the field. These guidelines provide recom-

mendations in three areas: recognition and evaluation of urinary incontinence, diagnosis of the causes of urinary incontinence, and selection of appropriate therapy. Furthermore, these documents recognize that assessment of urinary incontinence, identification of the type, and the appropriate intervention can improve this condition in many cases.

Recognition and Evaluation

Upon entry into a long-term-care facility, each resident must be evaluated for a history of urinary incontinence, and reassessment must be done every three months and recorded on the MDS form. If a resident is or becomes incontinent, as indicated by wet clothing, wet bed, or direct observation, further assessment is indicated.

Assessment begins by classifying the type of incontinence. Urge incontinence is the loss of urine associated with a strong urge to void and usually occurs when the detrussor muscle of the bladder involuntarily contracts. It is also known as overactive bladder and is associated with increased urinary urgency, frequency, and nocturia. A triggering event, for example the sound of running water, can cause it.⁴ Urge incontinence is the most common type of urinary incontinence found in the long-term-care setting.⁵ Stress incontinence describes the loss of small amounts of urine occurring during coughing, sneezing, or laughing, or upon effort or exertion, or any action that increases intra-abdominal pressure, for example, changes in position. Those residents with signs and symptoms of both stress and urge incontinence are said to have mixed incontinence. Urge, stress, and mixed incontinence account for more than 80% of incontinence in the long-term-care environment.⁴ Overflow incontinence occurs when the urethra is narrowed or blocked and is most often seen in men who have an enlarged prostate. Functional incontinence describes a resident's physical inability or unwillingness to use toileting facilities. Although it is commonly the result of physical disability or decreased cognitive abilities, this diagnosis should be one of exclusion, because these residents may have other types and causes of incontinence that can be effectively treated. In long-term-care facilities, more than 25% of urinary incontinence is associated with some decrease in function or mobility⁴ and can be addressed effectively by providing easily accessible toilets, frequent reminders to toilet, and toileting assistance.¹⁴

Diagnosis of the Cause of Urinary Incontinence

The AHRQ and AMDA guidelines recommend conducting a history, which focuses on factors related to incontinence and a physical examination to determine if incontinence is due to any reversible or other contributing fac-

tors. Some potentially reversible causes of urinary incontinence include patient conditions (eg, fecal impaction, depression, delirium, and urinary tract infection), disease (eg, diabetes, Parkinson's disease, or neurological disease affecting motor skills), and the use of certain medications (eg, diuretics, drugs affecting the sympathetic nervous system, or psychoactive medications). Environmental conditions (eg, lack of access to a toilet, impaired mobility, restrictive clothing) can also be a factor. Any reversible cause of urinary incontinence should be corrected before therapy directed at urinary incontinence is initiated. If correcting the reversible cause does not improve urinary incontinence, additional testing (eg, urodynamic and endoscopic testing) might be warranted. The AHCPR guidelines also recommend that a determination of post-void residual volume (PVR) be made in all residents. A bladder record, or diary, noting the time and volume of incontinence episodes as well as the fluid intake and type of liquid consumed is an important tool that not only can aid in diagnosis, but can later be used to assess efficacy of any treatment.

Management and Treatment of Urinary Incontinence

The treatment for urinary incontinence depends on the type of incontinence, its causes, and the capabilities and motivation of the resident. The treatment options include: behavioral techniques (including scheduled toileting or habit training, prompted voiding, bladder retraining), medical therapy, and surgery. Bladder retraining is appropriate for cognitively intact, motivated residents who have the potential to regain normal pattern of bladder function and involves teaching the patient to control urinary urgency. Prompted toileting involves staff intervention to initiate toileting at regular intervals regardless of urinary urge and is recommended for residents who cannot participate in independent toileting. Regular toileting intervals of 2 to 3 hours have been shown to be effective in long-term care facilities.¹⁵⁻¹⁸ Habit training describes using a fixed schedule of toileting based on the voiding pattern of the individual. Its success depends on monitoring the voiding pattern of the resident and adjusting the voiding schedule to match it. One randomized study reported a significant decrease in urinary incontinence in a group of nursing home residents with urge or mixed incontinence.¹⁹ Both habit training and prompted toileting require staff compliance with the intervention.

Pharmacotherapy can aid in the management of urinary incontinence and overactive bladder symptoms of urgency and frequency in patients who are unable to perform or do not respond well to behavioral interventions or as combination treatment in residents who are on a toileting pro-

gram.²⁰ For residents with both urge incontinence and overactive bladder with no complicating factors, anticholinergic drugs are appropriate, and both oxybutynin and tolterodine are approved for this indication. Both are available as one-per-day formulations, but compliance can be difficult due to the tolerability of side effects such as dry mouth, constipation, and dry eyes. In a frail long-term care-patient, this can be of greater concern because of the increased risk of co-morbidities. In 2003, the FDA approved a transdermal formulation of oxybutynin. This transdermal formulation offers easy application and twice per week dosing with significantly less side effects.²¹ This may be a more attractive drug delivery for this population. Transvaginal estrogen preparations such as creams, tablets and vaginal rings may be effective in women with mixed incontinence. Local application of estrogen may also prevent recurrent UTIs especially in nursing home women with bacteriuria and recurrent infections.²² With these drug treatments, it is important to initiate therapy at the smallest recommended dose and titrate slowly based on patient response and tolerability (see Table 2).

Table 2. Directed and Appropriate Management

Urge	Behavior/Medications
Stress	Behavior/Medications, Devices, Injections, Surgery
Overflow	Surgery, Catheter
Functional	Behavior, Medications, Catheter

The Role of the Medical Director

The role of the medical director in the implementation of a urinary incontinence program is an important one. Many physicians are not familiar with the guidelines and processes that have been outlined by OBRA. Therefore, it is the medical director's responsibility to ensure that the policies of the long-term-care facility are developed and implemented. These policies will aid the physician in the care of the elderly residing in the facility. Implementing these guidelines will also improve the quality of life and health of the residents and give the staff guidelines on how to handle one of the most common conditions found in the long-term-care facility.⁵

Barriers to Implementation of Incontinence Control Programs

Despite the evidence that the interventions described in the guidelines can successfully control the occurrence of incontinence in long-term-care facilities, implementation of these recommendations has been suboptimal. For example, in a recent study of Veterans Affairs nursing homes, over two-thirds of the staff were aware of the guidelines,

but fewer than one-third had read the document.²³ Adoption of the guidelines was reported by only 29% of the staff in these facilities. A similar study of nursing homes in New York found that only 31% of the guidelines standards were being met.²⁴

As noted above, research clearly shows that implementation of toileting programs can improve the ability of the residents to remain continent in long-term-care facilities. However, education alone is insufficient to change practice.²⁵ Nurses have stated that barriers to implementation of such programs include lack of time and resources, lack of authority to change practice, and not very much support from administration, physicians, and other staff.^{26,27} Another barrier is economic. It has been estimated that the additional cost of an effective incontinence management program is \$9.09 per day per resident and that about 50% of this additional cost is due to labor.²⁸ A recent study has shown that although continence can be improved by an exercise and incontinence program, the costs incurred treating acute conditions associated with incontinence and immobility are not affected.²⁹ Thus, the primary argument for instituting an incontinence program must be improving quality of life for residents and staff, as well as the considerable health benefits that occur when a patient is continent. It takes support at all levels of the organization to successfully change the treatment of incontinence but clearly the benefits are worth it.

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CE Questions

Urinary Incontinence in Long-Term Care Facilities: _____ Current Clinical Practice

ce test

- Urinary incontinence is the _____ leading reason for placement of older adults into institutionalized care.
 - First
 - Second
 - Third
 - Fourth
- In long-term-care facilities, how many residents are estimated to be incontinent?
 - 50%
 - 40%
 - 20%
 - 80%
- Which of the following morbidities is not associated with urinary incontinence?
 - Falls
 - Pressure ulcers
 - Urinary tract infections
 - Liver disease
- Which of the following guidelines designate that catheterization should not be used unless a resident's clinical condition demonstrates that it is necessary?
 - Omnibus Budget Reconciliation Act
 - AMDA Guidelines
 - AHRQ Guidelines
 - All of the above
- Which one of the following components is not included in the Resident Assessment Instrument (RAI)?
 - Minimum data set
 - Resident assessment protocols
 - Resident care plan
 - Urinary diary
- The purpose of these guidelines is to improve reporting, diagnosis, and treatment of urinary incontinence and to reduce the variation in clinical practice. What are the guidelines called?
 - AHCPR Guidelines
 - AMDA Guidelines
 - AHRQ Guidelines
 - Omnibus Budget Reconciliation Act
- What is the most common type of urinary incontinence found in the long-term-care setting?
 - Stress
 - Overflow
 - Urge
 - Functional
- Which treatment option is not used in the management of functional incontinence?
 - Medications
 - Surgery
 - Behavior
 - Catheter
- In 2003, the FDA approved a new drug for urge incontinence. The difference between this new drug and drugs that were already on the market is:
 - A transdermal formulation
 - Less side effects
 - Twice weekly dosing
 - All of the above
- What is not a barrier to instituting the implementation of toileting programs?
 - Economic factors
 - Lack of time and resources
 - Lack of authority to change practice
 - Health benefits

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