Best Practice Guideline

PROMOTING CONTINENCE USING PROMPTED VOIDING

Guideline Supplement

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Supplement Integration

This supplement to the nursing best practice guideline *Promoting Continence Using Prompted Voiding* is the result of a scheduled revision of the guideline. Additional material has been provided in an attempt to provide the reader with current evidence to support practice. Similar to the original guideline publication, this document needs to be reviewed and applied, based on the specific needs of the organization or practice setting/environment, as well as the needs and wishes of the client. This supplement should be used in conjunction with the guideline as a tool to assist in decision making for individualized client care, as well as ensuring that appropriate structures and supports are in place to provide the best possible care.

Background

In 1999, prompted voiding was chosen as a strategy to manage urinary incontinence because it had the potential to be used by care providers in a broad range of settings from the community to long-term care. When the original guideline was developed, there was sufficient evidence to support the recommendations but much of it was based on expert opinion. Now twelve years later, the body of evidence supporting this practice has grown and it continues to be the most effective strategy for use in clients with cognitive impairments. The guideline has been used in several large quality improvement initiatives that demonstrated a reduction of incontinence using prompted voiding (see Appendix G and H). A review of the literature published since 2005 has not meant dramatic changes to the recommendations within this guideline, but rather refinements and stronger evidence supporting this approach.

RNAO Registered Nurses' Association of Ontario
L'Association des infirmières et infirmiers autorisés de l'Ontario

Revision Process

The Registered Nurses' Association of Ontario (RNAO) has made a commitment to ensure that this practice guideline is based on the best available evidence. In order to meet this commitment, a regular monitoring and revision process has been established for each guideline.

A panel of nurses was assembled for this review, comprised of members from the original development panel as well as other recommended individuals with particular expertise in this practice area. The revision panel members were given a mandate to review the guideline focusing on the recommendations and the original scope of the guideline.

A structured evidence review based on the scope of the original guideline was conducted to capture the relevant literature and other guidelines published since the last update of this document (2005). The results of the evidence review were circulated to the review panel. In March 2011, the review panel was convened to reach consensus on the need to revise the existing recommendations in light of the new literature.

Review of Existing Guidelines

One individual searched an established list of websites for guidelines and other relevant content. The website list was compiled based on existing knowledge of evidence-based practice websites and recommendations from the literature.

While the search yielded many results, no guidelines met the inclusion criteria. Therefore, no guidelines were included as part of this evidence review.

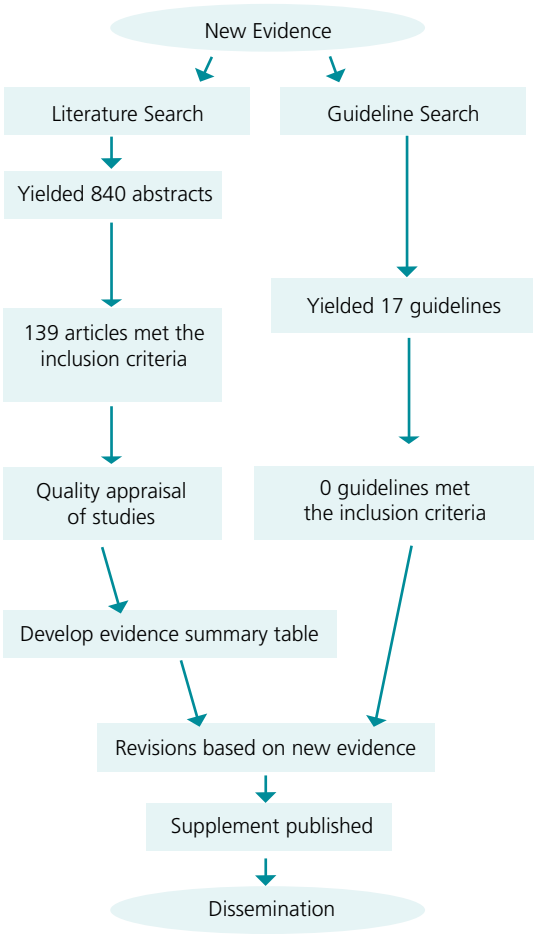
Literature Review

Concurrent to the guideline review, a search for recent literature relevant to the scope of the guideline was completed. The search of electronic databases (CINAHL, Medline, and EMBASE) was conducted by a health sciences librarian. A Research Assistant (Master's prepared nurse) completed the inclusion/exclusion review, quality appraisal and data extraction of the included articles, and prepared a summary of the literature findings. The comprehensive data tables and reference lists were provided to all review panel members.

Review Findings

A review of the most recent literature since the publication of the last revision of the guideline does not support changes to the original recommendations, but rather suggests stronger evidence for our approach to promoting continence using prompted voiding. The revision panel members have also updated and added appendices to support guideline implementation.

Review Process Flow Chart



Summary of Evidence

The following content reflects the changes made to the revised publication (2005) based on the consensus of the review panel. The literature review does not support dramatic changes to the recommendations, but rather suggests some refinements and stronger evidence for the approach.

✓ unchanged
changed
+ additional information
NEW new recommendation

Practice Recommendations

Recommendation 1 Obtain a history of the client's incontinence. Level of Evidence: IV	✓
The following paragraph has been added to the first paragraph of the discussion of evidence on pg 17 of the guideline: **Discussion of Evidence** In addition, two qualitative studies (Jansen et al., 2006 and Gnanadesigan et al., 2004) sought to evaluate the quality of care and assessment tools for the management of urinary incontinence. The use of reliable and valid assessment tools help to ensure that adequate information is gathered from the client that can facilitate the success of prompted voiding. Examples of valid and reliable assessment tools may be found in Skelly (2007).	+
Recommendation 2 Gather information on: • The amount, type and time of daily fluid intake, paying particular attention to the intake amount of caffeine and alcohol. • The frequency, nature and consistency of bowel movements. • Any relevant medical or surgical history which may be related to the incontinence problem, such as but not limited to diabetes, stroke, Parkinson's disease, heart failure, recurrent urinary tract infections or previous bladder surgery. Level of Evidence: IV	✓
Additional Literature: Dumoulin, C., Korner-Bitensky, N., & Tannenbaum, C. (2005). Gnanadesigan, N., et al. (2004). Jumadilova, Z., Zyczynski, T., Paul, B., & Narayanan, S. (2005).	+

Recommendation 3 Review the client's medications to identify those which may have an impact on the incontinence. Level of Evidence: III	✓
The following class of medication has been added to the list of medications on page 19 of the guideline: • cholinesterase inhibitors	+
Additional Literature: Finklestein, M. M. (2002). Gill, S.S., et al. (2005). Skelly, J. (2007). Starr, J. M. (2007).	
Recommendation 4 Identify the client's functional and cognitive ability. Level of Evidence: III	✓
The paragraphs in the discussion of evidence on pg 20 have been edited to reflect additional literature support: **Discussion of Evidence** There is strong evidence that persons most likely to develop urinary incontinence have mobility and/or cognitive impairments (Jumadilova et al., 2005; Lyons & Pringle Specht,1999; Ouslander et al., 1995; Schnelle, 1990; Sorbye et al., 2007). Cognitive impairment should not be considered a barrier to using prompted voiding. In a prospective controlled exploratory study, Engberg et al. (2002) found that older adults that were housebound and cognitively impaired responded positively to prompted voiding. The client's ability to be toileted is highly dependent on: level of self-care; ability to understand; ability to process information; and ability to respond accordingly (Lyons & Pringle Specht 1999; Dumoulin et al., 2005). The clinician can use a variety of tools to assist with assessing functional and cognitive ability. The RNAO guideline on *Screening for Delirium, Dementia and Depression in Older Adults* (2010) and the functional ability can be found in Appendix M of the guideline *Caregiving Strategies for Older Adults with Delirium, Dementia and Depression* (2010). The RNAO guideline on *Prevention of Falls and Fall Injuries in the Older Adult* (2011) can assist the clinician to identify risk factors for falls, decrease the incidence of falls, and decrease the incidence of injurious falls. These guidelines are available for download from the RNAO website at www.rnao.org/bestpractices. The Montreal Cognitive Assessment (MoCA) is available for download at http://www.mocatest.org/. Functional assessment tools that measure ability to perform activities of daily living (ADL) (Katz Index) and instrumental activities of daily living (IADL) (Barthel Index), mobility and balance (Timed Up and Go-TUG, Berg Balance score) and safety (Falls Risk Assessment Tool-FRAT) are available in the literature.	+

## Recommendation 5 Identify attitudinal and environmental barriers to successful toileting. Barriers include: • Proximity and availability of the nearest bathroom; • Accessibility of commode; • Satisfactory lighting; • Use of restraints; • Staff expectation that incontinence is an inevitable consequence of aging; and • Staff belief that few interventions exist to promote continence. Level of Evidence: III	✓
The following paragraph from the discussion of evidence on pg 20 has been revised to reflect additional literature support: ## Discussion of Evidence Wyman (2003), in a review of the literature on urinary incontinence, found that negative staff attitudes toward urinary continence were a barrier to the treatment of urinary incontinence. Attitudes of staff have also been identified as a factor in promoting continence (Dingwall & Mclafferty, 2006; Northwood, 2004). Another qualitative study (Dingwall & Mclafferty, 2006) revealed these additional barriers in promoting continence with older adults: low expectations for cure by nurses; ability of clients to stand; difficulty with speech or indicating need to use the toilet; patient's lack of continence education; inconsistency of approaches to promoting continence; and lack of knowledge. *The following paragraph as been added to the discussion of evidence on pg 21:* One model proposed in the literature was the development of ward-based continence resource nurses (WBCRN) (Ostasztiewicz et al., 2004). As a component of evaluation, 15 WBCRN were surveyed about their perceptions of barriers to implement optimal continence care. The barriers reported included: lack of dedicated time; insufficient resources; environmental factors, such as the need to share toilet facilities; lack of educational opportunities; inconsistent completion of relevant documentation; and inconsistency in patient care because of staff turnover.	+

## Recommendation 6 Check urine to determine if infection is present. Level of Evidence: III	**LOE changed (IV→III)**
The following paragraphs from the discussion of evidence on pg 21 have been revised to reflect additional literature support: ## Discussion of Evidence A baseline assessment for urinary incontinence routinely includes testing for a urinary tract infection as there is an association between the presence of infection and increase likelihood of incontinence (Sorbye, 2009). However, recent research on optimizing antimicrobial use for suspected urinary tract infections in residents of long-term care homes recommends a more targeted approach to screening (Loeb et al., 2005). As part of the assessment of clients for prompting voiding, a urine culture would be indicated if the client had one or more of the following symptoms in the presence of fever (defined as>37.9°C or 1.5°C increase above baseline on at least two occasions over last 12 hours): dysuria; urgency; flank pain; shaking chills; urinary incontinence; frequency; gross hematuria; suprapubic pain (Loeb et al, 2005). This testing should be done according to the organizational policy and procedure. If a urinary tract infection is present, the nurse should refer to the appropriate clinician for treatment.	+
## Recommendation 7 Determine how the client perceives their urinary incontinence and if they will benefit from prompted voiding. Before initiating prompted voiding, identify the client's pattern of incontinence using a 3-day voiding record. Level of Evidence: III	✓
The following paragraph has been added to the discussion of evidence on pg 21: ## Discussion of Evidence A recent exploratory study suggests that nurses continue to contain urinary incontinence rather than promoting continence in older adults (Dingwall & McLafferty, 2006). Nursing staff need to be aware of the negative impact of untreated incontinence on older persons. Views of the older person should be sought regarding their attitudes towards urinary incontinence.	+

## Recommendation 8 Ensure that constipation and fecal impaction are addressed. Level of Evidence: IV	✓
The discussion of evidence on pg 22 has been revised to reflect the following additional literature supports: ## Discussion of Evidence As indicated previously, studies reveal the importance of ensuring that fecal impaction is removed during the assessment phase (McCormick et al., 1992; Peet et al., 1996). Preventing and reducing constipation is a key intervention in the prevention and management of urinary incontinence (Burgio, 2004; Ostaskiewicz, 2006; Skelly, 2007). For this reason, this guideline is recommended to be used in conjunction with the RNAO nursing best practice guideline *Prevention of Constipation in the Older Adult Population* (2011). Regulating bowel function to avoid constipation and straining during a bowel movement is one of the key components to lifestyle modification that can be incorporated into the overall urinary incontinence treatment program (Burgio, 2004). For individuals experiencing constipation or fecal impaction, a comprehensive monitoring tool and the Bristol Stool Form Chart are recommended. Completion of a seven-day Bowel Elimination Record will give a clear picture of the bowel movements over a one-week period, while the Bristol Stool Form Chart will aid the monitoring of quality of bowel movements (Cassel, 2007).	+
## Recommendation 9 Ensure an adequate level of fluid intake (1500 - 2000 ml per day), and minimize the use of caffeinated and alcoholic beverages where possible. Level of Evidence: III	✓
The following paragraph has been added to the discussion of evidence on pg 23: ## Discussion of Evidence Palmer & Newman (2004) report on a qualitative study using focus group methodology. The results of this study identified that older adults lack knowledge of the impact of fluid intake on urinary incontinence, as well as, the amount and type of healthy fluids recommended to optimize continence care.	+
## Recommendation 10 Initiate an individualized prompted voiding schedule based on the client's toileting needs, and as determined by a 3-day voiding record. Level of Evidence: Ia	✓
Additional Literature: Ostaszkiewicz, J., Chestney, T., & Roe, B. (2004). Roe, B., Ostaszkiewicz, J., Milne, J., & Wallace, S. (2006).	+
## Recommendation 11 Initiate a 3-day voiding record, a minimum of 3 weeks and a maximum of 8 weeks, after the prompted voiding schedule. Level of Evidence: IV	✓

Education Recommendations

Recommendation 12

Implement an educational program on promoting continence using prompted voiding. The program should be structured, organized, and directed at all levels of healthcare providers, clients, family and caregivers. The educational program should identify a nurse with an interest in and/or advanced preparation in continence care (e.g., nurse continence advisor, nurse clinician, or clinical nurse specialist) to be responsible for providing the educational program. The program should be updated on a regular basis to incorporate **current evidence**.

The program should include information on:

- Myths related to incontinence and aging;
- Definition of continence and incontinence;
- Continence assessment;
- Prompted voiding;
- Individualized toileting;
- The impact of cognitive impairment on ability to be continent and strategies to manage aggressive behaviours;
- Relation of bowel hygiene care to healthy bladder functioning;
- Use of a voiding record with individualized toileting;
- **Education about conservative management strategies; and**
- **Rationale for conservative management strategies**

Level of Evidence: IV

+

The following paragraph on pg 24 of the guideline has been edited to reflect current literature:

Discussion of Evidence

Research studies have consistently shown that many health care professionals lack sufficient knowledge about continence care and that treatment options are multi-factorial (Lawhorne et al., 2008; Resnick et al., 2006). Taunton and colleagues (2005) describe staff attitudes in providing incontinence care, concluding the focus is primarily on containment rather than treatment. Various research surveys have been conducted on the educational preparation of nurses and their knowledge concerning continence care, concluding there is a lack of sufficient knowledge about incontinence (Cheater, 1992; Palmer, 1995). Palmer (1995) asserts the importance of developing a staff continence educational program to enhance nursing practice and quality of continence care. Such programs should include: standards of continence care; assessment skills; and sensitivity to incontinence training (Peet et al. 1996). Other research identifies the importance of education on: myths of incontinence and aging; definitions of continence and incontinence; and strategies to manage aggressive behaviours in prompted voiding (Northwood, 2004; Sui, Schindel-Martin, Skelly & Northwood, 2001). Staff support is also a crucial factor for the success of prompted voiding (Lyons & Pringle Specht, 1999).

+

Additional Literature:

Roe, B., Milne, J., Ostaszkiewicz, J., & Wallace, S. (2006).

Recommendation 13 Nurses should be knowledgeable about community resources for professional development, referral and ongoing assistance. Level of Evidence: IV	✓

Organization and Policy Recommendations

Recommendation 14 Successful implementation of prompted voiding requires: • Management support; • Opportunities for education and training; • Active involvement of key clinical staff; • Gradual implementation of the prompted voiding schedule; • Collection of baseline information about clients, resources and existing knowledge; • Interpretation of this data and identification of problems; • Development of implementation strategy; and • Monitoring of the program. Level of Evidence: IIb	**LOE changed (IV→IIb)**
The following paragraphs have been added to the discussion of evidence on pg 25 of the guideline: **Discussion of Evidence** In order for staff to find ways to improve continence care in their current environment, the management team must make continence promotion a priority and hold staff accountable (Resnick et al., 2006). In long-term care homes where person-centred care is valued rather than task-based care, continence promotion is given a higher priority, underscoring the importance of management support (Wright et al., 2006). Additionally, the active involvement of key clinical staff is essential, as lack of communication between staff and between shifts results in poor adherence to toileting schedules (Resnick et al., 2006). Staff also need to be knowledgeable and skilled in assessing and treating urinary incontinence to ensure a prompted voiding program has beneficial client outcomes (DuMoulin et al., 2005).	+

The RNAO panel, supported by evidence from qualitative studies of staff attitudes and practices related to continence promotion, recommends a gradual implementation of this guideline (Resnick et al., 2006; Tauton et al., 2005). Successful implementation of this guideline is best achieved by starting with one or two clients. Managing the competing demands of clients requiring toileting assistance has been cited as a barrier to implementation of prompted voiding by nursing staff (Resnick et al., 2006; Tauton et al., 2005). Refer to Appendices G and H for information on projects focusing on improving continence care in complex continuing care.

Recommendation 15

Organizations are encouraged to establish an **interprofessional** team approach to continence care.

Level of Evidence: IV

The discussion of evidence found on pg 25 and 26 of the guideline has been revised to reflect wording change and additional literature supports:

Discussion of Evidence

An **interprofessional** team approach to continence care is crucial to implementing optimal continence care (Ostaskiewicz, 2006; Resnick et al., 2006; Taunton et al., 2005). The members of the team may include: nurses, physiotherapists, occupational therapists, clinical pharmacists, registered dietitians, unregulated care providers, social workers, attending physicians and specialists. Recognizing overlap in some roles, it is important that the team work together to help each client maintain the highest level of continence possible while promoting clients' independence and self-esteem.

Nurses work collaboratively with an **interprofessional** team for rehabilitative and restorative care. Physiotherapists assess mobility, transfers, balance and strength. Occupational therapists assess physical and social environments, including ability to perform ADLs, such as managing clothing and toileting. Together, the physiotherapists, occupational therapists and nurses carry out the rehabilitative/restorative/maintenance balance and mobility treatment plan (Rodriguez et al., 2007). Clinical pharmacists can assist with the medication review to identify medications that may be contributing to incontinence. Registered dieticians can support decisions regarding dietary modifications to fluid intake, caffeine intake and fibre intake. Social workers may address the emotional aspects of incontinence, which may include assisting with financial planning for supplies and services.

As an example of an **interprofessional** team approach to continence care, in 2006, stakeholders from various long-term care homes in Ontario and representatives of the Toronto Best Practice Implementation Steering Committee developed a resource in the form of a policy and procedure to deal with this important concern. The roles and responsibilities of each health professional team member are clearly outlined in the document (Toronto Best Practice in LTC Initiative, 2006).

Recommendation 16	
Nursing best practice guidelines can be effectively implemented only where there are adequate planning, resources, organizational and administrative support, as well as the appropriate facilitation of the change process by skilled facilitators. The implementation of the guideline must take into account local circumstances and should be disseminated through an active educational and training program. In this regard, RNAO (through a panel of nurses, researchers and administrators) has developed the *Toolkit: Implementation of Clinical Practice Guidelines*, based on available evidence, theoretical perspectives and consensus. The Toolkit is recommended for guiding the implementation of the RNAO guideline *Promoting Continence Using Prompted Voiding*. Level of Evidence: IV	✓

Appendices

The following appendices have been revised to reflect the most current literature.

Appendix C: Individuals Likely to Benefit from Prompted Voiding	
The following paragraphs have been added following the list of factors found on page 41 of the guideline: The best predictor of an individual's responsiveness to prompted voiding is his or her success during a trial of prompted voiding. Many people that respond to prompted voiding show a clinically significant increase in appropriate toileting behaviour and continence levels during a three-day trial, though maximal response to the treatment may not be realized until after several weeks of prompted voiding (Lyons & Pringle Specht, 1999). Although three days is ideal, two days is an acceptable minimum. A third day of prompted voiding can be offered to residents who fall short of appropriately toileting two-thirds of the time but who show behavioural and verbal evidence that they are motivated to stay dry (Borun Center for Gerontological Research, 2008). Prompted voiding has been shown to decrease the number of incontinent episodes per day and increase the number of continent voids. It can be used with persons who have physical or mental/cognitive impairments or little ability to determine how best to meet their needs (Dumoulin et al., 2005; Fink et al., 2008).	+

The following chart has been added, to follow the "Communication Technique" chart on page 41:

Steps of Prompted Voiding Technique and Caregiver Behaviours

Prompted Voiding Technique	Caregiver Behaviours
Approach person at scheduled prompted voiding time (15 minutes before or after assignment is acceptable)	Monitor
Greet individual	Prompt
Wait 5 seconds for individual to self-initiate request to toilet	Prompt
Ask person if he or she is wet or dry	Prompt
Physically check person to determine continence status.	Monitor
Give social feedback. Praise, if dry. No comment, if wet.	Praise
Prompt individual to toilet (regardless of continence status).	Prompt
Offer person assistance with toileting.	Prompt
Give social feedback. Praise desired toileting behaviour.	Praise
Inform individual of the time of next scheduled prompted voiding session.	Prompt
Encourage individual to hold urine in bladder until next	Prompt
scheduled prompted voiding session.	Prompt
Encourage individual to ask for toileting assistance, as needed	Prompt
Record results of prompted voiding session on urinary continence monitoring form.	Monitor

Reprinted with permission from SLACK Incorporated: Lyons, S.S., Pringle Specht, J.K. (2000). Prompted voiding protocol for individuals with urinary incontinence. *The Journal of Gerontological Nursing*, *26*(6), 5-13.

Appendix E: List of Resources and Websites:

The following items have been added to the list on page 45 of the guideline:

Resource	Program
Borun Center for Gerontological Research UCLA Division of Geriatrics www.geronet.ucla.edu/centers/borun	Incontinence Management
• Registered Nurses' Association of Ontario http://ltctoolkit.rnao.ca/	Continence/Constipation Workshop for RNs in Long-Term Care. (Cassel, 2007)

+

Additional Appendices

The following appendices have been added:

Appendix G: IC5 Collaborative Project The IC 5 Collaborative Project (IC 5: *Improving Continence Care in Complex Continuing Care*) was the first multi-hospital quality improvement project led by the Hospital Report Research Collaborative (HRRC) aimed at the complex continuing care sector. The project was sponsored by the Ontario Women's Health Council (OWHC). The collaborative was based on an internationally applied model for achieving breakthrough improvement, pioneered by the Institute for Healthcare Improvement. The project included 12 hospitals who worked together to improve continence care processes, practices and patient outcomes within their organizations. The Plan-Do-Study-Act (PDSA) improvement cycles support a gradual approach to change - one resident at a time – which is a major success factor in changing practice. Visit the www.hospitalreport.ca web page to review the IC5 evaluation reports.	**NEW**
Appendix H: IC3—Improving Continence Care Collaborative IC3 is an offshoot of the IC5 project. With funding from the Senior's Health Research Transfer Network (SHRTN), ten long-term care home teams in eastern Ontario came together in 2006 to form a Community of Practice to improve continence care. Using a quality improvement approach, six long-term care homes completed the full-year commitment. Many of those teams are still working to improve continence at their respective long-term care homes. The collaborative uses the Rapid Cycle Method of Improvement to enable participating teams to make small incremental changes in their practice to work toward improving the continence of their residents. Homes use PDSA cycles to plan and implement the changes. Simple measurement tools document their successes and early wins. Examples of these improvements are prompted voiding programs and toileting programs. Individualized approaches, like using pull-up continent products with appropriate residents during the day time, have helped to improve residents' dignity and allow them to attend activities of their choosing and not have to wear an incontinent brief. Many residents are now "high and dry" throughout the daytime hours because of these interventions. Homes have increased the urinary continence of their residents, while decreasing constipation, urinary tract infections and pressure ulcers. Initially, long-term care home teams met in person for four learning sessions. In between those learning sessions, there were action periods with the residents at the local level. Monthly teleconferences helped to keep the improvement teams on track and share successes, strategies and challenges. In the last two phases, the participating teams met virtually via Ontario Telemedicine Network (OTN) videoconferencing facilities. In Phase 4 (2010-11), 32 homes came on board with participants from across the province including Northwestern Ontario, the Greater Toronto area and Renfrew County. Several homes met together at OTN sites where they were joined by one of the coaches or co-leads of the project. In total over 50 long-term care homes have participated in IC3 since its inception.	**NEW**

Definition of Terms

The following term has been added to the definition of terms on page 14 of the guideline:

Habit Retraining Habit retraining is a form of toileting assistance given by a caregiver to adults with urinary incontinence. It involves the identification of an incontinent person's natural voiding pattern and the development of an individualized toileting schedule, which pre-empts involuntary bladder emptying (Ostaszkiewicz, Chestney, & Roe, 2004).	**NEW**

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Notes

Notes

Revised March 2005

Nursing Best Practice Guideline

Promoting Continence Using Prompted Voiding

This program is funded by the Government of Ontario

0-920166-55-5

RNAO Registered Nurses' Association of Ontario
L'Association des infirmières et infirmiers autorisés de l'Ontario

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