

A Strategy for Urinary Incontinence Management in the Nursing Home -- A Mandated Outcome Measure

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INTRODUCTION

Urinary incontinence (UI) is prevalent in more than 50% of nursing home residents. It significantly affects the quality of a resident's life and is one of the most common complaints by family members. UI is often undertreated due to misinformation about the effectiveness and appropriateness of treatment options.

The Health Care Financing Administration (HCFA) has required the use of the minimum data set (MDS) in all nursing homes to use in the assessment and care screening of all nursing home residents. The resident assessment protocols (RAP) are a subset of the MDS designed to ensure good clinical practice within a regulatory framework. Urinary incontinence is one of the RAPs in the MDS.

Minimum Data Set (MDS) A core set of screening, clinical and functional status elements, including common definitions and coding categories, that forms the foundation of the comprehensive assessment for all residents of long term care facilities certified to participate in Medicare or Medicaid. The items in the MDS standardize communication about resident problems and conditions within facilities, between facilities, and between facilities and outside agencies.

Resident Assessment Protocols (RAPs) A component of the utilization guidelines, the RAPs are structured, problem-oriented frameworks for organizing MDS information, and examining additional clinically relevant information about an individual. RAP help identify social, medical and psychological problems and form the basis for individual care planning.

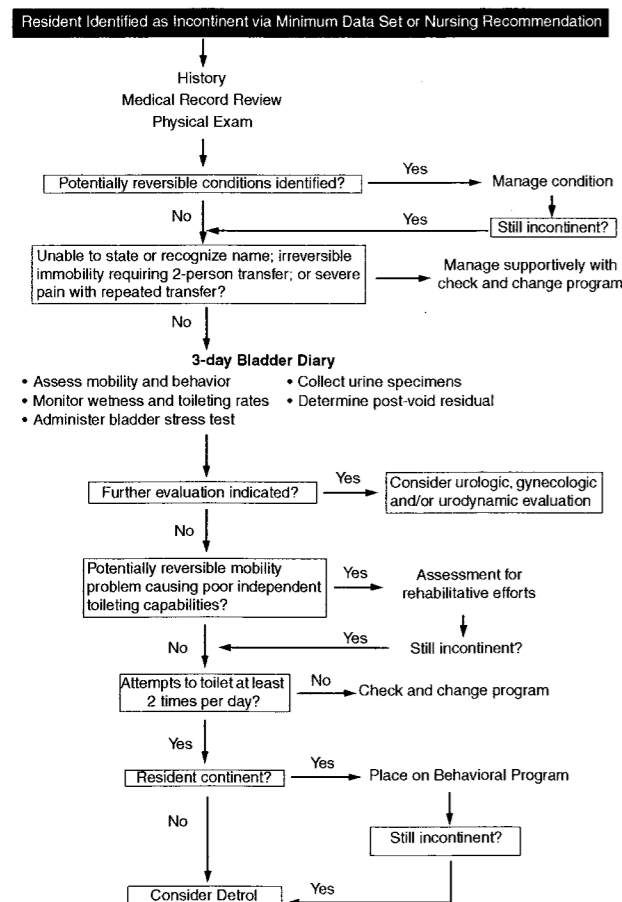
With the introduction of a new treatment modality, a program was designed to train a multidisciplinary staff on the UI RAP through an implementation of a UI specific assessment algorithm used to determine what is the best treatment modality for a specific nursing home resident. The principals of continuous quality improvement and tracking of resident outcomes was emphasized in the program.

METHODS

Population: 5 Nursing Homes covering 645 beds

Design: Data were collected prospectively over a four month time period using standardized data collection forms for all residents identified with incontinence. Data were collected during routine clinical care. Total quality management principles were used throughout the program with the intent to improve continence.

Medical Assessment Algorithm:



Behavioral Programs:

- Prompted Voiding:** Regular prompts by nursing home staff to encourage residents to void; i.e., prompts given every two hours during the day, 7 am to 7 pm. Residents are toileted only if they ask for assistance. Prompting and positive reinforcement of appropriate toileting is used to prevent wetting episodes. The goal is to reduce the frequency of wetness in selected residents from 7 am to 7 pm.
- Timed Voiding:** Efforts are made to toilet the resident on a regular schedule, such as every two hours, or on a schedule that matches the resident's voiding pattern. Timed voiding generally is used in residents who are unable to learn new skills. The strategy is to avoid incontinence by having the resident empty the bladder regularly, before it reaches a volume that triggers urgency and incontinence.
- Check and Change:** Utilized for residents who are not appropriate for or do not respond to other behavioral programs. The resident utilizes pads or diapers, and is checked periodically by the nursing home support staff.

Pharmacologic Therapy:

- Tolterodine 1mg to 2mg bid

Outcome Measure:

60 day bladder diary, collecting data every two hours on whether the resident was wet, or dry by the nurse assistant (checks) from 7am to 7pm.

$$\text{Dryness rate} = \frac{\text{number of checks when resident was dry}}{\text{total number of checks}}$$

$$\text{Percent change in dryness rate (PCDR)} = \frac{\text{Last 7 days of monitoring} - \text{First 3 days of monitoring}}{\text{First 3 days of monitoring}}$$

Continuous Quality Improvement:

- UI can be improved by improving the process of care associated with UI
- Outcome is whether patient is wet or dry at a scheduled check
- Outcome was measured daily and tracked using control charts

RESULTS

Table 1: Familiarity with Urinary Incontinence Medical Assessments among Practitioners at 5 Nursing Homes

Question	Overall Mean
MDS experience*	2.5
RAP experience	2.2
UI Assessments**	3.7

*1= Not at all to 5 = Extensive
**1= Never to 5= Routinely

Table 2: Percent Change in Dryness Rate Over a 60 Day Period in 5 Nursing Homes

	Baseline mean (sd)	% change mean (sd)	p-value
Behavioral Toileting / Medically Stable (N=50)	50% (27.5)	15.6 (39.1)	0.006
Tolterodine / Medically Stable (N=31)	54.9 (28.0)	29.3 (83.7)	0.012

Figure 1: Results of UHM TOM Program in 5 Nursing Homes

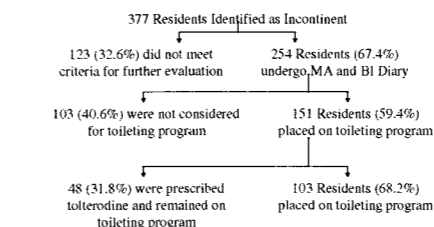


Figure 2: Example of a Control Chart Provided to Nursing Home Staff on a Weekly Basis

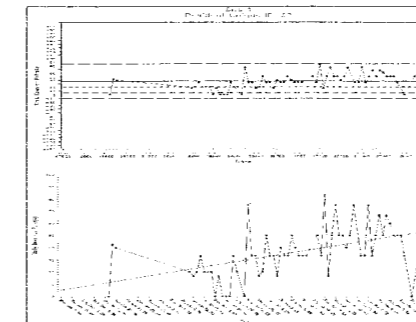
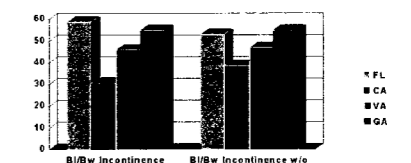


Table 3: Facility Quality Indicator Profile for 1 State

Domain/Quality Indicator	# in Num	# in Denom	Facility Percent	State Comparison Group Percent	Percentile Rank
Elimination/Incontinence					
Prevalence of bladder or bowel incontinence	22	36	61.1	58.8	
High risk	17	18	94.4	93.9	40
Low risk	5	18	27.8	45.6	10
Prevalence of occasional or frequent bladder or bowel incontinence without a toileting plan	4	6	66.7	53.1	59

Figure 3: Facility Quality Indicator Profile By State



CONCLUSIONS

With a concerted effort, multidisciplinary training, and continuous feedback, it is possible to improve UI Outcomes of nursing home residents from 15% to 30% on average.

To sustain improvements routine multidisciplinary objective feedback is required. Challenges facing the nursing home in sustaining these changes are:

- high turnover in nursing staff
- low wages
- high nurse to resident ratio
- time spent in assisting resident to toilet
- required assistant from nutrition, physical, and operation services in addition to nursing to make UI management a success, and
- time required to collect and maintain outcome measures on a routine basis