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# A Proactive Approach to Bladder and Bowel Management in Adults

Fourth Edition



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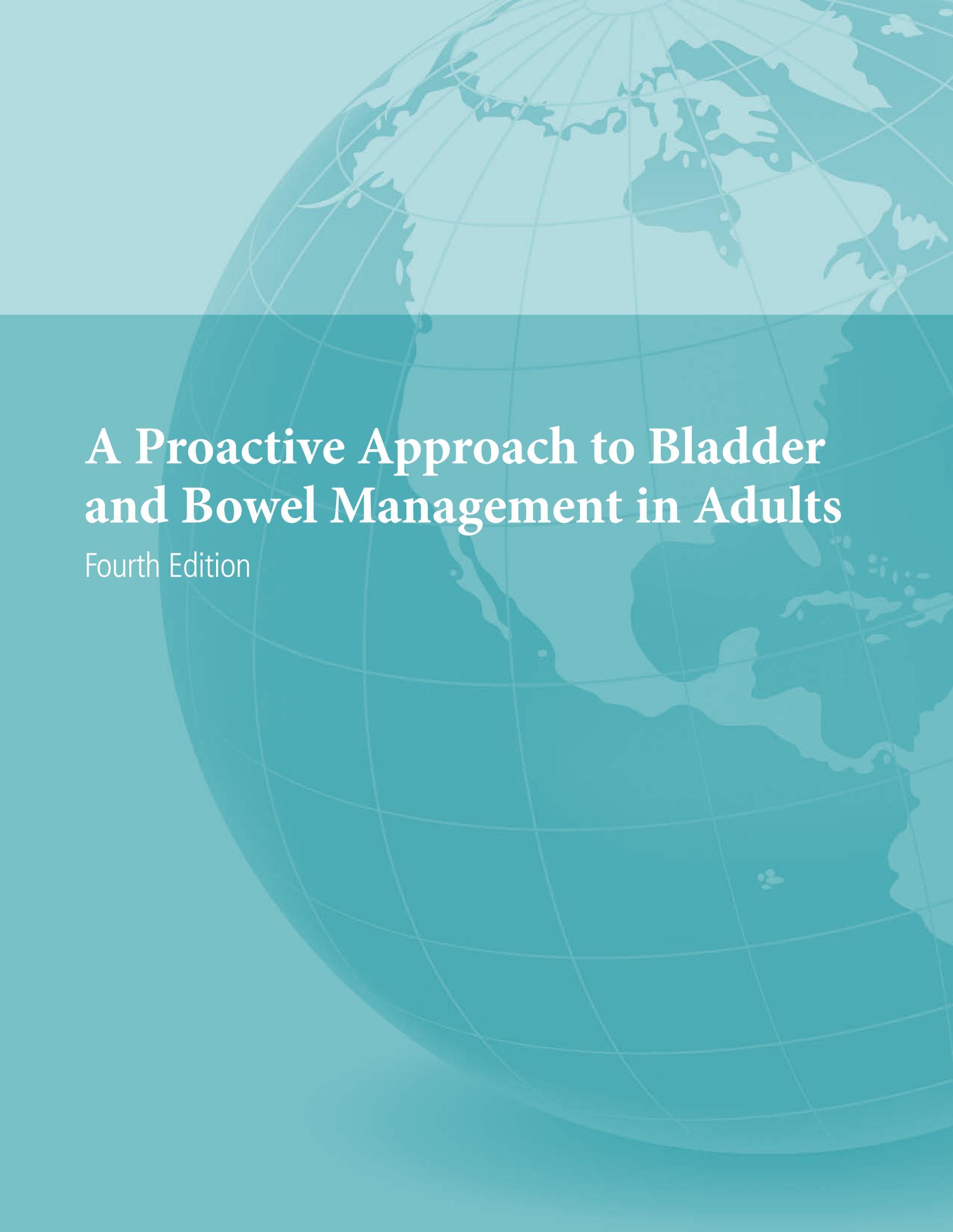
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In the context of RNAO best practice guideline development, the term "conflict of interest" (COI) refers to situations in which a RNAO staff member or expert panel member's financial, professional, intellectual, personal, organizational or other relationships may compromise their ability to conduct panel work independently. Declarations of COI that might be construed as constituting a perceived and/or actual conflict were made by all members of the RNAO expert panel prior to their participation in guideline development work using a standard form. Expert panel members also updated their COI at the beginning of each guideline meeting and prior to guideline publication. Any COI declared by an expert panel member was reviewed by the RNAO best practice guideline development and research team and expert panel co-chairs. No limiting conflicts were identified. See "Declarations of Conflicts of Interest Summary" at <https://rnao.ca/bpg/guidelines/proactive-approach-bladder-and-bowel-management-adults>.

## **Contact Information**

Registered Nurses' Association of Ontario  
500-4211 Yonge Street, Toronto, Ontario, M2P 2A9  
Website: [www.RNAO.ca/bpg](http://www.RNAO.ca/bpg)



# **A Proactive Approach to Bladder and Bowel Management in Adults**

Fourth Edition

# Greetings from Doris Grinspun,

## Chief Executive Officer, Registered Nurses' Association of Ontario



The Registered Nurses' Association of Ontario (RNAO) is delighted to present the fourth edition of the clinical best practice guideline (BPG) *A Proactive Approach to Bladder and Bowel Management in Adults*. Evidence-based practice supports the excellence in service that health providers are committed to delivering every day.

We offer our heartfelt thanks to the many stakeholders who make our vision for BPGs a reality. First, and most important, we thank the Government of Ontario, which has recognized RNAO's capacity to lead a program that has gained worldwide recognition and has committed to funding it. We also thank the co-chairs of the RNAO expert panel, Kathleen Hunter (professor, University of Alberta) and Jennifer Skelly (associate professor, McMaster University), for their invaluable expertise and stewardship of this BPG. Thanks to RNAO staff Nafsin Nizum (guideline development lead), Greeshma Jacob (guideline development methodologist), Verity Scott and Glynis Gittens (guideline development project coordinators), Megan Bamford (former associate director, guideline development and evaluation) and the rest of the RNAO best practice guideline development and research team for their intense and expert work in the production of this BPG. Special thanks to the expert panel for generously providing their time, knowledge and perspective to deliver a rigorous and robust evidence-based resource that will guide the education and practice of millions of health providers. We couldn't have done it without you!

Successful uptake of BPGs requires a concerted effort from educators, clinicians, employers, policy-makers, researchers and funders. The nursing and health communities, with their unwavering commitment and passion for excellence in patient care, provide the expertise and countless hours of volunteer work essential to developing new and next edition BPGs. Employers have responded enthusiastically by becoming Best Practice Spotlight Organizations<sup>®</sup> (BPSOs<sup>®</sup>): they have sponsored best practice champions, implemented BPGs and evaluated their impact on patient and organizational outcomes. Governments at home and abroad have also joined in this awesome journey. Together, we are building a culture of evidence-based practice that benefits everyone.

We invite you to share this BPG with your colleagues from nursing and other professions, with the patient advisors who are partnering within organizations, and with the government agencies with which you work. We have so much to learn from one another. Together, we must ensure that the public receives the best possible care every time they come in contact with us—making them the real winners of this great effort!

A handwritten signature in black ink that reads "Doris Grinspun". The signature is written in a cursive style with a long horizontal flourish at the end.

Doris Grinspun, RN, MSN, PhD, LLD (hon), Dr (hc), FAAN, O. ONT.  
Chief Executive Officer  
Registered Nurses' Association of Ontario

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## How to Use This Document

This **best practice guideline**<sup>G\*</sup> (BPG) is a comprehensive document that provides guidance and resources for **evidence-based nursing practice**<sup>G</sup>. It is not intended to be a manual or “how-to” guide; rather, it is a tool to guide best practices and enhance decision making for **nurses**<sup>G</sup>, the **interprofessional team**<sup>G</sup>, educators, health-service organizations, academic institutions, and **persons**<sup>G</sup> and their **support network**<sup>G</sup>. This BPG should be reviewed and applied in accordance with the needs of individual health-service organizations, academic institutions or other practice settings, and with the preferences of persons (aged 18 years and older) living with **urinary incontinence**<sup>G</sup>, **fecal incontinence**<sup>G</sup> and/or **constipation**<sup>G</sup>. This document provides evidence-based **recommendation**<sup>G</sup> statements and descriptions of: (a) practice and organizational policy, (b) benefits and harms, (c) values and preferences, and (d) health equity considerations.

Nurses, members of the interprofessional team, educators and administrators who lead and facilitate practice changes will find this document invaluable for developing policies, procedures, protocols and educational programs to support service delivery. Nurses and members of the interprofessional team in direct care will benefit from reviewing the recommendations and supporting evidence.

If your health-service organization is adopting this BPG, the Registered Nurses’ Association of Ontario (RNAO) recommends you follow these steps:

1. Assess your existing policies, procedures, protocols and educational programs in relation to the **good practice statements**<sup>G</sup>, recommendations and supporting discussions of evidence in this BPG.
2. Identify existing needs or gaps in your policies, procedures, protocols and educational programs.
3. Note the recommendations and good practices that are applicable to your setting and that can be used to address your organization’s existing needs or gaps.
4. Develop a plan for implementing recommendations, sustaining best practices and evaluating **outcomes**<sup>G</sup>.

Implementation resources—including the RNAO *Toolkit: Implementation of Best Practice Guidelines, Second Edition*—are available at [RNAO.ca](http://RNAO.ca). A description of the Toolkit can be found in **Appendix T**. For more information, please see the Implementation Strategies section (p.79).

All RNAO BPGs are available for download, free of charge, from the RNAO website at [RNAO.ca/bpg](http://RNAO.ca/bpg). To locate a particular BPG, search by keyword or browse by topic.

We are interested in hearing your feedback on this BPG and how you have implemented it. Please share your story with us at [RNAO.ca/contact](http://RNAO.ca/contact).

\* Throughout this document, terms that appear in **boldface** and are marked with a superscript G (<sup>G</sup>) can be found in the Glossary of Terms in **Appendix A**.

# Purpose and Scope

## Purpose

RNAO's BPGs are systematically developed, evidence-based documents that include recommendations on specific clinical, healthy work environment and health system topics. They are intended for nurses, members of the interprofessional team in direct care positions, educators, administrators and executives, policy-makers, researchers, and persons with lived experience in health-service and academic organizations. BPGs promote consistency and excellence in clinical care, administrative policies, procedures and education, with the aim of achieving optimal health outcomes for people, communities and the health system as a whole.

This BPG replaces the RNAO BPGs *Promoting Continence Using Prompted Voiding (2)* and *Prevention of Constipation in the Older Adult Population (3)*, both of which were last updated in 2011. This BPG focuses on bladder and bowel management in adults (aged 18 years and older). In particular, this BPG provides evidence-based recommendations for effective strategies to support adults who live with urinary incontinence, fecal incontinence and/or constipation that will improve quality of care and lead to positive health outcomes. In this BPG, the terms "adult" and "person" will be used interchangeably. This BPG recognizes that persons who live with urinary incontinence, fecal incontinence and/or constipation and their support networks are experts in their health and decision making; collaboration among the interprofessional team, the person receiving care and their support network (if needed) is essential therefore to achieving improved health outcomes. The recommendations are primarily intended for members of the interprofessional team who are not **continence specialists**<sup>G</sup>.

In September 2018, RNAO convened an expert panel to determine the scope of this next edition BPG and to develop **recommendation questions**<sup>G</sup> to inform the **systematic reviews**<sup>G</sup>. The expert panel included persons with lived experience, and it was interprofessional in composition, comprised of individuals with knowledge and experience in clinical practice, education and research across a range of health-service organizations, academic institutions, practice areas and sectors. These experts shared their insights on supporting and caring for persons who live with urinary incontinence, fecal incontinence and/or constipation across the continuum of care (e.g., acute care, long-term care, community and primary care, and rehabilitation).

A comprehensive review and analysis was completed by the RNAO best practice guideline development and research team and the expert panel to determine the scope and priority recommendation questions for this BPG (see [Appendix D](#)).

## Scope

To determine the scope of this BPG, the RNAO best practice guideline development and research team conducted the following steps:

- reviewed the previous RNAO BPGs, *Promoting Continence Using Prompted Voiding (2)* and *Prevention of Constipation in the Older Adult Population (3)*;
- conducted a guideline search and gap analysis;
- led 11 telephone key informant interviews with **health providers**<sup>G</sup>, nursing educators, nurse researchers and a patient advocate;
- held two telephone discussion group sessions with health providers, nurse managers and nurse educators; and
- consulted with the expert panel.

This BPG is to be used by nurses, members of the interprofessional team and caregivers across the continuum of care (e.g., acute care, long-term care, community and primary care, and rehabilitation), and in all domains of practice (i.e., administration, clinical, education, policy and research). It is also to be used by organizations that employ nurses and members of the interprofessional team, including health-service organizations and academic institutions.

## Key Concepts Used in This Best Practice Guideline

**Constipation:** The difficult and/or infrequent passage of stools (less than three bowel movements per week) (4). Constipation may be acute or chronic (lasting more than three months), and it may be in response to a variety of physiological, mechanical and medically related factors, including medication use (5). However, the most common type is functional constipation, for which there is no underlying organic or medically identified cause (5).

**Fecal incontinence:** The involuntary loss of liquid or solid stools (6). Fecal incontinence can be caused by physiological, mechanical and medical factors, including (but not limited to) constipation, muscle injury or muscular weakness, nerve damage, neurologic diseases, loss of stretch in the rectum, hemorrhoids or rectal prolapse (7).

**Urinary incontinence:** The involuntary leakage of urine caused by physiological, mechanical and medical factors, including (but not limited to): weak pelvic muscles, diabetes, certain medications, constipation and bladder infection (6, 8). See p. 33 for the common types of urinary incontinence.

**Continence specialist:** For the purposes of this BPG, a continence specialist refers to a health provider with advanced knowledge and expertise in the assessment and management of persons experiencing urinary incontinence, fecal incontinence and/or constipation. Continence care specialists include: gynecologists/urogynecologists, urologists, gastroenterologists, colorectal surgeons, nurse continence advisors (NCA), nurses specialized in wound, ostomy, and continence care (NSWOC), pelvic health physiotherapists and occupational therapists.

**Health provider:** Refers to both regulated workers (e.g., nurses, physicians, dietitians and social workers) and unregulated workers (e.g., personal support workers) who are part of the interprofessional team.

**Regulated health provider:** In Ontario, the *Regulated Health Professional Act, 1991* (RHPA) provides a framework for regulating 23 health professions, outlining the scope of practice and the profession-specific controlled or authorized acts that each regulated professional is authorized to perform when providing health care and services (9).

**Unregulated health provider:** Unregulated health providers fulfill a variety of roles in areas that are not subject to the RHPA. They are accountable to their employers but not to an external regulating professional body (e.g., the College of Nurses of Ontario). Unregulated health providers fulfill their roles and tasks as determined by their employer. Unregulated health providers only have the authority to perform a controlled act as set out in the RHPA if the procedure falls under one of the exemptions set out in the Act (10).

**Interprofessional team:** A team comprised of multiple health providers -- regulated and unregulated -- who work collaboratively with the affected person and their chosen family, to deliver comprehensive and quality health services to people within, between and across health-care settings (11). Key interprofessional team members supporting persons living with urinary incontinence, fecal incontinence and/or constipation may include: nurses (registered nurses, registered practical nurses, nurse practitioners, clinical nurse specialists, nurse continence advisors [NCA],

nurses specialized in wound, ostomy and continence [NSWOC]), physicians (general practitioners, urogynecologists, urologists, colorectal surgeons), personal support workers, physiotherapists, occupational therapists, dietitians and pharmacists. It is important to emphasize that the affected person and their support network are at the centre as active participants of the team. Although this BPG is applicable to various interprofessional team members, the recommendations are primarily intended for health providers in direct care positions who are not specialists in continence care.

## Topics Outside the Scope of This Best Practice Guideline

The following conditions and topics are not covered within the scope of this BPG:

- the insertion and care of urinary catheters;
- pharmaceutical interventions for the prevention and management of urinary incontinence and fecal incontinence;
- surgical procedures for the management of urinary incontinence, fecal incontinence and/or constipation; and
- pediatric populations (i.e., persons younger than 18 years of age) living with urinary incontinence, fecal incontinence and/or constipation.

## Recommendation Questions

Recommendation questions are priority areas of care identified by the expert panel that require a synthesis of the evidence to answer. These recommendation questions inform the **PICO research questions<sup>G</sup>** (population, intervention, comparison, outcomes) that guide the systematic reviews and subsequently inform recommendations. The following were the priority recommendation questions and outcomes developed by the expert panel that informed the development of this BPG. The outcomes are presented in order of importance, as rated by the expert panel.

### Recommendation Questions for Urinary Incontinence

- **Recommendation Question #1:** Should **toileting strategies<sup>G</sup>** be recommended to improve outcomes in persons living with urinary incontinence?  
**Outcomes:** Episodes of incontinence, quality of life and use of incontinence products.
- **Recommendation Question #2:** Should physical activity be recommended to improve outcomes in persons living with urinary incontinence?  
**Outcomes:** Episodes of incontinence and **physical limitations<sup>G</sup>**.
- **Recommendation Question #3:** Should an interprofessional approach be recommended to improve outcomes in persons living with urinary incontinence?  
**Outcomes:** Quality of life, patient satisfaction and episodes of incontinence.

### Recommendation Questions for Fecal Incontinence and/or Constipation

- **Recommendation Question #4:** Should physical activity be recommended to improve outcomes in persons living with fecal incontinence and/or constipation?  
**Outcomes:** Episodes of incontinence, constipation and quality of life.

- **Recommendation Question #5:** Should adequate intake of fibre and/or fluids be recommended to improve outcomes in persons living with fecal incontinence and/or constipation?

**Outcomes:** Frequency of bowel movements, stool consistency, **laxative**<sup>G</sup> use, episodes of incontinence and quality of life.

- **Recommendation Question #6:** Should an interprofessional approach be recommended to improve outcomes in persons living with fecal incontinence and/or constipation?

**Outcomes:** Quality of life, access to care, patient satisfaction, episodes of incontinence and constipation.

- **Recommendation Question #7:** Should a **bowel protocol**<sup>G</sup> be recommended to improve outcomes in persons living with fecal incontinence and/or constipation?

**Outcomes:** Constipation and laxative use.

**Note:** These priority recommendation questions are condensed versions of the more comprehensive PICO research questions developed by the expert panel to guide the systematic reviews and development of this BPG. For more information on the PICO research questions and the detailed process of how the expert panel determined the priority recommendation questions and outcomes, please see [Appendix D](#).

## Good Practice Statements and Recommendations

The recommendations in this BPG address unique and overlapping areas of care for persons living with urinary incontinence, fecal incontinence and/or constipation. For persons living with urinary incontinence, recommendations focus on promoting toileting strategies, physical activity and the implementation of an interprofessional approach to care within health-service organizations. For persons living with fecal incontinence, recommendations focus on fibre intake and the implementation of an interprofessional approach to care within health-service organizations. For persons living with constipation, recommendations focus on promoting adequate intake of fluids and fibre, physical activity, the implementation of a bowel protocol and an interprofessional approach to care within health-service organizations.

The evidence-based recommendations in this BPG are applicable to all practice settings where persons who live with urinary incontinence, fecal incontinence and/or constipation are accessing services (e.g., acute care, long-term care, primary and community care, and rehabilitation settings).

In this BPG, no recommendation questions were identified that addressed the need for an assessment of persons living with urinary incontinence, fecal incontinence and/or constipation prior to developing a plan of care or carrying out interventions. Please refer to the good practice statements on assessment that nurses and the interprofessional team can use in their practice. The good practice statements are believed to be so beneficial that conducting a systematic review to prove their efficacy would be unreasonable. The resulting statements are not based on a systematic review, and they do not receive ratings of the certainty or confidence in their evidence or strength (i.e., a rating of conditional or strong) (12).

Given that physical activity for the management of urinary incontinence was considered within the scope of this BPG, the expert panel identified the need to include a recommendation on **pelvic floor muscle training (PFMT)**<sup>G</sup>. There is current guidance and substantial evidence supporting the use of PFMT in women who live with urinary incontinence; as a result, this BPG includes an **adopted recommendation**<sup>G</sup> (13) from the existing high-quality guideline *Urinary Incontinence and Pelvic Organ Prolapse in Women: Management* by the National Institute for

Health and Care Excellence (NICE), which was recently updated in June 2019 (14). Details regarding how the recommendation has been adopted for this BPG can be found in [Appendix D](#). It is important to note that this recommendation is intended for members of the interprofessional team who have advanced knowledge and training in pelvic floor muscle training.

Furthermore, no recommendation questions were identified that addressed the core education and training strategies required for curricula or the ongoing education and professional development of nurses or the interprofessional team in order to support persons living with urinary incontinence, fecal incontinence and/or constipation. Please refer to [Appendix C](#) for **education statements**<sup>G</sup> that educators, managers, administrators, and academic and professional institutions can use to support the uptake of this BPG.

See [Appendix G](#) and [Appendix H](#) for algorithms that depict the good practice statements and all recommendations for urinary incontinence, and constipation and fecal incontinence, respectively, in this BPG that can be implemented in practice settings.

## RNAO BPGs and Other Resources That Align with This BPG

Other RNAO BPGs and evidence-based resources may support implementation of this BPG. See [Appendix B](#) for RNAO BPGs and other evidence-based resources on the following related topics:

- client-centred learning;
- falls;
- implementation science, implementation frameworks and resources;
- interprofessional collaboration; and
- person- and family-centred care.

# Interpretation of Evidence and Recommendation Statements

RNAO BPGs are developed using the **Grading of Recommendations Assessment, Development and Evaluation (GRADE)<sup>G</sup>** and **Confidence in the Evidence from Reviews of Qualitative Research (CERQual)<sup>G</sup>** methods. For more information about the guideline development process, including the use of GRADE and GRADE-CERQual methods, please refer to [Appendix D](#).

## Certainty of Evidence

The certainty of evidence (i.e., the level of confidence we have that an estimate of effect is true) for quantitative research is determined using GRADE methods (15). After synthesizing the evidence for each prioritized outcome, the certainty of evidence is assessed. The overall certainty of evidence is determined by considering the certainty of evidence across all prioritized outcomes per recommendation. GRADE categorizes the overall certainty of evidence as *high*, *moderate*, *low* or *very low* (see **Table 1** for the definition of these categories).

**Table 1: Certainty of Evidence**

CERTAINTY OF EVIDENCE	DEFINITION
<b>High</b>	We are very confident that the true effect lies close to that of the estimate of the effect.
<b>Moderate</b>	We are moderately confident in the effect estimate: the true effect is likely to be close to the estimate of the effect, but there is a possibility that it is substantially different.
<b>Low</b>	Our confidence in the effect estimate is limited: the true effect may be substantially different from the estimate of the effect.
<b>Very low</b>	We have very little confidence in the effect estimate: the true effect is likely to be substantially different from the estimate of effect.

Source: Reprinted from: The GRADE Working Group. Quality of evidence. In: Schunemann H, Brozek J, Guyatt G, et al., editors. Handbook for grading the quality of evidence and the strength of recommendations using the GRADE approach [Internet]. [place unknown; publisher unknown]; 2013 [cited 2018 Aug 31]. Table 5.1, Quality of evidence grades. Available from: <https://gdt.gradeapro.org/app/handbook/handbook.html#h.wsfivfhuxv4r>. Reprinted with permission.

## Confidence in Evidence

The confidence in evidence for **qualitative research**<sup>G</sup> (i.e., the extent to which the review finding is a reasonable representation of the phenomenon of interest) is determined using GRADE-CERQual methods (hereafter referred to as CERQual) (16). For qualitative evidence, an overall judgment of the confidence is made per finding in relation to each recommendation, as relevant. CERQual categorizes the confidence in evidence as *high*, *moderate*, *low* or *very low*. See **Table 2** for the definitions of these categories.

**Table 2: Confidence in Evidence**

CONFIDENCE IN EVIDENCE	DEFINITION
<b>High</b>	It is highly likely that the finding is a reasonable representation of the phenomenon of interest.
<b>Moderate</b>	It is likely that the finding is a reasonable representation of the phenomenon of interest.
<b>Low</b>	It is possible that the review finding is a reasonable representation of the phenomenon of interest.
<b>Very low</b>	It is not clear whether the review finding is a reasonable representation of the phenomenon of interest.

Source: Reprinted from: Lewin S, Booth A, Glenton C, et al. Applying GRADE-CERQual to qualitative evidence synthesis findings: introduction to the series. *Implement Sci.* 2018;13(Suppl 1):1-10. Table 3, Description of level of confidence in a review finding in the CERQual approach; p. 6. Reprinted with permission.

**Note:** The assigned certainty and/or confidence of evidence can be found directly below each recommendation statement. For more information on the process of determining the certainty and/or confidence of the evidence and the documented decisions made by RNAO guideline development methodologists, see [Appendix D](#).

## Strength of Recommendations

Recommendations are formulated as *strong* or *conditional* by considering the *certainty* and/or *confidence in evidence* and the following key criteria (see Discussion of Evidence, below, for definitions):

- balance of benefits and harms,
- values and preferences, and
- health equity.

According to Schunemann et al., “a strong recommendation reflects the expert panel’s confidence that the desirable effects of an intervention outweigh its undesirable effects (strong recommendation *for* an intervention) or that the undesirable effects of an intervention outweigh its desirable effects (strong recommendation *against* an intervention)” (15). In contrast, “a conditional recommendation reflects the expert panel’s confidence that the desirable effects

probably outweigh the undesirable effects (conditional recommendation for an intervention) or undesirable effects probably outweigh desirable effects (conditional recommendation against an intervention), but some uncertainty exists” (15). **Table 3** outlines the implications of strong and conditional recommendations.

**Table 3: Implications of Strong and Conditional Recommendations**

STRONG RECOMMENDATION	CONDITIONAL RECOMMENDATION
<ul style="list-style-type: none"> <li>■ The benefits of a recommended action outweigh the harms. Therefore, most persons should receive the recommended course of action.</li> </ul>	<ul style="list-style-type: none"> <li>■ The benefits of a recommended course of action probably outweigh the harms. Therefore, some persons could receive the recommended course of action.</li> </ul>
<ul style="list-style-type: none"> <li>■ Most persons would want the recommended course of action and a small portion would not.</li> </ul>	<ul style="list-style-type: none"> <li>■ The majority of persons in this situation would want the suggested course of action, but many would not.</li> </ul>
<ul style="list-style-type: none"> <li>■ There is little variability in values and preferences among persons in this situation.</li> <li>■ There is a need to consider the person’s circumstances, preferences and values.</li> </ul>	<ul style="list-style-type: none"> <li>■ There is greater variability in values and preferences, or there is uncertainty about typical values and preferences among persons in this situation.</li> <li>■ There is a need to consider the person’s circumstances, preferences and values more carefully than usual.</li> </ul>
<ul style="list-style-type: none"> <li>■ The recommendation can be adapted as policy in most situations</li> </ul>	<ul style="list-style-type: none"> <li>■ Policy-making will require substantial debate and involvement of many stakeholders. Policies are also more likely to vary between regions.</li> </ul>

Source: Adapted from: The GRADE Working Group. Quality of evidence. In: Schunemann H, Brozek J, Guyatt G, et al., editors. Handbook for grading the quality of evidence and the strength of recommendations using the GRADE approach [Internet]. [place unknown; publisher unknown]; 2013 [cited 2018 Aug 31]. Table 6.1, Implications of strong and weak recommendations for different users of guidelines. Available from: <https://gdt.gradepro.org/app/handbook/handbook.html#h.wsfvfhuxv4r>.

**Note:** The strength of each recommendation statement is detailed directly below it and in the **Summary of Recommendations** table. For more information on the process used by the expert panel to determine the strength of each recommendation, please see **Appendix D**.

## Discussion of Evidence

The Discussion of Evidence that follows each recommendation includes the following main sections.

1. **Benefits and Harms:** Identifies the potential desirable and undesirable outcomes reported in the literature when the recommended practice is used. Content in this section solely includes research from the systematic review.
2. **Values and Preferences:** Denotes the relative importance or worth placed on health outcomes derived from following a particular clinical action from a person-centered perspective. Content for this section may include research from the systematic reviews and, when applicable, observations and/or considerations from the expert panel.
3. **Health Equity:** Identifies the potential impact that the recommended practice could have on health across different populations or settings and/or the barriers to implementing the recommended practice in particular settings. This section may include research from the systematic reviews and, when applicable, observations and/or considerations from the expert panel.
4. **Expert Panel Justification of Recommendation:** Provides a rationale for why the expert panel made the decision to rate a recommendation as strong or conditional.
5. **Practice Notes:** Highlights pragmatic information for nurses and members of the interprofessional team. This section may include supporting evidence from the systematic review and/or from other sources (e.g., the expert panel).
6. **Supporting Resources:** Includes a list of relevant resources (e.g., websites, books and organizations) that support the recommendations. Content listed in this section was assessed based on five criteria: accessibility, credibility, quality, relevancy and timeliness of publication (published within the last 10 years). Further details about this process and the five criteria are outlined in [Appendix D](#). The list is not exhaustive and the inclusion of a resource in one of these lists does not imply an endorsement from RNAO. Some recommendations may not have any identified supporting resources.

# Summary of Recommendations

This BPG replaces the RNAO BPGs *Promoting Continence Using Prompted Voiding (2)* and *Prevention of Constipation in the Older Adult Population (3)*, both of which were last updated in 2011.

## RECOMMENDATIONS FOR URINARY INCONTINENCE

### GOOD PRACTICE STATEMENT

**Good Practice Statement:**

The expert panel recommends that, prior to developing a plan of care or carrying out interventions, health providers conduct a focused initial assessment in collaboration with the person experiencing urinary incontinence.

*As a good practice, this statement does not require application of the GRADE system. For more information on this good practice statement in this BPG, please see p. 36.*

## RECOMMENDATIONS FOR URINARY INCONTINENCE

RECOMMENDATIONS FOR URINARY INCONTINENCE	STRENGTH OF THE RECOMMENDATION
<p><b>Recommendation Question #1:</b> Should toileting strategies be recommended to improve outcomes in persons living with urinary incontinence?</p> <p><b>Outcomes:</b> Episodes of incontinence, quality of life and use of incontinence products.</p>	
<p><b>Recommendation 1.1:</b> The expert panel recommends that health providers encourage individualized toileting strategies in persons living with urinary incontinence.</p>	<p>Strong</p>
<p><b>Recommendation Question #2:</b> Should physical activity be recommended to improve outcomes in persons living with urinary incontinence?</p> <p><b>Outcomes:</b> Episodes of incontinence and physical limitations.</p>	
<p><b>Recommendation 2.1:</b> The expert panel recommends that health providers encourage persons who live with urinary incontinence to engage in low-intensity physical activity, as tolerated.</p>	<p>Strong</p>

<p><b>Recommendation Question for Adopted Recommendation:</b> Should pelvic floor muscle training (PFMT) be recommended in women living with urinary incontinence?</p> <p><b>Outcomes:</b> Improvement in symptoms, patient satisfaction, health-related quality of life, sexual function, adverse events and anatomical assessment of pelvic organ prolapse.</p>	
<p><b>Adopted Recommendation:</b> The expert panel recommends that health providers offer women who live with stress or mixed urinary incontinence a trial of supervised PFMT for at least three months as first-line management. A comprehensive assessment should be conducted to determine the applicability of PFMT for these women.</p> <p><i>This is an adopted recommendation from Incontinence and Pelvic Organ Prolapse in Women: Management (14).</i></p>	<p>Strong</p>
<p><b>Recommendation Question #3:</b> Should an interprofessional approach be recommended to improve outcomes in persons living with urinary incontinence?</p> <p><b>Outcomes:</b> Quality of life, patient satisfaction and episodes of incontinence.</p>	
<p><b>Recommendation 3.1:</b> The expert panel suggests that health-service organizations implement an interprofessional approach to providing care for persons living with urinary incontinence.</p>	<p>Conditional</p>

## RECOMMENDATIONS FOR FECAL INCONTINENCE AND/OR CONSTIPATION

### GOOD PRACTICE STATEMENT

#### Good Practice Statement:

The expert panel recommends that, prior to developing a plan of care or carrying out interventions, health providers conduct a focused initial assessment in collaboration with the person experiencing fecal incontinence and/or constipation.

*As a good practice, this statement does not require application of the GRADE system. For more information on this good practice statement in this BPG, please see p. 55.*

RECOMMENDATIONS FOR FECAL INCONTINENCE AND/OR CONSTIPATION	STRENGTH OF THE RECOMMENDATION
<p><b>Recommendation Question #4:</b> Should physical activity be recommended to improve outcomes in persons living with fecal incontinence and/or constipation?</p> <p><b>Outcomes:</b> Episodes of incontinence, constipation and quality of life.</p>	
<p><b>Recommendation 4.1:</b> The expert panel recommends that as part of a wider multicomponent program, health providers encourage persons living with constipation to engage in low-intensity physical activity for about 30-60 minutes (as tolerated) at least three times a week to help manage constipation.</p>	<p>Strong</p>
<p><b>Recommendation Question #5:</b> Should adequate intake of fibre and/or fluids be recommended to improve outcomes in persons living with fecal incontinence and/or constipation?</p> <p><b>Outcomes:</b> Frequency of bowel movements, stool consistency, laxative use, episodes of incontinence and quality of life.</p>	
<p><b>Recommendation 5.1:</b> The expert panel suggests that health providers counsel persons on adequate fibre intake to prevent and manage constipation.</p>	<p>Conditional</p>
<p><b>Recommendation 5.2:</b> The expert panel recommends that as part of a wider multicomponent program, health providers counsel persons living with constipation on adequate fluid intake to help manage constipation.</p>	<p>Strong</p>
<p><b>Recommendation 5.3:</b> The expert panel suggests that health providers promote the option of using psyllium fibre supplements for persons living with fecal incontinence in the community.</p>	<p>Conditional</p>

<p><b>Recommendation Question #6:</b> Should an interprofessional approach be recommended to improve outcomes in persons living with fecal incontinence and/or constipation?</p> <p><b>Outcomes:</b> Quality of life, access to care, patient satisfaction, episodes of incontinence and constipation.</p>	
<p><b>Recommendation 6.1:</b> The expert panel suggests that health-service organizations implement an interprofessional approach to providing care for persons living with fecal incontinence and/or constipation.</p>	<p>Conditional</p>
<p><b>Recommendation Question #7:</b> Should a bowel protocol be recommended to improve outcomes in persons living with fecal incontinence and/or constipation?</p> <p><b>Outcomes:</b> Constipation and laxative use.</p>	
<p><b>Recommendation 7.1:</b> The expert panel recommends that health-service organizations implement a bowel protocol to manage constipation, which can be individualized.</p>	<p>Strong</p>



## Best Practice Guideline Evaluation

As you implement the recommendations in this BPG, we ask you to consider how you will monitor and evaluate its implementation and impact.

The Donabedian model informs the development of indicators for evaluating quality health care. It includes three categories: structure, process and outcome (Donabedian, 2005).

- Structure describes the required attributes of the health system or health-service organization to ensure quality care. It includes physical resources, human resources, and information and financial resources.
- Process examines the health-care activities being provided to, for and with persons or populations as part of the provision of quality care.
- Outcome analyzes the effect of quality care on the health status of persons and populations, health workforces, health-service organizations or health systems (Donabedian, 2005).

For additional information, please refer to the RNAO *Toolkit: Implementation of Best Practice Guidelines, Second Edition* (Registered Nurses' Association of Ontario, 2012).

The following measures are developed to support evaluation and quality improvement using Nursing Quality Indicators for Reporting and Evaluation<sup>®</sup> (NQUIRE<sup>®</sup>). **Table 4** provides the process indicators to evaluate the BPG recommendations related to urinary incontinence. **Table 5** provides the process indicators to evaluate the BPG recommendations related to fecal incontinence and/or constipation. **Table 6** provides outcome indicators to assess the impact of BPG implementation. Each table also identifies if the indicator aligns with other indicators in external data repositories and/or instruments. If the indicator exactly matches with existing indicator(s) from other external data repositories and/or instruments, then the indicator is described to have a full alignment.

It is important to evaluate evidence-based practice changes when implementing a BPG. Select the indicators most relevant to the practice setting. The following indicators will support quality improvement and evaluation.

**Table 4: Process Indicators for Evaluating Recommendations for Urinary Incontinence**

RECOMMENDATION	PROCESS INDICATORS	INDICATORS IN DATA REPOSITORIES/ INSTRUMENTS
<p><b>Good Practice Statement</b></p>	<p>Percentage of persons experiencing urinary incontinence who received a focused initial urinary incontinence assessment upon initiation of care</p> <p><i><b>Numerator:</b> Number of persons experiencing urinary incontinence who received a focused initial urinary incontinence assessment upon initiation of care</i></p> <p><i><b>Denominator:</b> Total number of persons experiencing urinary incontinence</i></p>	<p>New</p>
<p><b>Recommendation 1.1</b></p>	<p>Percentage of persons experiencing urinary incontinence with evidence that an individualized prompted voiding schedule was offered following a urinary incontinence assessment</p> <p><i><b>Numerator:</b> Number of persons experiencing urinary incontinence with evidence that an individualized prompted voiding schedule was offered following a urinary incontinence assessment</i></p> <p><i><b>Denominator:</b> Total number of persons experiencing urinary incontinence with a documented urinary incontinence assessment</i></p>	<p>Full Resident Assessment Instrument - Minimum Data Set (RAI-MDS)</p> <p>Partial Nursing Quality Indicators for Reporting® and Evaluation (NQUIRE®)</p>

RECOMMENDATION	PROCESS INDICATORS	INDICATORS IN DATA REPOSITORIES/ INSTRUMENTS
<p><b>Recommendation 1.1</b></p>	<p>Percentage of persons experiencing urinary incontinence with evidence that bladder training was offered following a urinary incontinence assessment</p> <p><i><b>Numerator:</b> Number of persons experiencing urinary incontinence with evidence that bladder training was offered following a urinary incontinence assessment</i></p> <p><i><b>Denominator:</b> Total number of persons experiencing urinary incontinence with a documented urinary incontinence assessment</i></p>	<p>New</p>
<p><b>Recommendation 2.1</b></p>	<p>Percentage of persons experiencing urinary incontinence who received education on engaging in low-intensity physical activity</p> <p><i><b>Numerator:</b> Number of persons experiencing urinary incontinence who received education on engaging in low-intensity physical activity</i></p> <p><i><b>Denominator:</b> Total number of persons experiencing urinary incontinence with a documented urinary incontinence assessment</i></p>	<p>New</p>

**Table 5: Process Indicators for Evaluating Recommendations for Fecal Incontinence and/or Constipation**

RECOMMENDATION	PROCESS INDICATORS	INDICATORS IN DATA REPOSITORIES/ INSTRUMENTS
<b>Good Practice Statement</b>	<p>Percentage of persons experiencing constipation and/or fecal incontinence who received a focused initial assessment upon initiation of care</p> <p><i><b>Numerator:</b> Number of persons experiencing constipation and/or fecal incontinence who received a focused initial assessment upon initiation of care</i></p> <p><i><b>Denominator:</b> Total number of persons experiencing constipation and/or fecal incontinence</i></p>	New
<b>Recommendation 4.1</b>	<p>Percentage of persons experiencing constipation who received education on engaging in low-intensity physical activity following a constipation assessment</p> <p><i><b>Numerator:</b> Number of persons experiencing constipation who received education on engaging in low-intensity physical activity following a constipation assessment</i></p> <p><i><b>Denominator:</b> Total number of persons experiencing constipation with a documented constipation assessment</i></p>	New

RECOMMENDATION	PROCESS INDICATORS	INDICATORS IN DATA REPOSITORIES/ INSTRUMENTS
<p><b>Recommendation 5.2</b></p>	<p>Percentage of persons experiencing constipation who received education on adequate fluid intake following a constipation assessment</p> <p><i><b>Numerator:</b> Number of persons experiencing constipation who received education on adequate fluid intake following a constipation assessment</i></p> <p><i><b>Denominator:</b> Total number of persons experiencing constipation with a documented constipation assessment</i></p>	<p>New</p>
<p><b>Recommendation 7.1</b></p>	<p>Percentage of persons experiencing constipation who received care according to an individualized bowel protocol following a constipation assessment</p> <p><i><b>Numerator:</b> Number of persons experiencing constipation who received care according to an individualized bowel protocol following a constipation assessment</i></p> <p><i><b>Denominator:</b> Total number of persons experiencing constipation with a documented constipation assessment</i></p>	<p>Partial NQuIRE®</p>

**Table 6: Outcome Indicators**

OUTCOME INDICATORS	INDICATORS IN DATA REPOSITORIES/ INSTRUMENTS
<p>Percentage of persons whose urinary incontinence worsened on their target assessment compared to their prior assessment</p> <p><b>Numerator:</b> <i>Number of persons experiencing urinary incontinence whose urinary incontinence worsened on their target assessment compared to their baseline assessment during the measurement period</i></p> <p><b>Denominator:</b> <i>Total number of persons experiencing urinary incontinence with a documented target and baseline assessment for urinary incontinence</i></p>	<p>Full RAI-MDS</p> <p>Full NQuIRE®</p> <p>Partial Health Quality Ontario (HQO) – Retired</p> <p>Full Canadian Institute for Health Information (CIHI)</p>
<p>Percentage of persons who did not have a bowel movement in the last three days</p> <p><b>Numerator:</b> <i>Number of persons who did not have a bowel movement in the last three days</i></p> <p><b>Denominator:</b> <i>Total number of persons</i></p>	<p>Partial RAI-MDS</p>
<p>Percentage of persons who received pharmacologic treatment(s) to manage constipation either during their admission/care or during the measurement period following a constipation assessment</p> <p><b>Numerator:</b> <i>Number of persons who received pharmacologic treatment(s) to manage constipation during their admission/ care or during the measurement period following a constipation assessment</i></p> <p><b>Denominator:</b> <i>Total number of persons experiencing constipation with a documented constipation assessment</i></p>	<p>Full NQuIRE®</p>

Other RNAO resources for the evaluation and monitoring of BPGs include the following:

- **Nursing Quality Indicators for Reporting and Evaluation<sup>®</sup> (NQuIRE<sup>®</sup>)**, a unique nursing data system housed in the International Affairs and Best Practice Guideline Centre, allows Best Practice Spotlight Organizations<sup>®</sup> (BPSOs<sup>®</sup>) to measure the impact of BPG implementation by BPSOs worldwide. The NQuIRE data system collects, compares and reports data on guideline-based, nursing-sensitive process and outcome indicators. NQuIRE indicator definitions are aligned with available administrative data and existing performance measures wherever possible, adhering to a “collect once, use many times” principle. By complementing other established and emerging performance measurement systems, NQuIRE strives to leverage reliable and valid measures, minimize reporting burden and align evaluation measures to enable comparative analyses. The international NQuIRE data system was launched in August 2012 to create and sustain evidence-based practice cultures, optimize patient safety, improve patient outcomes and engage staff in identifying relationships between practice and outcomes to advance quality and advocate for resources and policy that support best practice changes (19). Please visit [RNAO.ca/bpg/initiatives/nquire](http://RNAO.ca/bpg/initiatives/nquire) for more information.
- **BPG Order Sets<sup>™ G</sup>** embedded within electronic records provide a mechanism for electronic data capture of process measures. The ability to link structure and process measures with specific client outcome measures aids in determining the impact of BPG implementation on specific health outcomes. Please visit <http://RNAO.ca/ehealth/bpgordersets> for more information.

# Registered Nurses' Association of Ontario Best Practice Guideline Development and Research Team

## Nafsin Nizum, RN, MN

Guideline Development Lead

Senior Manager, Guideline Development & Research  
International Affairs and Best Practice  
Guidelines Centre  
Registered Nurses' Association of Ontario  
Toronto, ON

## Greeshma Jacob, RN, MScN

Guideline Development Methodologist

International Affairs and Best Practice  
Guidelines Centre  
Registered Nurses' Association of Ontario  
Toronto, ON

## Megan Bamford, RN, MScN

Former Associate Director, Guideline Development  
and Evaluation

International Affairs and Best Practice  
Guidelines Centre  
Registered Nurses' Association of Ontario  
Toronto, ON

## Verity Scott, BSc

Guideline Development Project Coordinator  
(September 2019–August 2020 )

International Affairs and Best Practice  
Guidelines Centre  
Registered Nurses' Association of Ontario  
Toronto, ON

## Glynis Gittens, BA (Hons)

Guideline Development Project Coordinator  
(September 2018–August 2019, September  
2020–December 2020)

International Affairs and Best Practice  
Guidelines Centre  
Registered Nurses' Association of Ontario  
Toronto, ON

## Christina Medeiros, RN, BScN, BPHE, BEd, MN, PhD Candidate

Senior Manager, Evaluation & Monitoring  
International Affairs and Best Practice  
Guidelines Centre  
Registered Nurses' Association of Ontario  
Toronto, ON

## Stephanie Voong, RN, MHI

Quality Improvement Specialist  
International Affairs and Best Practice  
Guidelines Centre  
Registered Nurses' Association of Ontario  
Toronto, ON

## Freda Poirier, RN, BScN, GNC(C)

Long-Term Care Best Practice Coordinator  
Long-Term Care Best Practices Program  
Registered Nurses' Association of Ontario  
Toronto, ON

## Saima Shaikh, RN

Long-Term Care Best Practice Coordinator  
Long-Term Care Best Practices Program  
Registered Nurses' Association of Ontario  
Toronto, ON

## Heather Woodbeck, RN, HBScN, MHSA

Long-Term Care Best Practice Coordinator  
Long-Term Care Best Practices Program  
Registered Nurses' Association of Ontario  
Toronto, ON

## Shanoja Naik, PhD, MPhil, MSc, BEd, BSc

Data Scientist/Statistician  
International Affairs and Best Practice  
Guidelines Centre  
Registered Nurses' Association of Ontario  
Toronto, ON

**Doris Grinspun, RN, MSN, PhD, LLD (hon), Dr (hc), FAAN, O. ONT**  
Chief Executive Officer  
Registered Nurses' Association of Ontario  
Toronto, ON

## Acknowledgements

External review provided by:

**Nancy Santesso, RD, MLIS, PhD**

Assistant Professor

Department of Health Research Methods, Evidence and Impact, McMaster University

Deputy Director, Cochrane Canada

Hamilton, ON

Systematic search completed by:

**UHN HealthSearch**



# RNAO Best Practice Guideline Expert Panel

**Kathleen Hunter, PhD, RN, NP, GNC(C), NCA**

Expert Panel Co-Chair

Professor

University of Alberta

Edmonton, AB

**Jennifer Skelly, RN, MHSc, MSc, PhD**

Expert Panel Co-Chair

Associate Professor, McMaster University

Director, Nurse Continence Advisor Program,

McMaster University School of Nursing

Hamilton, ON

**Katharine Burt, RN, BScN, MSc**

National Clinical Manager

Essity Canada

Minden, ON

**Jacqueline Cahill, BSc**

Executive Director

The Canadian Continence Foundation

Peterborough, ON

**Sinéad Dufour, PT, PhD**

Director of Pelvic Health, The World of

My Baby (WOMB)

Assistant Clinical Professor, McMaster University

Hamilton, ON

**Derick Fage**

Ambassador

The Canadian Continence Foundation

Ottawa, ON

**Niki Grady, BScN, NSWOC, MCISc-Wh, NCA**

Clinical Educator/NSWOC/Academic Advisor

Victorian Order of Nurses

Windsor, ON

**Linda Hewitt, PSW**

Personal Support Worker

F.J. Davey Home

Sault Ste. Marie, ON

**Kimberly LeBlanc, PhD, RN, NSWOC, WOCC(C), FCAN**

Chair, Wound Ostomy Continence Institute

Association of Nurses Specialized in

Wound Ostomy Continence

Advanced Practice & Certified Enterostomal Therapy

Nurse, KDS Professional Consulting

Ottawa, ON

**Andrea McWatters, RPN**

Clinical RPN

William A. George Extended Care

Sioux Lookout, ON

**Mary Nelson, BScPhm, RPh**

Clinical Pharmacist

Burlington Family Health Team

Burlington, ON

**Melissa Northwood, RN, PhD, GNC(C), NCA**

Assistant Professor, School of Nursing

McMaster University

Hamilton, ON

**Laura Robbs, RN, BScN, MN, NSWOC, WOCC(C), NCA**

Clinical Nurse Specialist

Urology Resource Center, Burlington Urology

Academic Advisor, WOC Academy

Etobicoke, ON

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RNAO wishes to acknowledge the following individuals for their contribution in reviewing this BPG.

### Maria Alejandro, RPN

Staff Nurse  
St. Joseph's Health Centre  
Toronto, ON

### Leyya Ali, RPh, CDE, BCGP

Pharmacist  
Metro Ontario Pharmacies  
Burlington, ON

### Denise Armstrong, PSW

Personal Support Worker  
Personal Attendant Care Inc.  
Durham, ON

### Laurel Augruso, RD

Clinical Registered Dietitian  
Pioneer Ridge Long-Term Care Home  
Thunder Bay, ON

### Donna Bliss, PhD, RN, FGSA, FAAN

Professor  
University of Minnesota School of Nursing  
Minneapolis, MN

### Ashley Brown, RPN

Behavioural Supports Ontario Chatham-Kent LTC  
Lead Team  
Leamington Mennonite Home  
Chatham, ON

### Jennifer Burke, RN, BA, BScN, MN

Clinical Nurse Educator Medicine Program  
Peterborough Regional Health Centre  
Peterborough, ON

### Will Byker, RN

Registered Nurse  
University Health Network, Toronto General Hospital  
Toronto, ON

### Jean Clark, RN, CIC

Manager Clinical Support  
Revera  
Ridgetown, ON

### Idevania Costa, RN, NSWOC, MN, PhD

Assistant Professor  
School of Nursing, Lakehead University  
Thunder Bay, ON

### Keri Coulson, RN, BN, WOCC(C)

Nurse Specialized in Wound, Ostomy & Continence  
Nova Scotia Health Authority  
Truro, NS

### Lindsay Couture, PSW

Owner, Oakwood Home Healthcare  
President's Council Member, OPSWA  
Ajax, ON

### Jennifer Cowan, RN(EC), MScN, PHC-NP, NSWOC (c)

Primary Health Care Nurse Practitioner  
Brockton Area and Kincardine Family Health Team  
Chesley/Paisley, ON

**Allison D’Hondt, RN, MSc, GNC(C), IIWCC**

Clinical Nurse Specialist  
Hamilton Health Sciences  
Hamilton, ON

**Lucy Doan, MN, PHC-NP**

Nurse Practitioner Fellow  
University Health Network  
Toronto, ON

**Xinman Dou, RN, MScN, PhD**

Director  
Lanzhou University Second Hospital  
Lanzhou, China

**Ericha Duke, RN**

Staff Nurse  
Bruyere Continuing Care  
Ottawa, ON

**Spencer Erb, RN**

St Joseph’s Healthcare Hamilton  
Hamilton, ON

**Erin Ferguson, RN, MScN, BScN, GNC(C),  
CHPCN(C)**

Registered Nurse  
Sudbury, ON

**Amy Firlotte, PSW**

Personal Care Attendant  
Ontario Shores Centre for Mental Health Sciences  
Oshawa, ON

**Catherine Galbraith, RN, BScN**

Registered Nurse  
Peterborough, ON

**Shirley Georgas**

Individual with lived experience  
Edmonton, AB

**Erin Gisborne, RN**

Clinical Nurse Educator  
Royal Victoria Regional Health Centre  
Barrie, ON

**Mary “Kristi” Gow, RN**

Clinical Resource Nurse  
Bay Haven Care Community  
Collingwood, ON

**Kathy Greig, RPN, GNC(C)**

Staff Nurse  
Scarborough Health Network  
Toronto, ON

**Aleksandra Grzeszczuk, RN, BScN, GNC(C)**

Director of Care  
Tullamore Care Community  
Brampton, ON

**Jennifer Harris**

Individual with lived experience  
Ottawa, ON

**Morgan Hoffarth, RN, MScN**

Coordinator  
St. Joseph’s Health Care London  
London, ON

**Patricia Howlett, RN**

Director of Clinical Support LTC  
Medline | Medical Mart  
Cambridge, ON

**Peggy Hughes, BScN, RN, MN**

Professional Practice Lead  
Southlake Regional Health Centre  
Newmarket, ON

**ShannonKift, RN, BScN**

Research Nurse  
Lakeridge Health  
Oshawa, ON

**Kanika Kohli, BScN, RN, MN**

Victorian Order of Nurses  
Stratford, ON

**Jennifer Kyere, MPT**

Physiotherapist/Assistant Clinical Services Manager for Seniors Health  
William Osler Health Services  
Brampton, ON

**Vickie Lacroix, BScN, RN, ICMC**

Nurse Educator  
Montfort Hospital  
Ottawa, ON

**Lisa Lallion, RN, MN, CMSN(C)**

Care Coordinator  
Central Local Health Integrated Network  
Toronto, ON

**Madeline Logan-John-Baptiste, BScN, MBA, CHE**

Manager of Patient Flow and Nursing Resource Team  
Mackenzie Health  
Richmond Hill, ON

**Vanessa Maradiaga Rivas, RN, BScN**

Registered Nurse  
Revera  
Hannon, ON

**Laura Martin Losada, RN, MScN, PhD (c)**

Clinical Nurse  
Hospital de Guadarrama  
Guadarrama, Madrid, Spain

**Yaisa McCarthy, MSN, BScN, RN**

Nurse Manager  
City of Toronto  
Toronto, ON

**Jessica Menard, RN**

Nurse Consultant, Supportive and Palliative Care  
The Ottawa Hospital  
Ottawa, ON

**Lauren Minielly, BScN**

Registered Nurse  
St. Joseph's Hospice  
Sarnia, ON

**Susan Ng, RN, MN, CHPCN(C)**

Clinical Nurse Consultant  
Hospice Palliative Care Teams  
Southlake Regional Health Centre  
Newmarket, ON

**Charity Okpara, RN, MScN**

Staff RN  
North York General Hospital  
Toronto, ON

**Jennifer Oteng, RN, BScN, MN, GNC(C), NCA**

Central Region Representative  
Canadian Nurse Continence Advisor Association  
Hamilton, ON

**Valentina Popov, RN**

Registered Visiting Nurse, Palliative Care  
Saint Elizabeth Health Care  
Toronto, ON

**Jenna Puk, RN, BScN, BSc (Hons)**

Registered Nurse  
Royal Victoria Regional Health Centre  
Barrie, ON

**Nitha Reno, RN, MScN, GNC(C), CHPCN(C)**

Clinical Practice Leader  
Ontario Shores Centre for Mental Health Sciences  
Whitby, ON

**Myat Sandar, RN, BScN**

Registered Nurse  
The Ottawa Hospital  
Ottawa, ON

**Rebecca Schmidtke, RN**

Registered Nurse  
Queensway Carleton Hospital  
Ottawa, ON

**Siyu (Susan) Shen, RPh**

Pharmacist  
Trillium Health Partners  
Burlington, ON

**Calvina Shum, RN, BScN**

Registered Nurse  
Michael Garron Hospital  
Toronto, ON

**Sara Stahl, BScN, RN, IHWCC**

Registered Nurse—Nursing Clinical Coordinator  
Prince Albert, SK

**Amy Stewart, RN, NSWOC**

Nurse Specialized in Wound, Ostomy & Continence  
SE Health  
Kingston, ON

**Susanne Swayze, RPN**

Staff Nurse  
St. Joseph's Healthcare Hamilton  
Hamilton, ON

**Carnelle Symes, MScN, BScN, BA, RN, CCNE**

Nursing Instructor  
Red Deer College  
Red Deer, ON

**Denise Taylor, PT, BScPT, MPH**

Physiotherapy Professional Practice Leader  
St. Joseph's Care Group  
Thunder Bay, ON

**Carolyn Thomas, RN**

Director of Nursing  
Wentworth Lodge  
Hamilton, ON

**Robert Vukovich, PharmD, RPh**

Clinical Consultant Pharmacist  
Centric Health Corporation  
Burlington, ON

**Michelle Young, RN, NSWOC (student)**

Registered Nurse  
Parkwood Institute  
London, ON

# Background Context

## Urinary Incontinence

Urinary incontinence is the involuntary leakage of urine (6). Urinary incontinence can be caused by physiological, mechanical and medical factors, including (but not limited to) weak pelvic muscles, diabetes, certain medications, constipation and bladder infection (8). Approximately 3.3 million Canadians are affected by urinary incontinence, and this number is expected to rise due to an increase in the proportion of the population aged 65 years and over (20). It is important to note that urinary incontinence is not a normal part of aging, but that physiological changes associated with the natural aging process may contribute to incontinence (20). For example, the decrease of estrogen in women as they age can lead to incontinence (20).

Urinary incontinence is more common in women, with incidence rates between 10 per cent and 58 per cent; this is compared to incidence rates among men between three per cent and 11 per cent (21). A common cause of urinary incontinence in women is thinning and drying of skin in the vagina or urethra, especially after menopause (8). Common causes of urinary incontinence in men include an enlarged prostate gland or prostate surgery, which makes the nerves and muscles of the bladder, urethra or sphincter vulnerable to damage (8, 22). According to the Canadian Institute for Health Information, 79 per cent of residents in Ontario long term care homes experience urinary incontinence (23).

The most common types of urinary incontinence (stress incontinence, urgency incontinence, mixed incontinence and functional incontinence) are described below. There are additional types of incontinence. Further, clinical indications that fall outside of the common types of incontinence warrant referral to a continence specialist for further assessment and management.

**Stress incontinence:** The involuntary loss of urine due to a sudden increase in intra-abdominal pressure via physical exertion, including coughing, sneezing, laughing, rising from a chair, lifting items or exercise (6, 8).

**Urgency incontinence:** The involuntary loss of urine that occurs when there is a sudden, compelling urge to urinate and the bladder contracts and empties in an involuntary fashion (6, 8).

**Mixed incontinence:** The involuntary loss of urine associated with urgency and physical exertion (e.g., coughing or sneezing) (6).

**Functional incontinence:** A type of urinary incontinence that occurs in instances where someone has normal urine control but may have trouble getting to the bathroom in time because they live with conditions that make it difficult for them to move around (such as decreased mobility). It may also be referred to as “disability incontinence” (6, 8).

Living with urinary incontinence can negatively impact various aspects of a person’s health-related quality of life. Physical implications of living with urinary incontinence may include being predisposed to skin damage (such as incontinence-associated dermatitis caused by moisture) and falls resulting from urgency to reach the toilet (21, 24). Living with urinary incontinence also may negatively impact a person’s psychological health and social functioning. Feelings of sadness, anger, embarrassment or depression related to being incontinent may reduce one’s self-confidence and lead to avoidance of social gatherings and interactions (21). Furthermore, concerns related to urinary incontinence can have a negative impact on sexual function and intimacy (25).

## Fecal Incontinence

Fecal incontinence is the involuntary loss of feces (26). Fecal incontinence can be caused by multiple medical conditions including (but not limited to) constipation, muscle injury or weakness, nerve damage, neurologic diseases, loss of stretch in the rectum, hemorrhoids or rectal prolapse (7). An estimated one per cent of people under the age of 65—and four to seven per cent of people over the age of 65—live with fecal incontinence (27). In Canada, studies have shown that the prevalence of fecal incontinence ranges from two per cent within community settings to eight per cent among post-partum women (28, 29). According to the Canadian Institute for Health Information, 60 percent of residents in Ontario long term care homes experience fecal incontinence (23).

There are different subtypes of fecal incontinence.

**Passive fecal incontinence:** The “involuntary leakage of feces without forewarning. A small amount of soiling and seepage between the buttocks or on a small pad or underwear are symptoms of minor passive fecal incontinence. Passive fecal incontinence is frequently related to internal anal sphincter dysfunction, while urge fecal incontinence is often associated with external anal sphincter dysfunction” (26).

**Urge fecal incontinence:** The “inability to defer defecation once the urge is perceived for long enough to reach a toilet. However, as distances to a toilet will vary, this is an inconsistent and uncontrolled condition” (26).

**Functional fecal incontinence:** The involuntary leakage of feces “due to limitations in mobility, manipulating clothing, or toileting ability or delayed assistance with toileting” (26).

Living with fecal incontinence may cause emotional and social distress, such as fear, embarrassment, social isolation, anger or depression, and loss of self-esteem (7). Quality of life may be impaired due to disruptions in daily activities, such as not being able to exercise, work, or attend school or social gatherings (7).

## Constipation

Constipation is characterized by the difficult or infrequent passage of stools (less than three bowel movements per week) (4). The prevalence of constipation varies, ranging from two per cent to 35 per cent in persons (4); it can be as high as 74 per cent among elderly individuals who live in the long-term care settings (30). Women are two to three times more likely to suffer from constipation than men (31).

Constipation may be acute or chronic (lasting more than three months), and it may develop as a result of medication side effects and/or neurological or systematic illnesses (5). However, the most common type of constipation is functional constipation, for which there is no underlying cause (5). Prevention and management are both crucial, as constipation can impact overall health and well-being, causing pain, social isolation and anxiety (32).

## Financial Impact of Urinary and Fecal Incontinence

Aside from their physical, psychological and social impacts, urinary and fecal incontinence cost Canadians over \$8.5 billion annually (33). An individual living with incontinence spends, on average, C\$1,400–C\$2,100 per year on incontinence supplies (33). Furthermore, Canadian employers experience over 11.5 person-days of lost work and over C\$2 billion in lost productivity due to urinary and fecal incontinence among workers (33). Urinary incontinence is also one of the key predictors of older adults transitioning from independent community living to a long term care home (33). Incontinence increases the risk of hospitalization by 30%, further adding costs to the health care system (33).

## Alleviating the Stigma Associated with Urinary and Fecal Incontinence

Urinary and fecal incontinence are taboo, and there often is an enormous amount of stigma associated with the conditions (34, 35). This fear and shame results in many people suffering in silence and not seeking care (33, 34). Only one quarter of men and women living with incontinence seek help from a health provider; they often are embarrassed to consult a health provider or they assume it is a normal part of the aging process (33). One study found that more than half of residents living with fecal incontinence in long-term care homes did not seek help because they felt ashamed or had low expectations of what could be done (34). In fact, those who did seek care waited six months to do so (34).

It is important to address incontinence and to eventually eliminate the shame and stigma associated with it so that persons can receive timely diagnosis and treatment. In particular, knowledge and awareness of urinary and fecal incontinence among health providers can break down barriers to persons seeking and receiving care.

## Promoting Quality Care for Urinary Incontinence, Fecal Incontinence and Constipation

Urinary incontinence, fecal incontinence and constipation are intertwined, as they can impact one another. Constipation is a predisposing risk factor for both urinary and fecal incontinence (7, 8). Furthermore, urinary incontinence and fecal incontinence can present together: known as “double incontinence,” this is associated with a greater negative effect on health-related quality of life (36). Double incontinence ranges from 1.7 per cent to 24 per cent among community-dwelling women, and it may reach 69.2 per cent among long-term care home residents (36). Likewise, fecal incontinence and constipation can also co-occur: persons living with constipation are more likely to develop fecal incontinence (37). As a result, the timely prevention and management of the conditions are imperative to avoid cascading impacts on health.

A comprehensive approach is required in order to promote **continence**<sup>G</sup> and quality care for persons living with urinary incontinence, fecal incontinence and/or constipation. Greater awareness and knowledge among health providers are needed to alleviate the stigma associated with urinary and fecal incontinence, further reducing its impact on the psychological health and social functioning of persons living with these conditions. At the organizational level, appropriate policies, resources and education to support the knowledge and skills of health providers are essential to assessing and managing urinary incontinence, fecal incontinence and constipation. Finally, practice changes that are evidence-based, patient-centered and aimed at reducing the use of incontinence products are vital to facilitating optimal well-being.

## Conclusion

This BPG provides evidence-based best practice recommendations and resources that will help health-service organizations and the interprofessional team support persons 18 years and older who are living with urinary incontinence, fecal incontinence and/or constipation across various health-care settings (e.g., acute care, long-term care, community and primary care, and rehabilitation). Overall, this BPG aims to improve quality of care, alleviate stigma and proactively promote positive health outcomes for persons living with urinary incontinence, fecal incontinence and/or constipation.

# Recommendations for Urinary Incontinence

## GOOD PRACTICE STATEMENT:

The expert panel recommends that, prior to developing a plan of care or carrying out interventions, health providers conduct a focused initial continence assessment in collaboration with the person experiencing urinary incontinence.

This is a good practice statement that does not require application of the GRADE system (12). Conducting an initial assessment before developing a plan of care or implementing any intervention is a standard of professional practice (38). As such, conducting a focused initial assessment of persons living with urinary incontinence is good clinical practice and a prerequisite for developing a plan of care and providing nursing and other interventions. This good practice statement is applicable to all practice settings where persons living with urinary incontinence are accessing services, such as acute care, long-term care, primary and community care, or rehabilitation.

Routine and direct enquiry about urinary incontinence by health providers can support proper detection of urinary incontinence. Identifying the type of incontinence experienced by the person (i.e., stress incontinence, urgency incontinence, mixed incontinence or functional incontinence) and the possible underlying causes or contributing factors of the incontinence can guide the plan of care and support the identification of appropriate interventions (39). In addition, the initial assessment can identify findings that require reporting to the appropriate member of the interprofessional care team and/or a continence specialist for further evaluation.

An initial assessment of urinary incontinence can be guided by the following components, as adapted from the International Continence Society (ICS) and informed by the expert panel (39):

1. Obtain a clinical history to accurately determine the type of urinary incontinence and the possible underlying causes.
2. Obtain a voiding record to evaluate the frequency of incontinence and voided volume.
3. Assess urinary urgency using validated questionnaires.
4. Use dipstick urinalysis as a screening tool to further assess **glycosuria<sup>G</sup>**, **hematuria<sup>G</sup>**, **proteinuria<sup>G</sup>** and **pyuria<sup>G</sup>**, in accordance with the policies and procedures of the local setting.
5. Measure post-void residual (PVR) volume within a few minutes of voiding, either by calculating bladder volume using a portable ultrasound scanner or by in and out catheterization (unless otherwise directed).

See **Table 7** under “Practice Notes” (below) for further details from the expert panel on each of these components.



**Caution:** A dipstick urinalysis should not be used to diagnose a urinary tract infection (UTI).

The expert panel statement above is consistent with the following recommendation from Choosing Wisely Canada: “don’t do a urine dip or send urine specimens for culture unless urinary tract symptoms are present” (1). The recommendation indicates that urine dip testing should only be done when UTI symptoms—such as urinary discomfort, frequency, urgency, supra-pubic pain, flank pain or fever—are present. Testing often shows bacteria in the urine without localizing symptoms to the genitourinary tract. As such, over-testing and treating asymptomatic bacteriuria with antibiotics can lead to an increased risk of diarrhea and infection with *Clostridium difficile*. Overuse of antibiotics contributes to increasing antimicrobial resistance.

Refer to <https://choosingwiselycanada.org/nursing/> to view Choosing Wisely Canada’s recommendation and the associated evidence.



**Table 7: Practice Notes from the Expert Panel**

COMPONENTS OF ASSESSMENT	DETAILS OF ASSESSMENT
<p><b>Obtain a history of urinary incontinence</b></p>	<ul style="list-style-type: none"> <li>■ Obtaining a general health history can include the following:                             <ul style="list-style-type: none"> <li>□ Identifying factors, including co-morbid conditions, to determine the possible underlying causes of urinary incontinence.</li> <li>□ For a list of factors (including co-morbid conditions) that can cause or contribute to urinary incontinence, please see <b>Appendix I</b>.</li> <li>□ Conducting a medication review of prescription and over-the-counter (OTC) medications and supplements to evaluate if they contribute to urinary incontinence. Perform the medication review in conjunction with the prescriber and/or pharmacist. For a list of medications that can cause or contribute to urinary incontinence, please see <b>Appendix J</b>.</li> <li>□ Assessing the functional and cognitive status of persons experiencing urinary incontinence.</li> </ul> </li> <li>■ Obtaining a clinical history can include the following:                             <ul style="list-style-type: none"> <li>□ Type and amount of daily fluid intake, including caffeine and alcohol.</li> <li>□ Type, onset and duration of symptoms.</li> <li>□ Daily use of incontinence products (i.e., adult briefs).</li> <li>□ A perineal skin assessment to determine the impact of urinary incontinence on the physical aspects of quality of life.</li> <li>□ Degree of bother caused by urinary incontinence and the impact on the social, psychological and sexual aspects of quality of life.</li> <li>□ Identification of barriers to successful toileting.</li> <li>□ Assessment for any red and/or yellow flags associated with urinary incontinence.                                     <ul style="list-style-type: none"> <li>● “Red flags” are high-alert clinical indicators that require reporting to the appropriate member of the interprofessional team and/or a continence specialist. Examples of red flags include (but are not limited to):   <ul style="list-style-type: none"> <li>○ pain with urination;</li> <li>○ blood in urine; or</li> <li>○ person describing feelings of pressure in the vagina.</li> </ul> </li> <li>● “Yellow flags” are concerning clinical indicators that require ongoing assessment (i.e., monitoring) and reporting to the appropriate member of the interprofessional team and/or a continence specialist. Examples of yellow flags include (but are not limited to) urinary incontinence potentially caused by delirium, infection, medications, reduced mobility or stool impaction.</li> </ul> </li> </ul> </li> </ul> <p><b>Note:</b> Health providers may ask a person’s support network to collect assessment data if a person is unable to provide such details.</p>

RECOMMENDATIONS

COMPONENTS OF ASSESSMENT	DETAILS OF ASSESSMENT
<b>Obtain a voiding record</b>	<ul style="list-style-type: none"> <li>■ A three-day voiding record could be used to collect accurate details on:               <ul style="list-style-type: none"> <li>□ frequency, amount and severity of incontinence; and</li> <li>□ use of incontinence products.</li> </ul> </li> <li>■ Record all voiding events for three consecutive days beginning when the person starts the day on day one and ending when the person starts the day on day four.</li> <li>■ Prior to initiating toileting strategies, identify the person’s pattern of incontinence using a three-day voiding record.</li> <li>■ For a sample voiding record, please see <b>Appendix K</b>.</li> </ul>
<b>Assess urinary urgency</b>	<ul style="list-style-type: none"> <li>■ For a list of validated questionnaires and scales to assess urinary urgency, please see <b>Appendix L</b>.</li> <li>■ For those persons who are able, an option is to have them complete a validated questionnaire on symptoms and effects of incontinence on quality of life.</li> </ul>
<b>Use a dipstick urinalysis as a screening tool</b>	<ul style="list-style-type: none"> <li>■ A dipstick urinalysis should not be used to diagnose a UTI; however, it can be a tool to determine if further assessment is needed, especially if a new onset of urinary incontinence is suspected.</li> <li>■ A dipstick urinalysis should only be used in accordance with the policies and procedures of the local setting.</li> </ul>
<b>Measure PVR volume</b>	<ul style="list-style-type: none"> <li>■ Measurement of PVR is indicated to know how well the bladder is emptying (e.g., a PVR of less than 50–100 ml is normal with a voided volume of 100 ml or more).</li> <li>■ Direct care providers report a measure of voided volume prior to the measurement of PVR volume.</li> <li>■ Measurement of PVR volume should be based on an order from a physician or nurse practitioner.</li> </ul>

COMPONENTS OF ASSESSMENT	DETAILS OF ASSESSMENT
<p><b>Report findings</b></p>	<ul style="list-style-type: none"> <li>■ A <b>comprehensive assessment</b><sup>6</sup> of urinary incontinence is to be conducted by a continence specialist.</li> <li>■ Based on the individual needs of the person, findings can be reported to:                     <ul style="list-style-type: none"> <li>□ A member of the interprofessional team who may place a referral to a continence specialist following the initial assessment (as necessary). Examples include:                             <ul style="list-style-type: none"> <li>● general practitioners;</li> <li>● nurse practitioners; and</li> <li>● dietitians.</li> </ul> </li> <li>□ Continence specialists, including:                             <ul style="list-style-type: none"> <li>● gynecologists/urogynecologists;</li> <li>● urologists;</li> <li>● nurse continence advisors (NCA);</li> <li>● nurses specialized in wound, ostomy and continence (NSWOC); and</li> <li>● pelvic health physiotherapists.</li> </ul> </li> </ul> </li> <li>■ The reporting process also may be individualized based on the needs and wishes of persons and their support networks.</li> </ul>

## Supporting Resources

RESOURCE	DESCRIPTION
<p>Identifying continence issues. In: Victoria State Government [Internet]. Victoria (AU): Victoria State Government; c2017-2020. Available from: <a href="https://www2.health.vic.gov.au/hospitals-and-health-services/patient-care/older-people/continence/continence-identifying">https://www2.health.vic.gov.au/hospitals-and-health-services/patient-care/older-people/continence/continence-identifying</a></p>	<ul style="list-style-type: none"> <li>Website that outlines information on identifying continence issues in older adults.</li> <li>It includes initial admission screening questions, assessment of contributing factors, details on taking history and more.</li> </ul>
<p>LeBlanc K, Christensen D, Robbs L, Johnston V, Cleland B, Flett N. Best practice recommendations for the prevention and management of incontinence-associated dermatitis. <i>Wound Care Can.</i> 2010; 8(3): 6-23.</p> <p>The journal article is available from: <a href="https://www.woundscanada.ca/docman/public/wound-care-canada-magazine/2010-vol-8-no-3/376-wcc-2010-v8n3-best-practice-english/file">https://www.woundscanada.ca/docman/public/wound-care-canada-magazine/2010-vol-8-no-3/376-wcc-2010-v8n3-best-practice-english/file</a></p>	<ul style="list-style-type: none"> <li>An open access journal article which includes a validated four-item perineal assessment tool that assesses risks contributing to incontinence associated dermatitis (please see Table 2).</li> </ul>
<p>Locate a Professional. In: The Canadian Continence Foundation [Internet]. Peterborough (ON): The Canadian Continence Foundation; c2020. Available from: <a href="https://www.canadiancontinence.ca/EN/locate-a-professional.php">https://www.canadiancontinence.ca/EN/locate-a-professional.php</a></p>	<ul style="list-style-type: none"> <li>Website that outlines various types of continence specialists (and their respective roles) to care for persons living with urinary incontinence.</li> <li>Allows persons in Canada to locate the appropriate professional within their city.</li> </ul>
<p>Registered Nurses' Association of Ontario (RNAO). Delirium, dementia, and depression in older adults: assessment and care [Internet]. Toronto (ON): RNAO; 2016. Available from: <a href="https://rnao.ca/sites/rnao-ca/files/DDD_BPG.pdf">https://rnao.ca/sites/rnao-ca/files/DDD_BPG.pdf</a></p>	<ul style="list-style-type: none"> <li>The BPG includes various resources on completing a cognitive assessment for older adults.</li> <li>See Appendix H on screening and assessment tools for persons with delirium and dementia.</li> </ul>
<p>Senior friendly care learning series. In: Regional Geriatric Program of Toronto [Internet]. Toronto (ON): Regional Geriatric Program of Toronto; c2020. Available from <a href="https://www.rgptoronto.ca/resources/senior-friendly-care-learning-series/?search=Urinary%20incontinence">https://www.rgptoronto.ca/resources/senior-friendly-care-learning-series/?search=Urinary%20incontinence</a></p>	<ul style="list-style-type: none"> <li>Includes resources for clinicians on bladder physiology, medications that contribute to urinary incontinence, patient and caregiver handout, and more.</li> </ul>

## RECOMMENDATION QUESTION #1:

Should toileting strategies be recommended to improve outcomes in persons living with urinary incontinence?

Outcomes: Episodes of incontinence, quality of life and use of incontinence products.

### RECOMMENDATION 1.1:

The expert panel recommends that health providers offer individualized toileting strategies in persons living with urinary incontinence.

**Strength of the recommendation:** Strong

**Certainty of the evidence of effects:** Low

**Confidence in evidence:** Not applicable

## Discussion of Evidence:

### Benefits and Harms

For the purposes of this recommendation, a toileting strategy refers to a type of behavioural therapy and support aimed at improving bladder control. Across studies, toileting strategies included **prompted voiding**<sup>G</sup> (40) and **bladder training**<sup>G</sup> (41, 42). Prompted voiding refers to using verbal and physical cues to prompt persons to attend to their wet/dry status and then encouraging them to use the toilet through positive reinforcement (40). One study implemented prompted voiding among older persons, including persons living with cognitive impairments, in long-term care settings (40). Bladder training involves lifestyle modifications (e.g., eliminating bladder irritants from diet, managing fluid intake, weight control, bowel regulation and smoking cessation) and the use of relaxation and distraction techniques for the control of urinary frequency and urgency (42). The two studies that promoted bladder training included persons living with urinary incontinence in the community (41, 42).

Research suggests that toileting strategies such as prompted voiding and bladder training may reduce episodes of incontinence and the use of incontinence products; they also may improve quality of life in persons living with urinary incontinence (40-42). There were no harms reported in the literature related to toileting strategies. The evidence was of low certainty due to limitations in how studies were conducted, the use of different tools to measure outcomes across studies and the small number of study participants.

For more detailed information on the impact of the intervention (toileting strategies) on the prioritized outcomes (episodes of incontinence, quality of life and use of incontinence products), please refer to the evidence profiles available at: <https://rnao.ca/bpg/guidelines/proactive-approach-bladder-and-bowel-management-adults>.

Specific components of the intervention noted in the literature are outlined under “Practice Notes.”

## Values and Preferences

There was no evidence identified in the systematic review that reported on the values and preferences of persons living with urinary incontinence in relation to toileting strategies.

## Health Equity

Successful implementation of individualized toileting strategies across settings may be limited due to inadequate staffing and workload issues, which can be more prominent in certain sectors. The expert panel emphasized the importance of breaking down these barriers in order to implement the recommended practice, thus improving outcomes in persons living with urinary incontinence.

## Expert Panel Justification of Recommendation

There may be benefits in encouraging toileting strategies in persons living with urinary incontinence. No harms were found. However, this evidence was of low certainty. The expert panel emphasized that encouraging toileting strategies may reduce episodes of incontinence and the use of incontinence products, and that it may improve quality of life, all of which are outcomes that persons living with incontinence would highly value. Therefore, despite the low certainty of evidence, the expert panel determined the strength of the recommendation to be strong.

## Practice Notes

### From the Expert Panel

- All toileting strategies may not be appropriate (or realistic) for all persons living with urinary incontinence. Health providers should carefully assess a person's age, physical limitations and cognitive status (e.g., dementia or other behavioural issues) and encourage strategies that are individualized to them. See the **Good Practice Statement** on the assessment of urinary incontinence (on p. 36).
- Based on the person's age, physical limitations and cognitive status, encourage an individualized toileting strategy as an initial approach before resorting to the use of incontinence products.

The above expert panel statement is consistent with the following recommendation from Choosing Wisely Canada: “don't routinely use incontinence containment products (including briefs or pads) for older adults” (1). The recommendation and the associated evidence indicate that the routine use of incontinence containment products are associated with adverse outcomes, including diminished self-esteem and perceived quality of life and higher incidence rates of dermatitis, pressure wounds and UTIs. Among older persons, a thorough assessment should be conducted to determine the risk of such outcomes before initiating or continuing the use of such products.

Refer to <https://choosingwiselycanada.org/nursing/> to view Choosing Wisely Canada's recommendation and the associated evidence.

**Table 8: Practice Notes from the Evidence**

KEY INTERVENTION	DETAILS FROM THE EVIDENCE
<p><b>Toileting strategies for persons living with urinary incontinence</b></p>	<p><b>Prompted voiding</b></p> <p><b>Lai and Wan, 2017</b></p> <ul style="list-style-type: none"> <li>■ Implemented for nursing home residents aged 65 and over, including persons with cognitive impairment.</li> <li>■ Intervention period of six months.</li> <li>■ Residents prompted to void every 2 to 2.5 hours, from 7:00 AM to 7:00 PM, seven days a week (40).</li> <li>■ See <b>Appendix M</b> for an example of a prompted voiding protocol.</li> </ul>
	<p><b>Bladder training</b></p> <p><b>Rizvi et al., 2018</b></p> <ul style="list-style-type: none"> <li>■ All participants were women between the ages of 22 and 65 living in the community.</li> <li>■ Training included urge suppression techniques, self-monitoring (voiding dairies), lifestyle modifications (i.e., eliminating bladder irritants from diet, managing fluid intake, weight control, bowel regulation and smoking cessation) and timed voiding (42).</li> </ul> <p><b>Lee et al., 2013</b></p> <ul style="list-style-type: none"> <li>■ Participants were persons (both men and women) aged 40 years of age and older, living in the community and experiencing idiopathic overactive bladder.</li> <li>■ A 30-minute bladder training program that consisted of:                             <ul style="list-style-type: none"> <li>□ Education on normal daytime frequency and amount.</li> <li>□ Videos on the normal physiology of urination.</li> <li>□ Education on holding urine until a certain goal is met.</li> <li>□ Education on how to train the bladder, including:                                     <ul style="list-style-type: none"> <li>● refraining from going to the bathroom after feeling an urge to void;</li> <li>● ceasing action and thought temporarily in order to stop thinking about voiding; and</li> <li>● performing pelvic floor exercises five to six times a day.</li> </ul> </li> <li>□ Feedback and problem shooting with a specialized nurse practitioner (41).</li> </ul> </li> </ul>

RECOMMENDATIONS

## Supporting Resources

RESOURCE	DESCRIPTION
<p>Continence and using the toilet. In: Dementia Support Australia [Internet]. [place unknown]: Dementia Support Australia; c2020. Available from: <a href="https://dementia.com.au/resources/library/care-support-guides/continence-and-using-the-toilet.html">https://dementia.com.au/resources/library/care-support-guides/continence-and-using-the-toilet.html</a></p>	<ul style="list-style-type: none"> <li>■ Includes information on challenges faced by people with dementia with using the toilet and suggests ideas to offer support.</li> </ul>
<p>Cottenden A, Fader M, Beeckman D, Buckley B, Kitson-Reynolds E, Moore K, et al. Management using continence products. In: Abrams P, Cardozo L, Wagg A, Wein A, editors. Incontinence 6th edition. Bristol, UK: International Continence Society; 2017. Available from: <a href="https://www.ics.org/education/icspublications/icibooks/6thicibook">https://www.ics.org/education/icspublications/icibooks/6thicibook</a></p>	<ul style="list-style-type: none"> <li>■ Includes detailed information on absorbent products for men and women.</li> <li>■ Provides details regarding absorbent product categories, absorbent product materials and more.</li> </ul>
<p>Improving continence care for people with dementia living at home [Internet]. Luxembourg: Alzheimer Europe; 2014. Available from: <a href="https://www.alzheimer-europe.org/Publications/Alzheimer-Europe-Reports">https://www.alzheimer-europe.org/Publications/Alzheimer-Europe-Reports</a> (halfway down the page)</p>	<ul style="list-style-type: none"> <li>■ A report that explores the needs of people with dementia who are living at home and facing incontinence.</li> <li>■ A resource meant for people with dementia, carers, health providers, service providers and policy-makers.</li> <li>■ Includes considerations for the use of prompted voiding in persons living with dementia.</li> </ul>
<p>Treating Incontinence. In: Canadian Continence Foundation [Internet]. Peterborough (ON): Canadian Continence Foundation; c2020. Available from: <a href="https://www.canadiancontinence.ca/EN/treatment.php">https://www.canadiancontinence.ca/EN/treatment.php</a></p>	<ul style="list-style-type: none"> <li>■ Website that provides an overview of treatment, remedies or management options for urinary incontinence, including bladder retraining.</li> <li>■ It has many downloadable fact sheets.</li> </ul>
<p>Toileting and incontinence. In: Alzheimer Society Canada [Internet]. 2019 Nov 11. Toronto (ON): Alzheimer Society of Canada; c2020. Available from: <a href="https://alzheimer.ca/en/Home/Living-with-dementia/Day-to-day-living/Personal-care/Toileting-and-incontinence">https://alzheimer.ca/en/Home/Living-with-dementia/Day-to-day-living/Personal-care/Toileting-and-incontinence</a></p>	<ul style="list-style-type: none"> <li>■ Includes toileting strategies and tips to reduce incontinence for persons living with dementia.</li> </ul>

## RECOMMENDATION QUESTION # 2:

**Should physical activity be recommended to improve outcomes in persons living with urinary incontinence?**

**Outcomes: Episodes of incontinence and physical limitations.**

### RECOMMENDATION 2.1:

The expert panel recommends that health providers encourage persons who live with urinary incontinence to engage in low-intensity physical activity, as tolerated.

**Strength of the recommendation:** Strong

**Certainty of the evidence of effects:** Low

**Confidence in evidence:** Not Applicable

### Discussion of Evidence:

#### Benefits and Harms

For the purposes of this recommendation, low-intensity physical activity refers to light, non-strenuous and repetitive bodily movement, such as walking, low-impact aerobic exercise and light resistance training. Low-intensity physical activity in the studies included yoga therapy for six weeks (43) and stretching, followed by stationary cycling, treadmill exercises and resistance training for 52 weeks (44).

Research suggests that low-intensity physical activity may decrease episodes of incontinence and physical limitations in particularly women (e.g., improve the degree of physical or functional activities such as walking and climbing) (43, 44). The literature did not address low-intensity physical activity in men. However, the expert panel agreed that physiologically, men may also experience a decrease in episodes of incontinence and physical limitations. There were no harms related to low-intensity physical activity reported in the literature. The evidence was of low certainty due to limitations in how studies were conducted and the small number of study participants.

For more detailed information on the impact of the intervention (low-intensity physical activity) on the prioritized outcomes (episodes of incontinence and physical limitations), please refer to the evidence profiles available at: <https://rnao.ca/bpg/guidelines/proactive-approach-bladder-and-bowel-management-adults>.

This recommendation question was posed to exclude interventions related to pelvic floor muscle exercises. Please refer to **Adopted Recommendation** (pg. 49) for guidance on pelvic floor muscle exercises.

#### Values and Preferences

There was no evidence identified in the systematic review that reported on the values and preferences of women living with urinary incontinence in relation to low-intensity physical activity.

## Healthy Equity

No evidence was identified in the systematic review that directly assessed the impact of physical activity on health equity. More research is required on this topic.

## Expert Panel Justification of Recommendation

There may be benefits of low-intensity physical activity. No harms were found in women. However, the certainty in this evidence was low. The expert panel determined that persons would value improvements in outcomes (episodes of incontinence and physical limitations), and that integrating low-intensity physical activity into one's life offers improvements in various facets of health. Therefore, the expert panel determined the strength of the recommendation to be strong.

## Practice Notes

### From the Expert Panel

- Low-intensity physical activity should be individualized and appropriate to the person's age, physical ability and associated health status. See the **Good Practice Statement** on assessment of urinary incontinence on p. 36.

## Supporting Resources

RESOURCE	DESCRIPTION
Diabetes Canada. Benefits of physical activity [Internet]. Toronto (ON): Diabetes Canada; c2020. Available from: <a href="https://www.diabetes.ca/diabetescanadawebsite/media/managing-my-diabetes/tools%20and%20resources/benefits-of-physical-activity.pdf?ext=.pdf">https://www.diabetes.ca/diabetescanadawebsite/media/managing-my-diabetes/tools%20and%20resources/benefits-of-physical-activity.pdf?ext=.pdf</a>	<ul style="list-style-type: none"> <li>■ Online resource regarding physical activity for persons with diabetes.</li> <li>■ Includes information related to benefits of physical activity, identifying barriers to physical activity and tips to overcoming barriers.</li> </ul>
Diabetes Canada. Introductory resistance program [Internet]. Toronto (ON): Diabetes Canada; c2020. Available from: <a href="https://www.diabetes.ca/diabetescanadawebsite/media/managing-my-diabetes/tools%20and%20resources/introductory-resistance-program.pdf?ext=.pdf">https://www.diabetes.ca/diabetescanadawebsite/media/managing-my-diabetes/tools%20and%20resources/introductory-resistance-program.pdf?ext=.pdf</a>	<ul style="list-style-type: none"> <li>■ Online resource on guidelines for introductory resistance training for persons with diabetes.</li> <li>■ Includes information related to benefits of resistance training, safety considerations and tips on how to perform the training.</li> </ul>
Diabetes Canada. Maintaining aerobic exercise [Internet]. Toronto (ON): Diabetes Canada; c2020. Available from: <a href="https://www.diabetes.ca/diabetescanadawebsite/media/managing-my-diabetes/tools%20and%20resources/maintaining-aerobic-exercise.pdf?ext=.pdf">https://www.diabetes.ca/diabetescanadawebsite/media/managing-my-diabetes/tools%20and%20resources/maintaining-aerobic-exercise.pdf?ext=.pdf</a>	<ul style="list-style-type: none"> <li>■ Online resource regarding the maintenance of aerobic exercises for persons with diabetes.</li> <li>■ Includes information related to benefits of physical activity and understanding the intensity of aerobic activity.</li> </ul>
Walking. In: NHS Health Scotland [Internet]. [place unknown]: NHS Health Scotland; c2020. Available from <a href="https://www.nhsinform.scot/healthy-living/keeping-active/activities/walking">https://www.nhsinform.scot/healthy-living/keeping-active/activities/walking</a>	<ul style="list-style-type: none"> <li>■ Includes information related to physical and mental health benefits of walking.</li> </ul>
Older adults: Sit up, get dressed, keep moving. In: NHS University Hospitals of North Midlands [Internet]. [place unknown]: UHNM NHS Trust; c2020. Available from: <a href="https://www.uhnm.nhs.uk/our-services/older-adults/">https://www.uhnm.nhs.uk/our-services/older-adults/</a>	<ul style="list-style-type: none"> <li>■ Includes information on how activity can prevent deconditioning syndrome, which can contribute to constipation and incontinence.</li> <li>■ Includes booklets with clear instructions on how to perform bed and chair exercises, that can be downloaded.</li> </ul>

**ADOPTED RECOMMENDATION QUESTION:**

**Should pelvic floor muscle training (PFMT) be recommended in women living with urinary incontinence?**

**Outcomes: Improvement in symptoms, patient satisfaction, health-related quality of life, sexual function, adverse events, anatomical assessment of pelvic organ prolapse.**

**ADOPTED RECOMMENDATION:**

The expert panel recommends that health providers offer women who live with stress or mixed urinary incontinence a trial of supervised PFMT for at least three months as first-line management. A comprehensive assessment should be conducted to determine the applicability of PFMT for these women.

**Strength of the recommendation:** Strong

**Certainty of the evidence of effects:** Very Low to Low

**Confidence in evidence:** Not applicable

**Discussion of Evidence:****Benefits and Harms**

PFMT is an exercise program aimed at improving specific deficiencies in pelvic floor muscle structure or function (45). It is based on an assessment of a woman's ability to contract the pelvic floor muscle (45). The expert panel acknowledged that there is current guidance and substantial evidence supporting the use of PFMT among women who live with urinary incontinence. As a result, a trustworthy recommendation from a high-quality existing guideline has been adopted by the expert panel (13). The guideline, *Urinary Incontinence and Pelvic Organ Prolapse in Women: Management* by NICE, was recently updated in June 2019 and addresses PFMT for women living with urinary incontinence (14).

Evidence from the systematic review conducted by NICE for the 2019 guideline favored PFMT when it was compared to other **conservative management**<sup>G</sup> options (e.g., lifestyle advice and the use of a vaginal pessary) or no conservative treatment (14). Evidence demonstrates that PFMT may improve **pelvic organ prolapse**<sup>G</sup> symptoms, patient satisfaction, health-related quality of life, sexual function and improvement of stages 1-2 prolapse (14). One study reported abnormal vaginal bleeding and discharge at 12 months when PFMT with a vaginal pessary was compared to PFMT alone, but the difference was not clinically important (14). The evidence was of low to very low certainty due to limitations in how the studies were conducted and the large uncertainties around the effect sizes (14).



**Caution:** PFMT may not be appropriate for frail older women or those living with cognitive impairments. Furthermore, PFMT should be facilitated and supervised by a health provider with the appropriate knowledge and skills, such as an NCA or a pelvic health physiotherapist.

For more detailed information on the impact of the intervention (PFMT) on the prioritized outcomes (improvement in symptoms, patient satisfaction, health-related quality of life, sexual function, adverse events and anatomical assessment of pelvic organ prolapse), please refer to the evidence profiles available at: <https://www.nice.org.uk/guidance/ng123/evidence/evidence-review-h-lifestyle-and-conservative-management-options-for-pelvic-organ-prolapse-pdf-6725287413>

## Values and Preferences

There was no evidence from the NICE guideline that was reported on the values and preferences of women living with urinary incontinence in relation to PFMT(14).

## Health Equity

The expert panel acknowledges that access to the appropriate health providers who facilitate and supervise PFMT may be limited, especially for those living in remote areas or those without health insurance. It worth noting that supervised PFMT can be enacted by a wide array of health providers (i.e., it is not limited to pelvic floor physiotherapists), provided they have the appropriate knowledge and skill.

## Expert Panel Justification of Recommendation

There may be benefits from PFMT. No harms were found in women. However, the certainty in this evidence was very low to low. The expert panel determined that when PFMT is implemented appropriately, the benefits of it would outweigh the harms, and persons would value improvements in outcomes.

The expert panel made an addition to the original NICE recommendation: given that the scope of the intended audience of health providers is broader for this BPG than the original NICE guideline, the expert panel recommends that a comprehensive assessment should first be conducted (14). A comprehensive assessment would be conducted by a health provider who has the appropriate knowledge and skills pertaining to one's functional abilities in performing PFMT, such as a nurse continence advisor (NCA) or a pelvic health physiotherapist. Furthermore, noninvasive, conservative measures should be considered prior to medication or surgery (based on the severity of case). Therefore, the expert panel was in agreement with the strength of the recommendation by the NICE expert panel, which was determined to be strong (14).

## Practice Notes

### From the Expert Panel

- In practice, supervised PFMT has been applied for urge suppression in both men and women, and for men after prostate surgery. More research is required in this area.

Additional recommendations from NICE that can support implementation of the recommendation include:

- PFMT program should comprise at least eight contractions, performed three times per day (14).
- Do not use perineometry or pelvic floor electromyography as biofeedback as a routine part of PFMT (14).
- Continue the exercise program if PFMT is beneficial (14).

### Supporting Resources

RESOURCE	DESCRIPTION
<p>Find a health care professional. In: Pelvic Health Solutions [Internet]. [place unknown]: Pelvic Health Solutions; c2010–2020. Available from: <a href="https://pelvichealthsolutions.ca/">https://pelvichealthsolutions.ca/</a></p>	<ul style="list-style-type: none"> <li>■ Website providing a list of physiotherapists (including pelvic health physiotherapists) in Ontario and throughout Canada.</li> <li>■ The listing provides the name of physiotherapists and their company name, address, contact information and the specialized training they have completed.</li> </ul>



## RECOMMENDATION QUESTION # 3:

Should an interprofessional approach be recommended to improve outcomes in persons living with urinary incontinence?

Outcomes: Quality of life, patient satisfaction and episodes of incontinence.

### RECOMMENDATION 3.1:

The expert panel suggests that health-service organizations implement an interprofessional approach to providing care for persons living with urinary incontinence.

**Strength of the recommendation:** Conditional

**Certainty of the evidence of effects:** Low

**Confidence in evidence:** Not applicable

## Discussion of Evidence:

### Benefits and Harms

For the purposes of this recommendation, an interprofessional approach refers to a coordinated approach to continence care by a team of health providers—including reporting and/or referral to a continence specialist—that is based on individual care needs. Research suggests that implementing an interprofessional approach within health-service organizations may improve quality of life (46) and patient satisfaction (46, 47), and that it may reduce episodes of incontinence in persons living with urinary incontinence (47). One study examined the effects of treatment received by persons living with urinary incontinence in an interprofessional pelvic care clinic within a hospital setting (47). The second study reported the effects of a multidisciplinary approach on overweight women referred to an incontinence clinic in a hospital (46). There were no harms reported in the literature related to implementing an interprofessional approach. The evidence was of low certainty due to limitations in how the studies were conducted and the use of different tools to measure outcomes across studies.

For more detailed information on the impact of the intervention (an interprofessional approach) on the prioritized outcomes (quality of life, patient satisfaction and episodes of incontinence), please refer to the evidence profiles available at: <https://rnao.ca/bpg/guidelines/proactive-approach-bladder-and-bowel-management-adults>.

Specific components of the intervention noted in the literature are outlined under “Practice Notes.”

### Values and Preferences

There was no evidence identified in the systematic review that reported on the values and preferences of persons living with urinary incontinence in relation to implementing an interprofessional approach within health-service organizations.

## Health Equity

For some persons living with urinary incontinence, access to an interprofessional team of experts might be limited depending on where they live and the health-service setting in which they live or receive care.

## Expert Panel Justification of Recommendation

The expert panel determined that most persons living with urinary incontinence can be managed appropriately with access to a continence specialist who has knowledge of the condition and who can provide proper guidance regarding its management. Some persons will require a team of experts who are co-located, but not all persons will require this level of care. In addition, the overall evidence for an interprofessional approach was of low certainty. Therefore, the expert panel determined the strength of the recommendation to be conditional.

## Practice Notes

### From the Expert Panel

- The members of the interprofessional team may include nurses (registered nurses, registered practical nurses, nurse practitioners, nurse continence advisors [NCA], nurses specialized in wound, ostomy and continence [NSWOC]), physicians (general practitioners, urogynecologists, urologists, colorectal surgeons), personal support workers, physiotherapists, occupational therapists, dietitians and pharmacists.
- There needs to be a tailored interprofessional approach based on individual care needs. Primary care settings are to initiate evidence-based management and have resources for referral to continence specialists and/or other continence care services (e.g., continence clinics), as required.

**Table 9: Practice Notes from the Evidence**

KEY INTERVENTION	DETAILS FROM THE EVIDENCE
<p><b>Interprofessional approach to care for urinary incontinence</b></p>	<p><b>Fjerbaek et al., 2019</b></p> <ul style="list-style-type: none"> <li>■ The interprofessional team included:                             <ul style="list-style-type: none"> <li>□ a clinical dietitian and gynecological physiotherapists.</li> </ul> </li> <li>■ The interventions were provided for overweight women with stress or mixed urinary incontinence referred to the incontinence clinic at a hospital gynecology department (46).</li> <li>■ An interprofessional approach to care included the following:                             <ul style="list-style-type: none"> <li>□ Four individual dietary counseling sessions (at weeks 1, 4, 8, and 12) and a group session (at week 6) led by a clinical dietitian;</li> <li>□ An exercise program consisting of two training sessions per week for 12 weeks led by experienced gynecological physiotherapists. Each session lasted 1 hour and included warm-up, aerobic interval training, progressive strength training, and stretching or relaxation components;</li> <li>□ One lesson in groups about the anatomy and function of the pelvic floor and an individually planned pelvic floor muscle training (PFMT) program including the use of vaginal cones to be performed at home. The sessions were provided by the physiotherapists (46).</li> </ul> </li> </ul> <p><b>Vrijens et al., 2015</b></p> <ul style="list-style-type: none"> <li>■ The interprofessional team included:                             <ul style="list-style-type: none"> <li>□ a urologist, gynecologist, colorectal surgeon, sexologist, psychiatrist, physiotherapist and an incontinence nurse.</li> </ul> </li> <li>■ An interprofessional approach to care included the following:                             <ul style="list-style-type: none"> <li>□ triage system after referral;</li> <li>□ categorization of patient complaints;</li> <li>□ consultation by relevant specialist(s) in the interdisciplinary team, based on complaints; and</li> <li>□ discussion of complex problems in weekly interdisciplinary meetings (47).</li> </ul> </li> </ul>

RECOMMENDATIONS

**Supporting Resources**

RESOURCE	DESCRIPTION
<p>Locate a Professional. In: The Canadian Continence Foundation [Internet]. Peterborough (ON): The Canadian Continence Foundation; c2020. Available from: <a href="https://www.canadiancontinence.ca/EN/locate-a-professional.php">https://www.canadiancontinence.ca/EN/locate-a-professional.php</a></p>	<ul style="list-style-type: none"> <li>■ Website that outlines various types of continence specialists (and their respective roles) to care for persons living with urinary incontinence.</li> <li>■ Allows persons in Canada to locate an appropriate professional within their city.</li> </ul>

# Recommendations for Fecal Incontinence and/or Constipation

## GOOD PRACTICE STATEMENT:

The expert panel recommends that, prior to developing a plan of care or carrying out interventions, health providers conduct a focused initial assessment in collaboration with the person experiencing fecal incontinence and/or constipation.

This is a good practice statement that does not require application of the GRADE system (12). Conducting an initial assessment before developing a plan of care or implementing any intervention is a standard of professional practice (38). Conducting a focused initial assessment of persons living with fecal incontinence and/or constipation is good clinical practice and a prerequisite for developing a plan of care and providing nursing and other interventions. This good practice statement is applicable to all practice settings where persons living with fecal incontinence and/or constipation are accessing services such as acute care, long-term care, primary and community care, or rehabilitation.

Routine and direct enquiry about fecal incontinence by health providers can support proper detection of fecal incontinence. Identifying the type of fecal incontinence and the possible underlying causes can guide the plan of care and support the identification of appropriate interventions (26). In addition, the initial assessment can identify findings that require reporting to the appropriate member of the interprofessional care team and/or a continence specialist for further evaluation.

## Fecal Incontinence

The International Continence Society identifies age, loose stool, bowel-related disorders (e.g., prior rectal surgery), impaired mobility, functional impairment, dementia, neurological diseases (e.g., stroke or spinal cord injury), and other chronic medical conditions as primary risk factors for fecal incontinence, especially in older persons (26). Persons living with fecal incontinence may be reluctant to report their symptoms to a health provider due to the stigma associated with it (26).

The International Continence Society indicates that health providers conduct an initial assessment of fecal incontinence in persons in order to do the following:

1. Understand the subtypes of fecal incontinence experienced (i.e., passive fecal incontinence, urge fecal incontinence or functional fecal incontinence).
2. Identify a list of risk factors for fecal incontinence (26).

An initial assessment of fecal incontinence can include obtaining a history of the following components (as identified by the International Continence Society):

1. Daily bowel habits—including frequency and stool consistency, as well as the onset, duration and severity of symptoms—to understand the type of fecal incontinence.
2. Information regarding the timing of fecal incontinence (e.g., post-defecation or during the night) to evaluate if fecal incontinence is associated with a bowel movement.

3. Dietary history, to rule out possible underlying causes.
4. Medications, to evaluate the effect on fecal incontinence.
5. Co-morbid conditions, to determine possible underlying causes.
6. Obstetric history, to rule out fecal incontinence associated with the use of forceps, birth weight greater than 4 kg or a fourth-degree tear.
7. Previous surgeries (e.g., anal fissure surgery or **fistula**<sup>G</sup> surgery), pelvic radiation or other pelvic floor problems (e.g., urinary incontinence or pelvic organ prolapse) that may contribute to fecal incontinence.
8. Impact of fecal incontinence on quality of life (26).

### Constipation

Constipation is a common complaint for people of all ages, and its severity varies from person to person. The contributing factors to developing constipation may include (but are not limited to): low fibre diets, inadequate fluid intake, decreased mobility, medication side effects, surgeries and other acute or chronic medical conditions (48).

Identifying the bowel function pattern and the possible underlying causes of constipation can guide the plan of care and support the identification of appropriate interventions (26). In addition, the initial assessment can identify findings that require reporting to the appropriate member of the interprofessional care team and/or a continence specialist for further evaluation.

Bardsley indicates that an initial assessment of constipation can be guided by the following steps:

1. Obtain a baseline history of person's bowel pattern: type and quantity of stool, frequency and timing of bowel movements, and any straining with bowel movements.
2. Assess stool consistency using a Bristol Stool Chart.
3. Obtain a seven-day diet history of daily fluid and fibre intake.
4. Conduct a review of medications to evaluate their effect on constipation.
5. Examine co-morbid conditions that may cause or contribute to constipation.
6. Assess the individual's functional and cognitive status.
7. Perform a digital rectal examination to determine **fecal impaction**<sup>G</sup> (48).

See **Table 10** under “Practice Notes” for further details from the expert panel on the components of fecal incontinence and constipation assessment.

Practice Notes

Table 10: Practice Notes from the Expert Panel

COMPONENTS OF ASSESSMENT	DETAILS OF ASSESSMENT
<p><b>Obtain history of fecal incontinence and/or constipation</b></p>	<ul style="list-style-type: none"> <li>■ Obtaining a general health history can include the following:                             <ul style="list-style-type: none"> <li>□ Identifying factors, including co-morbid conditions, to determine the possible underlying causes of fecal incontinence and/or constipation.                                     <ul style="list-style-type: none"> <li>● For a list of risk factors for fecal incontinence, please see <b>Appendix N</b>.</li> <li>● For a list of conditions that can cause constipation, please see <b>Appendix O</b>.</li> </ul> </li> <li>□ Conducting a medication review of prescription and over-the-counter medications and supplements to evaluate if they contribute to fecal incontinence and/or constipation. Perform the medication review in conjunction with the prescriber and/or pharmacist.                                     <ul style="list-style-type: none"> <li>● For a list of medications that can cause or contribute to fecal incontinence, please see <b>Appendix N</b>.</li> <li>● For a list of medications that can cause constipation, please see <b>Appendix P</b>.</li> </ul> </li> <li>□ Assessing the functional and cognitive status of persons experiencing fecal incontinence.</li> </ul> </li> <li>■ Obtaining a clinical history can include:                             <ul style="list-style-type: none"> <li>□ Dietary history: daily intake of fibre and fluids (including caffeine and alcohol).</li> <li>□ Onset, duration and severity of symptoms.</li> <li>□ Frequency of bowel movements.</li> <li>□ Stool consistency.                                     <ul style="list-style-type: none"> <li>● For a sample Bristol Stool Chart to measure stool consistency, please see <b>Appendix Q</b>.</li> <li>● For a sample bowel elimination record, please see <b>Appendix R</b>.</li> </ul> </li> <li>□ Previous anorectal surgeries.</li> <li>□ A perianal skin assessment to determine the impact of fecal incontinence and/or constipation on the physical aspects of quality of life.</li> <li>□ Degree of bother and the impact on social, psychological and sexual aspects of quality of life caused by fecal incontinence and/or constipation.</li> <li>□ Assessment for any red and/or yellow flags associated with fecal incontinence and/or constipation.</li> </ul> </li> </ul>

RECOMMENDATIONS

COMPONENTS OF ASSESSMENT	DETAILS OF ASSESSMENT
<p><b>Obtain history of fecal incontinence and/or constipation (cont.)</b></p>	<ul style="list-style-type: none"> <li>● “Red flags” are high-alert clinical indicators that require reporting to the appropriate member of the interprofessional team and/or a continence specialist. Examples of red flags include (but are not limited to) pain or bleeding with bowel movement.</li> <li>● “Yellow flags” are concerning clinical indicators that require ongoing assessment (i.e., monitoring) and reporting to the appropriate member of the interprofessional team and/or a continence specialist. Examples of yellow flags include (but are not limited to):                         <ul style="list-style-type: none"> <li>○ fecal incontinence potentially caused by delirium, infection, medication side effects, diarrhea, stool impaction or inadequate access to a toilet; and</li> <li>○ constipation potentially caused by inadequate intake of fluids/fibre, reduced mobility or medication side effects.</li> </ul> </li> </ul> <p><b>Note:</b> Health providers may ask a person’s support network to collect assessment data if a person is unable to provide such details.</p>
<p><b>Report findings</b></p>	<ul style="list-style-type: none"> <li>■ A comprehensive assessment of fecal incontinence and/or constipation is to be conducted by a continence specialist. This includes performing a digital rectal examination to determine anal sphincter tone, anal fissure, rectocele and the presence of hemorrhoids.</li> <li>■ Based on the individual needs of the person, findings can be reported to the following individuals:                         <ul style="list-style-type: none"> <li>□ A member of the interprofessional team who may place a referral to a continence specialist following the initial assessment (as necessary). Examples include:                                 <ul style="list-style-type: none"> <li>● general practitioners;</li> <li>● nurse practitioners;</li> <li>● physiotherapists; and</li> <li>● dietitians.</li> </ul> </li> <li>□ Continence specialists, who include:                                 <ul style="list-style-type: none"> <li>● gynecologists/urogynecologists;</li> <li>● gastroenterologists;</li> <li>● colorectal surgeons;</li> <li>● NCAs;</li> <li>● NSWOCs; or</li> <li>● occupational therapists.</li> <li>● pelvic floor physiotherapists</li> </ul> </li> </ul> </li> <li>■ The reporting process also may be individualized based on the needs and wishes of persons and their support networks.</li> </ul>

## Supporting Resources

RESOURCE	DESCRIPTION
<p>Identifying continence issues. In: Victoria State Government [Internet]. Victoria (AU): Victoria State Government; c2017-2020. Available from: <a href="https://www2.health.vic.gov.au/hospitals-and-health-services/patient-care/older-people/continence/continence-identifying">https://www2.health.vic.gov.au/hospitals-and-health-services/patient-care/older-people/continence/continence-identifying</a></p>	<ul style="list-style-type: none"> <li>■ Website that outlines information on identifying continence issues in older adults.</li> <li>■ It includes initial admission screening questions, assessment of contributing factors, details on taking history and more.</li> </ul>
<p>LeBlanc K, Christensen D, Robbs L, Johnston V, Cleland B, Flett N. Best practice recommendations for the prevention and management of incontinence-associated dermatitis. <i>Wound Care Can.</i> 2010; 8(3): 6-23.</p> <p>The journal article is available from: <a href="https://www.woundscanada.ca/docman/public/wound-care-canada-magazine/2010-vol-8-no-3/376-wcc-2010-v8n3-best-practice-english/file">https://www.woundscanada.ca/docman/public/wound-care-canada-magazine/2010-vol-8-no-3/376-wcc-2010-v8n3-best-practice-english/file</a></p>	<ul style="list-style-type: none"> <li>■ An open access journal article which includes a validated four-item perineal assessment tool that assesses risks contributing to incontinence associated dermatitis (please see Table 2).</li> </ul>
<p>Locate a Professional. In: The Canadian Continence Foundation [Internet]. Peterborough (ON): The Canadian Continence Foundation; c2020. Available from: <a href="https://www.canadiancontinence.ca/EN/locate-a-professional.php">https://www.canadiancontinence.ca/EN/locate-a-professional.php</a></p>	<ul style="list-style-type: none"> <li>■ Website that outlines various types of continence specialists (and their respective roles) to care for persons living with constipation or fecal incontinence.</li> <li>■ Allows persons in Canada to locate an appropriate professional within their city.</li> </ul>

## RECOMMENDATION QUESTION #4:

**Should physical activity be recommended to improve outcomes in persons living with fecal incontinence and/or constipation?**

**Outcomes: Episodes of incontinence, constipation and quality of life.**

### RECOMMENDATION 4.1:

The expert panel recommends that as part of a wider multicomponent program, health providers encourage persons living with constipation to engage in low-intensity physical activity for about 30-60 minutes (as tolerated) at least three times a week to help manage constipation.

**Strength of the recommendation:** Strong

**Certainty of the evidence of effects:** Low

**Confidence in evidence:** Not Applicable

## Discussion of Evidence:

### Benefits and Harms

This recommendation only addresses low-intensity physical activity for the management of constipation; low-intensity physical activity for the management of fecal incontinence was not found in the literature. For the purposes of this recommendation, low-intensity physical activity refers to light, non-strenuous repetitive bodily movement such as walking, low-impact aerobic exercise, light resistance training and engaging in leisure-level sports. Some examples of low-intensity physical activity in the studies included casual walking, physical movement, resistance training and walking on a treadmill while gradually increasing speed for about 30–60 minutes, at least three times a week (4, 31, 49). Aside from the physical activity, health providers in the studies also encouraged behaviors such as adequate dietary fibre intake, a low-calorie diet (for obese women in one study), adequate fluid intake and appropriate squat positions for defecation (4, 31, 49).

Evidence demonstrates that low-intensity physical activity that is part of a wider multicomponent program may decrease constipation and improve quality of life (4, 31, 49). There were no harms reported in the literature related to low-intensity physical activity or other aspects of the multicomponent program. The evidence was of low certainty due to limitations in how the studies were conducted.

For more detailed information on the impact of the intervention (low-intensity physical activity as part of a wider multi-component program) on the prioritized outcomes (constipation and quality of life), refer to the evidence profiles available at: <https://rnao.ca/bpg/guidelines/proactive-approach-bladder-and-bowel-management-adults>.

## Values and Preferences

There was no evidence identified in the systematic review that reported on the values and preferences of persons living with constipation in relation to low-intensity physical activity.

## Health Equity

No evidence was found within the systematic review that directly assessed the impact of physical activity on health equity. More research is required on this topic.

## Expert Panel Justification of Recommendation

There may be benefits from low-intensity physical activity. No harms were found. However, the certainty in this evidence was low. The expert panel determined that persons would value improvements in outcomes and that integrating low-intensity physical activity into one's life offers improvements in various facets of health. For that reason, the expert panel determined the strength of the recommendation to be strong.

## Practice Notes

### From the Expert Panel

- Low-intensity physical activity should be individualized and appropriate to one's age, physical ability and underlying conditions. Please refer to the **Good Practice Statement** on assessment for fecal incontinence and constipation in this BPG (on p. 55).
- Low-intensity physical activity can also help prevent constipation.
- Low-intensity intake alone may not prevent or help manage constipation. It also is important for providers to encourage adequate fluid and fibre intake in persons living with constipation. Please refer to **Recommendation 5.1** for details on fibre intake & **Recommendation 5.2** for details on fluid intake.

## Supporting Resources

RESOURCE	DESCRIPTION
Diabetes Canada. Benefits of physical activity [Internet]. Toronto (ON): Diabetes Canada; c2020. Available from: <a href="https://www.diabetes.ca/diabetescanadawebsite/media/managing-my-diabetes/tools%20and%20resources/benefits-of-physical-activity.pdf?ext=.pdf">https://www.diabetes.ca/diabetescanadawebsite/media/managing-my-diabetes/tools%20and%20resources/benefits-of-physical-activity.pdf?ext=.pdf</a>	<ul style="list-style-type: none"> <li>■ Online resource regarding physical activity for persons with diabetes.</li> <li>■ Includes information related to benefits of physical activity, identifying barriers to physical activity and tips to overcoming barriers.</li> </ul>
Diabetes Canada. Introductory resistance program [Internet]. Toronto (ON): Diabetes Canada; c2020. Available from: <a href="https://www.diabetes.ca/diabetescanadawebsite/media/managing-my-diabetes/tools%20and%20resources/introductory-resistance-program.pdf?ext=.pdf">https://www.diabetes.ca/diabetescanadawebsite/media/managing-my-diabetes/tools%20and%20resources/introductory-resistance-program.pdf?ext=.pdf</a>	<ul style="list-style-type: none"> <li>■ Online resource on guidelines for introductory resistance training for persons with diabetes.</li> <li>■ Includes information related to benefits of resistance training, safety considerations and tips on how to perform the training.</li> </ul>
Diabetes Canada. Maintaining aerobic exercise [Internet]. Toronto (ON): Diabetes Canada; c2020. Available from: <a href="https://www.diabetes.ca/diabetescanadawebsite/media/managing-my-diabetes/tools%20and%20resources/maintaining-aerobic-exercise.pdf?ext=.pdf">https://www.diabetes.ca/diabetescanadawebsite/media/managing-my-diabetes/tools%20and%20resources/maintaining-aerobic-exercise.pdf?ext=.pdf</a>	<ul style="list-style-type: none"> <li>■ Online resource regarding the maintenance of aerobic exercises for persons with diabetes.</li> <li>■ Includes information related to benefits of physical activity and understanding the intensity of aerobic activity.</li> </ul>
Walking. In: NHS Health Scotland [Internet]. [place unknown]: NHS Health Scotland; c2020. Available from <a href="https://www.nhsinform.scot/healthy-living/keeping-active/activities/walking">https://www.nhsinform.scot/healthy-living/keeping-active/activities/walking</a>	<ul style="list-style-type: none"> <li>■ Includes information related to physical and mental health benefits of walking.</li> </ul>
Older adults: Sit up, get dressed, keep moving. In: NHS University Hospitals of North Midlands [Internet]. [place unknown]: UHNM NHS Trust; c2020. Available from: <a href="https://www.uhnm.nhs.uk/our-services/older-adults/">https://www.uhnm.nhs.uk/our-services/older-adults/</a>	<ul style="list-style-type: none"> <li>■ Includes information on how activity can prevent deconditioning syndrome, which can contribute to constipation and incontinence.</li> <li>■ Includes booklets with clear instructions on how to perform bed and chair exercises, that can be downloaded.</li> </ul>

**RECOMMENDATION QUESTION #5:**

**Should adequate intake of fibre and/or fluids be recommended to improve outcomes in persons living with fecal incontinence and/or constipation?**

**Outcomes: Frequency of bowel movements, stool consistency, quality of life and laxative use.**

**RECOMMENDATION 5.1:**

The expert panel suggests that health providers counsel persons on adequate fibre intake to prevent and manage constipation.

**Strength of the recommendation:** Conditional

**Certainty of the evidence of effects:** Low

**Confidence in evidence:** Not applicable

**Discussion of Evidence:****Benefits and Harms**

Twelve studies explored the impact of fibre for the prevention and management of constipation in either healthy persons (those who did not experience constipation) or constipated persons (50-61). The type and amount of fibre varied among the studies. Across nine studies, fibre was in the form of supplements (inulin, wheat bran extract, polydextrose, soluble corn fibre, hydrolyzed guar gum, **psyllium fibre**<sup>G</sup> and high specific volume polysaccharides). Three studies included dietary fibre; two studies included the intake of flaxseed and one study included prunes (52, 60, 61). Five studies required participants to consume the fiber with a prescribed amount of water/fluid (51, 52, 59-61) while one study encouraged increased fluid intake throughout the day (54). The time frame of fibre intake among the studies ranged from 10 days to 12 weeks.

Overall, evidence demonstrates that adequate fibre intake may improve bowel movement frequency, stool consistency and quality of life, and that it may decrease laxative use (50-61). It is important to note that in one of the four studies that reported on the frequency of bowel movements, there was a trend towards a reduction in the frequency of bowel movements after the intake of fibre supplements (51).

Three studies reported adverse events associated with the consumption of fibre supplements, including headache and gastrointestinal symptoms, such as abdominal stretching, abdominal cramping, diarrhea, flatulence, bloating and acid regurgitation (50, 53, 57). However, none of the events led to fibre discontinuation. The evidence was of low certainty due to limitations in how studies were conducted, the use of different tools to measure outcomes across studies and the small number of study participants.



**Caution:** Obtaining a health history and conducting a medication review are required prior to counselling adults on fibre intake. For instance, psyllium fibre is not recommended for those with opioid-induced constipation, as it can lead to bowel obstruction.

For more detailed information on the impact of the intervention (adequate fibre intake) on the prioritized outcomes (frequency of bowel movements, stool consistency, quality of life and laxative use), please refer to the evidence profiles available at: <https://rnao.ca/bpg/guidelines/proactive-approach-bladder-and-bowel-management-adults>.

Details regarding the types of fibre supplements and additional considerations for the intake of dietary fibre (i.e., fibre naturally found in food) are outlined under “Practice Notes”.

## Values and Preferences

There was no evidence identified in the systematic review that reported on the values and preferences of persons living with constipation in relation to adequate fibre intake.

## Health Equity

The expert panel emphasized that fibre supplements can be costly; therefore, may not be accessible to all persons living with constipation.

## Expert Panel Justification of Recommendation

There may be benefits of adequate fibre intake. There also may be some adverse effects. The certainty in this evidence was low. Furthermore, not all persons with constipation may tolerate the consumption of fibre supplements due to their adverse effects. Therefore, the expert panel determined the strength of the recommendation to be conditional.

## Practice Notes

### From the Expert Panel

- Adequate fibre intake alone may not prevent or help manage constipation. It is also important for providers to encourage adequate fluid intake as well as physical activity in persons living with constipation. Refer to **Recommendation 4.1** for details on physical activity and **Recommendation 5.2** for details on fluid intake.
- Although most of the evidence was primarily related to fibre supplements, persons should be encouraged to incorporate fibre-rich foods in their diets. Given the emerging literature base that is implicating the gut microbiome as a critical constituent for health—and the current acceptance that plant-based fibre appears to be an important nutrient source for optimal microbiota diversity and associated function—the expert panel suggests plant-based fibres (62). A list of plant-based fibres can be found under the “Supporting Resources” for this recommendation.
- For guidance on the recommended amount of fibre intake, please refer to *Food Sources of Fibre* by the Dietitians of Canada (found under “Supporting Resources,” below).
- Persons should be referred to a registered dietitian for further, more comprehensive support on incorporating fibre into their diet in order to prevent and manage constipation.

## Supporting Resources

RESOURCE	DESCRIPTION
<p>Focus on Fibre. In: UnlockFood.ca [Internet]. Updated 2018 Oct 31. [place unknown]: Dieticians of Canada; c2020. Available from: <a href="https://www.unlockfood.ca/en/Articles/Fibre/Focus-on-Fibre.aspx">https://www.unlockfood.ca/en/Articles/Fibre/Focus-on-Fibre.aspx</a></p>	<ul style="list-style-type: none"> <li>Website with information on recommended amount of fibre by sex and age group and how to incorporate more fibre into the diet.</li> </ul>
<p>Continence Foundation of Australia. Bristol stool chart [Internet]. Surrey Hills [AU]: Continence Foundation of Australia; c2019. Available from: <a href="https://www.continence.org.au/pages/bristol-stool-chart.html">https://www.continence.org.au/pages/bristol-stool-chart.html</a></p>	<ul style="list-style-type: none"> <li>A chart that outlines seven categories of stool.</li> <li>The website also provides information signs of a healthy bowel.</li> <li>Can also be found in <b>Appendix Q</b>.</li> </ul>
<p>Find a Dietitian. In: Dieticians of Canada [Internet]. [place unknown]: Dietitians of Canada; c2020. Available from: <a href="https://members.dietitians.ca/DCMember/FindDietitianVF?language=en_US">https://members.dietitians.ca/DCMember/FindDietitianVF?language=en_US</a></p>	<ul style="list-style-type: none"> <li>Website to find a dietitian who can provide personal nutrition advice and practice solutions.</li> </ul>
<p>Daily Food and Activity Diary. In: National Heart, Lung, and Blood Institute [Internet]. Bethesda (MD): National Heart, Lung, and Blood Institute; [date unknown]. Available from: <a href="https://www.nhlbi.nih.gov/health/educational/lose_wt/eat/diary.htm">https://www.nhlbi.nih.gov/health/educational/lose_wt/eat/diary.htm</a></p>	<ul style="list-style-type: none"> <li>Daily food and activity diary that allows you to track your food intake and activities in order to help you lose weight or maintain a healthy weight and activity levels.</li> </ul>
<p>Food sources of fibre. In: Dieticians of Canada [Internet]. [place unknown]: Dietitians of Canada; c2016. Available from: <a href="https://www.kfhn.ca/default/assets/File/Food%20sources%20of%20soluble%20fibre.pdf?muraadminpreview&amp;muraadminpreview&amp;mobileformat=false">https://www.kfhn.ca/default/assets/File/Food%20sources%20of%20soluble%20fibre.pdf?muraadminpreview&amp;muraadminpreview&amp;mobileformat=false</a></p>	<ul style="list-style-type: none"> <li>Fact sheet with information on different forms of fibre.</li> <li>Includes information on daily intake of fibre by age group.</li> </ul>

## RECOMMENDATION QUESTION #5:

**Should adequate intake of fibre and/or fluids be recommended to improve outcomes in persons living with fecal incontinence and/or constipation?**

**Outcomes: Stool consistency and laxative use.**

### RECOMMENDATION 5.2:

The expert panel recommends that as part of a wider multicomponent program, health providers counsel persons living with constipation on adequate fluid intake to help manage constipation.

**Strength of the recommendation:** Strong

**Certainty of the evidence of effects:** Very Low

**Confidence in evidence:** Not applicable

### Discussion of Evidence:

#### Benefits and Harms

This recommendation only addresses fluid intake for the management of constipation; fluid intake for the management of fecal incontinence was not found in the literature. Evidence demonstrates that adequate fluid intake that is part of a wider multicomponent program may improve stool consistency and decrease laxative use in persons living with constipation (4, 30). Aside from adequate fluid intake, health providers in the studies also counselled persons on daily dietary fibre consumption and a balanced diet, exercise, optimal positions to defecate and indications of appropriate laxative use (4, 30). Adequate daily fluid intake was encouraged to be between 1500 to 2000 ml in one study (4); it was unspecified in the other study (30).

There were no harms related to adequate fluid intake reported in the literature. The evidence was of very low certainty due to limitations in how the studies were conducted and the small number of study participants.



**Caution:** Counselling on adequate fluid intake would need to be individually tailored for adults on fluid restrictions (e.g., adults living with kidney disease or heart failure) or those with other relevant health conditions.

For more detailed information on the impact of the intervention (adequate fluid intake as part of a wider multicomponent program) on the prioritized outcomes (stool consistency and laxative use), please refer to the evidence profiles available at: <https://rnao.ca/bpg/guidelines/proactive-approach-bladder-and-bowel-management-adults>.

See “Practice Notes” for specific considerations related to adequate fluid intake.

## Values and Preferences

There was no evidence identified in the systematic review that reported on the values and preferences of persons living with constipation in relation to adequate fluid intake.

## Health Equity

Water is an accessible and affordable source of fluid. However, it is important to note that many Indigenous communities within Canada still lack access to drinkable water, which is a critical limitation to achieving health equity.

## Expert Panel Justification of Recommendation

There may be benefits associated with adequate fluid intake. No harms were found. However, the certainty in this evidence was very low. The expert panel determined that it is an inexpensive intervention that can be easily incorporated into the daily lives of people with access to safe drinking water. Furthermore, the benefits of adequate fluid intake outweigh the potential harms for most people, and persons would value improvements in the outcomes. Therefore, the expert panel determined the strength of the recommendation to be strong.

## Practice Notes

### From the Expert Panel

- Adequate fluid intake can also help prevent constipation.
- Persons should be referred to a registered dietitian for further, more comprehensive support on incorporating fluid into their diet in order to prevent and manage constipation.

### From the Evidence

- One study defined adequate daily fluid intake to be 1500 to 2000 ml (4). This evidence is consistent with recommendations by the Dietitians of Canada (63). The expert panel is in agreement with this amount being recommended as the adequate daily fluid intake.

## Supporting Resources

RESOURCE	DESCRIPTION
Facts on Fluids – How to Stay Hydrated [Internet]. [place unknown]: Dietitians of Canada; c2020. Available from: <a href="https://www.unlockfood.ca/en/articles/water/facts-on-fluids-how-to-stay-hydrated.aspx">https://www.unlockfood.ca/en/articles/water/facts-on-fluids-how-to-stay-hydrated.aspx</a>	<ul style="list-style-type: none"> <li>■ Guidelines for fluid intake for men and women.</li> <li>■ Covers types of fluids, the signs and symptoms of dehydration, and strategies to stay hydrated.</li> </ul>
Patient Fluid Intake and Output Sheet [Internet]. [place unknown]: Humber River Hospital; c2014. Available from: <a href="http://hrccatalog.hrrh.on.ca/InmagicGenie/DocumentFolder/002093_fluid%20balance%20sheet.pdf">http://hrccatalog.hrrh.on.ca/InmagicGenie/DocumentFolder/002093_fluid%20balance%20sheet.pdf</a>	<ul style="list-style-type: none"> <li>■ Document for patients to keep track of fluid intake and output.</li> <li>■ Includes a reference guide of common types of fluids and the amount of fluid the items contain.</li> </ul>

**RECOMMENDATION QUESTION #5:**

**Should adequate intake of fibre and/or fluids be recommended to improve outcomes in persons living with fecal incontinence and/or constipation?**

**Outcomes: Stool consistency, episodes of incontinence and quality of life.**

**RECOMMENDATION 5.3:**

The expert panel suggests that health providers promote the option of using psyllium fibre supplements for persons living with fecal incontinence in the community.

**Strength of the recommendation: Conditional**

**Certainty of the evidence of effects: Moderate**

**Confidence in evidence:** Not applicable

**Discussion of Evidence:**

**Benefits and Harms**

Psyllium is a dietary fibre supplement that has high water-holding capacity. This provides a stool normalizing effect: it can soften hard stool in constipation or firm loose/liquid stool in diarrhea (64). Research suggests that psyllium fibre supplementation probably improves stool consistency and reduces episodes of incontinence in persons in the community who are living with fecal incontinence (65, 66).

Two studies reported on the quality of life outcome. One study found that psyllium fibre supplementation may improve quality of life (66), but the second study reported no difference in quality of life between the intervention and comparison groups (65). There were no harms reported in the literature for the outcomes of quality of life, stool consistency or episodes of incontinence. One study did find that psyllium fibre supplementation may increase adverse gastrointestinal symptoms such as abdominal cramping, but it reported that symptoms were absent or fairly small on most days (65). The second study reported diarrhea as an adverse effect (66).

The evidence was of moderate certainty due to limitations in how the studies were conducted, the use of different tools to measure outcomes across studies, the inconsistency in study results and the small number of study participants.



**Caution:** The expert panel cautions that psyllium fibre may cause potential harms (such as constipation or fecal impaction) if used in persons who are not mobile and do not have adequate hydration. Therefore, psyllium fibre supplementation is not indicated for persons who are bed-bound or for the older adult population in long-term care settings. As such, the recommendation applies to persons living in the community.

For more detailed information on the impact of the intervention (psyllium fibre supplementation) on the prioritized outcomes (stool consistency, episodes of incontinence and quality of life), please refer to the evidence profiles available at: <https://rnao.ca/bpg/guidelines/proactive-approach-bladder-and-bowel-management-adults>.

Specific components of the intervention noted in the literature are outlined under “Practice Notes.”

### Values and Preferences

There was no evidence identified in the systematic review that reported on the values and preferences of persons living with fecal incontinence in relation to psyllium fibre supplementation.

### Health Equity

The expert panel emphasized that the cost of psyllium fibre supplements may not be covered by insurance plans for all persons living with fecal incontinence. As such, persons may have challenges accessing psyllium fibre supplements due to their cost.

### Expert Panel Justification of Recommendation

There may be benefits to using psyllium fibre supplements: it may improve stool consistency and quality of life, and it may reduce episodes of fecal incontinence. The overall evidence was of moderate certainty. However, psyllium fibre supplementation was associated with side effects, such as abdominal cramping and diarrhea in persons living in the community who experienced fecal incontinence. The expert panel emphasized that psyllium fibre may cause potential harms (such as constipation or fecal impaction) if used in persons who are not mobile and who do not have adequate hydration. Given the side effects and potential harms, the expert panel determined the strength of the recommendation to be conditional.

### Practice Notes

#### From the Expert Panel

- Prior to giving psyllium fibre supplements, health providers should complete an assessment to identify the cause of fecal incontinence for persons living in the community.
- Encourage intake of food fibre sources prior to considering the option of using psyllium fibre supplements.
- There needs to be a graduated dosing of psyllium (e.g., start with a teaspoon and increase if tolerated).

**Table 11: Practice Notes from the Evidence**

KEY INTERVENTION	DETAILS FROM THE EVIDENCE
<p><b>Adequate psyllium fibre intake</b></p>	<p><b>Amount of psyllium fibre supplemented</b></p> <ul style="list-style-type: none"> <li>■ Bliss et al. (2014) used 14.6 g of psyllium/day for 32 days, after a 14-day run-in baseline period (65).                             <ul style="list-style-type: none"> <li>□ Participants were ≥18 years, living in the community and experiencing fecal incontinence at least twice in a two-week period.</li> <li>□ Persons with swallowing difficulties, malabsorption disorder or allergy to fibres—or those who regularly used a laxative or were tube-fed—were not included in the study (65).</li> </ul> </li> <li>■ Markland et al. (2105) used 3.4 mg of psyllium/day for four weeks (66).                             <ul style="list-style-type: none"> <li>□ Participants had a mean age of 60.7 ± 10.1 years.</li> <li>□ Specific co-morbidities included diabetes mellitus, hypertension, congestive heart failure, liver disease, cholecystectomy, previous hemorrhoid surgery and lactose intolerance (66).</li> </ul> </li> </ul>

RECOMMENDATIONS



**RECOMMENDATION QUESTION #6:**

**Should an interprofessional approach be recommended to improve outcomes in persons living with fecal incontinence and/or constipation?**

**Outcomes: Quality of life, access to care, patient satisfaction, episodes of incontinence and constipation**

**RECOMMENDATION 6.1:**

The expert panel suggests that health-service organizations implement an interprofessional approach to providing care for persons living with fecal incontinence and/or constipation.

**Strength of the recommendation:** Conditional

**Certainty of the evidence of effects:** Low

**Confidence in evidence:** Low

**Discussion of Evidence:****Benefits and Harms**

Findings from quantitative research demonstrate that implementing an interprofessional approach within health-service organizations may improve quality of life and patient satisfaction, and that it may reduce episodes of incontinence in persons living with fecal incontinence (67). It also may reduce the incidence of constipation in persons living with constipation (68). The quantitative evidence was of low certainty due to limitations in how the studies were conducted and the small number of study participants.

One qualitative study reporting on access to continence services and patient satisfaction found that access to an integrated care pathway was generally perceived as positive by persons living with fecal incontinence, and that it could be a good option to explore in the future (69). The qualitative evidence was of low confidence due to limitations in how the study was conducted and the small number of study participants.

There were no harms reported in the literature for the outcomes of access to care, patient satisfaction, episodes of incontinence and constipation. However, one study reported a trend towards a decrease in one out of four domains (e.g., coping/behaviour) for quality of life when an integrated rapid assessment and treatment pathway was compared to a standard care pathway.

For more detailed information on the impact of the intervention (interprofessional approach) on the prioritized outcomes (quality of life, access to care, patient satisfaction, episodes of incontinence and constipation), please refer to the evidence profiles available at: <https://rnao.ca/bpg/guidelines/proactive-approach-bladder-and-bowel-management-adults>.

Specific components of the intervention noted in the literature—and additional considerations from the expert panel—are outlined under the “Practice Notes” for this recommendation.

## Values and Preferences

The evidence indicates that persons living with fecal incontinence attributed high value to having direct access to interprofessional continence care services in the community setting. Persons were satisfied with the referral process, timely access to continence team consults and services, and proper management of their symptoms (69).

Persons living with fecal incontinence who used the traditional care pathway approach raised the issue of general practitioners being unaware of existing community continence services. They also experienced delays in referrals to the appropriate continence services and felt that the continence services were “hidden” away (69).

## Health Equity

For some persons living with fecal incontinence and/or constipation, access to an interprofessional team of experts might be limited depending on where they live and the health-service setting in which they live or receive care.

## Expert Panel Justification of Recommendation

The expert panel determined that most persons living with fecal incontinence and/or constipation can be appropriately managed with access to a continence specialist who has knowledge of the condition and who can provide proper guidance regarding its management. Some persons will require a team of experts who are co-located, but not all persons require this level of care. In addition, the overall evidence for an interprofessional approach was of low certainty. Therefore, the expert panel determined the strength of the recommendation to be conditional.

## Practice Notes

### From the Expert Panel

- The members of the interprofessional team may include nurses (registered nurses, registered practical nurses, nurse practitioners, nurse continence advisors [NCA], nurses specialized in wound, ostomy and continence [NSWOC]), physicians (general practitioners, urogynecologists, urologists, colorectal surgeons), personal support workers, physiotherapists, occupational therapists, dietitians and pharmacists.
- There needs to be a tailored interprofessional approach that is based on individual care needs. Primary care settings are to initiate evidence-based management and have resources for referral to continence specialists and/or other continence care services (e.g., continence clinics) as required.

**Table 12: Practice Notes from the Evidence**

KEY INTERVENTION	DETAILS FROM EVIDENCE
Interprofessional approach to care for fecal incontinence and/or constipation	<p><b>Hussain, Lim and Stojkovic, 2017 &amp; Rimmer et al., 2015</b></p> <ul style="list-style-type: none"> <li>■ Use of clinical pathways with referrals and consults to a continence team for fecal incontinence (67, 69).</li> <li>■ The clinical pathways included an interprofessional team of health providers: <ul style="list-style-type: none"> <li>□ Integrated Rapid Assessment and Treatment (IRAT) Pathway: team of surgeons, pelvic floor physiotherapist, anorectal physiology nurse practitioner and an independent researcher (67).</li> <li>□ Integrated Care Pathway (ICP): bowel function nurse specialist (BFNS), community continence team (CCT), and colorectal surgeon consultant within a pelvic floor dysfunction service (69).</li> </ul> </li> </ul> <p><b>Osuafor et al., 2018</b></p> <ul style="list-style-type: none"> <li>■ Quality improvement projects planned and carried out by an interprofessional team to prevent and manage constipation (68). It included: <ul style="list-style-type: none"> <li>□ Constipation audits in the wards.</li> <li>□ Interprofessional team meetings to develop an algorithm to prevent, detect and treat constipation.</li> <li>□ The interprofessional team consisted of a ward clinical nurse manager, staff nurses, dietitians, physiotherapists and doctors (68).</li> </ul> </li> </ul>

**Supporting Resources**

RESOURCE	DESCRIPTION
Locate a Professional. In: The Canadian Continence Foundation [Internet]. Peterborough (ON): The Canadian Continence Foundation; 2020. Available from: <a href="https://www.canadiancontinence.ca/EN/locate-a-professional.php">https://www.canadiancontinence.ca/EN/locate-a-professional.php</a>	<ul style="list-style-type: none"> <li>■ A website that outlines various types of continence specialists (and their respective roles) to care for persons living with constipation or fecal incontinence.</li> <li>■ Allows persons in Canada to locate an appropriate professional within their city.</li> </ul>

## RECOMMENDATION QUESTION #7:

**Should a bowel protocol be recommended to improve outcomes in persons living with fecal incontinence and/or constipation?**

**Outcomes: Constipation and laxative use.**

### RECOMMENDATION 7.1:

The expert panel recommends that health-service organizations implement a bowel protocol to manage constipation, which can be individualized.

**Strength of the recommendation:** Strong

**Certainty of the evidence of effects:** Very Low

**Confidence in evidence:** Not applicable

## Discussion of Evidence:

### Benefits and Harms

This recommendation only addresses bowel protocol for the management of constipation; a bowel protocol for the management of fecal incontinence was not found in the literature. For the purposes of this recommendation, a bowel protocol is a step-by-step outline of strategies to manage constipation in individuals.

Evidence demonstrates that the implementation of a bowel protocol may decrease constipation and the use of laxatives among persons who live with constipation (32, 68, 70). The studies examined the impact of implementing bowel protocols across geriatric in-patient settings (e.g., long-term care and geriatric rehabilitation). There were no harms reported in the literature related to a bowel protocol. The evidence was of very low certainty due to limitations in how the studies were conducted and the small number of study participants.

For more detailed information on the impact of the intervention (bowel protocol) on the prioritized outcomes (constipation and laxative use), refer to the evidence profiles available at: <https://rnao.ca/bpg/guidelines/proactive-approach-bladder-and-bowel-management-adults>.

Specific components of bowel protocols among the studies—and any additional considerations from the expert panel—are outlined under the “Practice Notes” for this recommendation. Examples of bowel protocols can be found in [Appendix S](#).

### Values and Preferences

There was no evidence identified in the systematic review that reported on the values and preferences of persons living with constipation in relation to bowel protocols.

## Expert Panel Justification of Recommendation

There may be benefits with bowel protocols. No harms were found. However, the certainty in this evidence was very low. The expert panel determined that persons would value improvements in outcomes, and that the benefits outweigh any potential harms, especially if bowel protocols are individualized for patient needs. Therefore, the expert panel determined the strength of the recommendation to be strong.

## Practice Notes

### From the Expert Panel

- When implementing a bowel protocol across an organization, the protocol should be individualized to the needs, preferences and health history of the person.
- Although the study settings were specific to geriatric inpatient settings (e.g., long-term care and geriatric rehabilitation), the bowel protocols are applicable to other health-care settings, such as in the community and in acute care.

**Table 13: Practice Notes from the Evidence**

KEY INTERVENTION	DETAILS FROM EVIDENCE
<b>Components of a bowel protocol</b>	<ul style="list-style-type: none"> <li>■ The specific interventions within each bowel protocol varied across studies. However, there were some commonalities among the protocols, such as the following:               <ul style="list-style-type: none"> <li>□ the promotion of fibre and fluid intake (32, 68, 70);</li> <li>□ health teaching regarding exercise/mobility (32, 68, 70);</li> <li>□ medication review, followed by physical assessment (32, 68, 70);</li> <li>□ medication for relief (32, 68, 70); and</li> <li>□ if there was still no bowel movement, the protocols suggested contacting the physician (68, 70).</li> </ul> </li> </ul>
<b>Developing a bowel protocol</b>	<ul style="list-style-type: none"> <li>■ Bowel protocols were developed by an internal multidisciplinary team in two of the three studies (68, 70). This demonstrates the importance of decision making steered by a variety of health providers.</li> <li>■ In one study, the working group included a physician, pharmacist, nurse, researcher, dietitian and member of senior administration (70). In the other study, the working group included the clinical nurse manager, staff nurses, dietitians, physiotherapists and physicians (68).</li> </ul>

## Research Gaps and Future Implications

The RNAO best practice guideline development and research team and the expert panel identified priority areas for future research (outlined in **Table 14** and **Table 15**). Studies conducted in these areas would provide further evidence to support high-quality and equitable support for persons living with urinary incontinence, fecal incontinence and/or constipation. The list is not exhaustive; other areas of research may be required.

**Table 14: Priority Research Areas per Recommendation Question**

RECOMMENDATION QUESTION	PRIORITY RESEARCH AREA
<p><b>RECOMMENDATION QUESTION #1</b></p> <p><b>Should toileting strategies be recommended to improve outcomes in persons living with urinary incontinence?</b></p> <p><b>Outcomes: Episodes of incontinence, quality of life and use of incontinence products.</b></p>	<ul style="list-style-type: none"> <li>■ Exploring the impact of toileting strategies on persons with dementia or other behavioural issues.</li> <li>■ The impact of implementing individualized toileting strategies on caregiver burden.</li> <li>■ The effectiveness of toileting strategies in preventing skin breakdown in persons living with urinary incontinence.</li> </ul>
<p><b>RECOMMENDATION QUESTION #2</b></p> <p><b>Should physical activity be recommended to improve outcomes in persons living with urinary incontinence?</b></p> <p><b>Outcomes: Episodes of incontinence and physical limitations.</b></p>	<ul style="list-style-type: none"> <li>■ Studies comparing sedentary lifestyle versus walking and its impact on urinary incontinence outcomes.</li> <li>■ The effectiveness of low-intensity exercise on males living with urinary incontinence.</li> <li>■ The impact of PFMT on males living with urinary incontinence.</li> <li>■ The effectiveness of low-intensity exercise on urinary incontinence in older persons.</li> <li>■ The impact of physical activity on measures of mobility and falls rates among persons living with urinary incontinence.</li> </ul>
<p><b>RECOMMENDATION QUESTION #3</b></p> <p><b>Should an interprofessional approach be recommended to improve outcomes in persons living with urinary incontinence?</b></p> <p><b>Outcomes: Quality of life, patient satisfaction and episodes of incontinence.</b></p>	<ul style="list-style-type: none"> <li>■ The impact of implementing an interprofessional approach on quality of life and access to care for persons living with urinary incontinence.</li> <li>■ Exploring the benefits of having access to an interprofessional team (at the same location) versus appropriate referral to a continence specialist with knowledge regarding management of the condition.</li> <li>■ Explore the benefits of offering virtual consultations by continence specialists.</li> </ul>

RECOMMENDATION QUESTION	PRIORITY RESEARCH AREA
<p><b>RECOMMENDATION QUESTION #4</b></p> <p>Should physical activity be recommended to improve outcomes in persons living with fecal incontinence and/or constipation?</p> <p>Outcomes: Episodes of incontinence, constipation and quality of life.</p>	<ul style="list-style-type: none"> <li>■ The effectiveness of low-intensity physical activity on males living with constipation.</li> <li>■ The impact of physical activity on measures of mobility and falls rates in persons living with constipation.</li> <li>■ The impact of physical activity on outcomes for persons living with fecal incontinence.</li> </ul>
<p><b>RECOMMENDATION QUESTION #5</b></p> <p>Should adequate intake of fibre and/or fluids be recommended to improve outcomes in persons living with fecal incontinence and/or constipation?</p> <p>Outcomes: Frequency of bowel movements, stool consistency, laxative use, episodes of incontinence and quality of life.</p>	<ul style="list-style-type: none"> <li>■ The effectiveness of dietary fibre (such as wheat, fruits and vegetables) on constipation.</li> <li>■ Exploring the side effects of psyllium fibre on constipation and fecal impaction.</li> <li>■ The impact of using psyllium fibre among persons who are bed-bound and persons in long-term care settings.</li> <li>■ Identifying the effectiveness of psyllium fibre when used in conjunction with other strategies, such as adequate hydration and increased mobility.</li> <li>■ The impact of fibre and/or fluid intake on outcomes in persons living with fecal incontinence.</li> </ul>
<p><b>RECOMMENDATION QUESTION #6</b></p> <p>Should an interprofessional approach be recommended to improve outcomes in persons living with fecal incontinence and/or constipation?</p> <p>Outcomes: Quality of life, access to care, patient satisfaction, episodes of incontinence and constipation.</p>	<ul style="list-style-type: none"> <li>■ Exploring the benefits of having access to an interprofessional team (at the same location) versus appropriate referral to a continence specialist with knowledge regarding management of the condition.</li> <li>■ Explore the benefits of offering virtual consultations by continence specialists.</li> </ul>
<p><b>RECOMMENDATION QUESTION #7</b></p> <p>Should a bowel protocol be recommended to improve outcomes in persons living with fecal incontinence and/or constipation?</p> <p>Outcomes: Constipation and laxative use.</p>	<ul style="list-style-type: none"> <li>■ The impact of bowel protocol on persons who live with fecal incontinence.</li> <li>■ The effectiveness of a bowel protocol in various health settings, such as in acute care and in the community.</li> </ul>

**Table 15: Research Areas Prioritized by the Expert Panel**

- Should incontinence education with implementation follow-up be recommended to improve outcomes in persons living with urinary incontinence, fecal incontinence and/or constipation?
- Should standardized screening questions be recommended to improve outcomes in persons living with urinary incontinence, fecal incontinence and/or constipation?
- Should de-prescribing drugs affecting bladder and bowel function be recommended to improve outcomes in persons living with urinary incontinence, fecal incontinence and/or constipation?



# Implementation Strategies

Implementing BPGs at the point-of-care is multifaceted and challenging. It takes more than awareness and distribution of BPGs for practice to change: BPGs must be adapted for each practice setting in a systematic and participatory way to ensure that recommendations fit the local context (71). The 2012 RNAO *Toolkit: Implementation of Best Practice Guidelines, Second Edition* (18) provides an evidence-based process for doing this. It can be downloaded at [www.RNAO.ca/bpg/resources/toolkit-implementation-best-practice-guidelines-second-edition](http://www.RNAO.ca/bpg/resources/toolkit-implementation-best-practice-guidelines-second-edition).

The *Toolkit* is based on emerging evidence that the successful uptake of best practices in health care is more likely when the following occur:

- leaders at all levels are committed to supporting guideline implementation;
- BPGs are selected for implementation through a systematic, participatory process;
- stakeholders for whom the guidelines are relevant are identified and engaged in the implementation;
- environmental readiness for implementing guidelines is assessed;
- the BPG is tailored to the local context;
- barriers and facilitators to using the guideline are assessed and addressed;
- interventions to promote use of the guideline are selected;
- use of the BPG is systematically monitored and sustained;
- evaluation of the BPG's impact is embedded in the process; and
- there are adequate resources to complete all aspects of the implementation.

The *Toolkit* uses the Knowledge-to-Action framework to demonstrate the process steps required for knowledge inquiry and synthesis (72). It also guides the adaptation of the new knowledge to the local context and implementation. This framework suggests identifying and using knowledge tools (such as BPGs) to identify gaps and begin the process of tailoring the new knowledge to local settings.

RNAO is committed to widespread deployment and implementation of our BPGs. We use a coordinated approach to dissemination, incorporating a variety of strategies, including the following:

1. The Nursing Best Practice Champion Network<sup>®</sup>, which develops the capacity of individual nurses to foster awareness, engagement and adoption of BPGs.
2. The BPG Order Sets provide clear, concise and actionable intervention statements derived from practice recommendations. BPG Order Sets can be readily embedded within electronic records, but they can also be used in paper-based or hybrid environments.
3. The BPSO<sup>®</sup> designation, which supports implementation at the organization and system levels. BPSOs focus on developing evidence-based cultures with the specific mandate to implement, evaluate and sustain multiple RNAO BPGs.

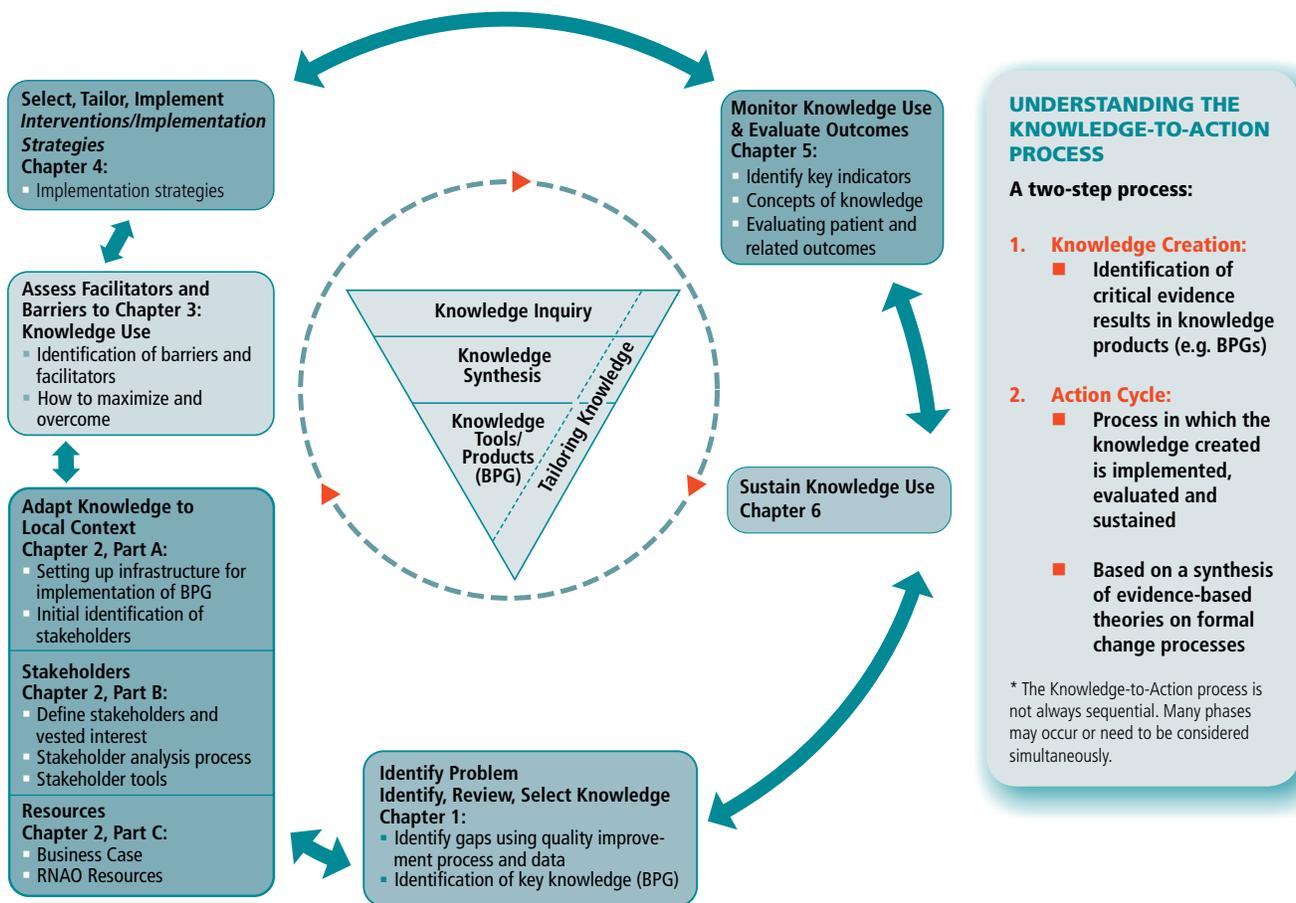
In addition, we offer annual capacity-building learning institutes on specific BPGs and their implementation.

Information about our implementation strategies can be found at:

- RNAO Best Practice Champions Network® : <https://RNAO.ca/bpg/get-involved/champions>
- RNAO BPG Order Sets: <http://RNAO.ca/ehealth/bpgordersets>
- RNAO BPSO® : <https://RNAO.ca/bpg/bpso>
- RNAO capacity-building learning institutes and other professional development opportunities: <https://RNAO.ca/events>

Figure 1: Knowledge-to-Action Framework

### REVISED KNOWLEDGE-TO-ACTION FRAMEWORK



Source: Adapted by the expert panel from: Straus S, Tetroe J, Graham ID, editors. Knowledge translation in health care. Oxford (UK): Wiley-Blackwell; 2009.

The RNAO *Toolkit: Implementation of Best Practice Guidelines, Second Edition* is under review. The next edition is expected to be issued in 2021.

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## Appendix A: Glossary of Terms

**Adopted recommendation:** Adopting a recommendation entails using an existing, trustworthy recommendation without changes to the original recommendation, in that it would have the same specific population, intervention and comparators, and the same certainty in the evidence rating (13). This also means that the expert panel agrees with the judgments made by the original guideline developer that determine the direction and strength of the recommendation (13).

**BPG Order Sets:** Provides clear, concise and actionable intervention statements that are derived from a practice recommendation. BPG Order Sets can be readily embedded within electronic records, but they may also be used in paper-based or hybrid environments.

**Best practice guideline:** “Best practice guidelines are systematically developed, evidence-based documents that include recommendations for nurses and the interprofessional team, educators, leaders and policy-makers, persons and their families on specific clinical and healthy work environment topics. BPGs promote consistency and excellence in clinical care, health policies and health education, ultimately leading to optimal health outcomes for people and communities and the health system” (73).

**Bladder training:** Bladder training involves lifestyle modifications (e.g., eliminating bladder irritants from diet, managing fluid intake, weight control, bowel regulation and smoking cessation) and the use of relaxation and distraction techniques for the control of urinary frequency and urgency (42).

**Bowel protocol:** In this BPG, a bowel protocol is a step-by-step outline of strategies to manage constipation in individuals.

**CERQual:** The Confidence in the Evidence from Reviews of Qualitative Research (CERQual) is a methodological approach to assess the amount of confidence that can be placed in findings from a body of qualitative evidence about an outcome of interest. The assessment provides a transparent means to decide if the review finding reasonably represents the phenomenon under study, which can facilitate guideline panels to make health recommendations (74).

*See CERQual criteria*

**CERQual criteria:** When using CERQual, four components contribute to the assessment of confidence in the evidence for each finding:

1. Methodological limitations, which look at issues in the design of the primary study or problems in the way it is conducted.
2. Relevance, whereby primary studies that support a finding are assessed together and a decision is made regarding the applicability of the findings to the population, phenomenon and setting outlined in the research question.
3. Coherence, whereby an assessment is made of whether the primary studies provide sufficient data and a convincing explanation for the review findings.
4. Adequacy of data, whereby an overall assessment is made about the richness and quantity of the data that support the review finding and phenomenon of interest (74).

See *CERQual*

**Comprehensive assessment:** For the purpose of this BPG, comprehensive assessment refers to an in-depth assessment completed by a continence specialist who has advanced knowledge, judgment and skills about the physiology and management of urinary incontinence, fecal incontinence and constipation.

**Consensus:** A process used to reach agreement among a group or panel during a Delphi or modified Delphi technique (75). A consensus of 70 per cent agreement from all voting expert panel members was required for the strength of recommendations within this BPG.

**Conservative management:** “Any therapy that does not involve pharmacological or surgical intervention. It includes principally, lifestyle interventions, physical therapies, [a] scheduled voiding regimen (e.g., not considered part of the traditional biomedical model), complimentary therapies, anti-incontinence devices, supportive rings/pessaries for pelvic organ prolapsed and pads/catheters” (76).

**Continence:** For the purposes of this BPG, refers to having no involuntary loss of urine or feces (with or without support from other people and use of devices, aids or strategies) (77).

**Continence specialist:** In this BPG, a continence specialist refers to a health provider who has advanced knowledge and expertise in the assessment and management of persons experiencing urinary incontinence, fecal incontinence and/or constipation. Continence care specialists include gynecologists/urogynecologists, urologists, gastroenterologists, colorectal surgeons, nurse continence advisors (NCAs), nurses specialized in wound, ostomy, and continence care (NSWOCs), pelvic floor physiotherapists and occupational therapists.

**Constipation:** The difficult or infrequent passage of stools (less than three bowel movements per week) (4). Constipation may be acute or chronic (lasting more than three months), and it may be in response to a variety of physiological, mechanical and medically related factors, including medication use (5). However, the most common type is functional constipation, for which there is no underlying cause (5).

**Downgrade:** When limitations in the individual studies potentially bias the results in GRADE and GRADE-CERQual, the certainty of evidence will decrease (78). For example, a body of quantitative evidence for one priority outcome may begin with high certainty, but due to serious limitations in one or more of the five GRADE criteria, it will be rated down by one or two levels (78).

**Education statement:** Organizational approaches to the delivery of education in health-service organizations and academic institutions to support evidence-based practice. Education statements are based on an analysis of educational recommendations across several BPGs on diverse clinical topics and populations. Education statements can be applicable to all clinical BPGs, and they can be contextually adapted within health-service organizations and academic institutions to support implementation of clinical recommendations.

**Evidence-based nursing practice:** The integration of research evidence with clinical expertise and patient values. It unifies research evidence with clinical expertise and encourages the inclusion of patient preferences (79).

**Evidence-to-Decision (EtD) frameworks:** A table that helps guideline panels make decisions when moving from evidence to recommendations. The purpose of the EtD framework is to summarize the research evidence, outline important factors that can determine the recommendation, inform panel members about the benefits and harms of each intervention considered, and increase transparency about the decision-making process in the development of recommendations (15).

**Fecal impaction:** The inability to evacuate dry, large and hard stool lodged in the lower gastrointestinal tract, most likely the rectum (80).

**Fecal incontinence:** The involuntary loss of liquid or solid stools (6). Fecal incontinence can be caused by physiological, mechanical and medical factors, including (but not limited to) constipation, muscle injury or muscular weakness, nerve damage, neurologic diseases, loss of stretch in the rectum, hemorrhoids or rectal prolapse (7). The different subtypes of fecal incontinence include:

**Passive fecal incontinence:** The “involuntary leakage of feces without forewarning. A small amount of soiling and seepage between the buttocks or on a small pad or underwear are symptoms of minor passive fecal incontinence. Passive fecal incontinence is frequently related to internal anal sphincter dysfunction, while urge fecal incontinence is often associated with external anal sphincter dysfunction” (26).

**Urge fecal incontinence:** The “inability to defer defecation once the urge is perceived for long enough to reach a toilet. However, as distances to a toilet will vary, this is an inconsistent and uncontrolled condition” (26).

**Functional fecal incontinence:** The involuntary leakage of feces “due to limitations in mobility, manipulating clothing, or toileting ability or delayed assistance with toileting” (26).

**Fistula:** “An abnormal opening or passage between two organs or between an organ and the surface of the body” (81).

**Glycosuria:** Occurs when glucose (sugar) is excreted in the urine (82).

**Good practice statement:** Is directed primarily to nurses and the interprofessional teams who provide care to persons and their families across the spectrum of care, including (but not limited to): primary care, acute care, home care and long-term care. It refers to a practice already accepted as beneficial or practical advice.

In the case of this BPG, the good practice statements are believed to be so beneficial that conducting a systematic review to prove their efficacy would be unreasonable. These statements are not based on a systematic review and do not receive a rating of the certainty or confidence in the evidence or strength (i.e., conditional or strong) (12).

**GRADE:** The Grading of Recommendations Assessment, Development and Evaluation (GRADE) is a methodological approach to assess the certainty of a body of evidence in a consistent and transparent way, and to develop recommendations in a systematic way. The body of evidence across identified important and/or critical outcomes is evaluated based on the risk of bias, consistency of results, relevance of studies, precision of estimates, publication bias, large effect, dose-response and opposing confounding (15).

When using GRADE, five components contribute to the assessment of confidence in the evidence for each outcome. These components are as follows:

1. Risk of bias, which focuses on flaws in the design of a study or problems in its execution.
2. Inconsistency, which looks at a body of evidence and assesses whether the results point in the same direction or if they are different.
3. Imprecision, which refers to the accuracy of results based on the number of participants and/or events included, and the width of the confidence intervals across a body of evidence.
4. Indirectness, whereby each primary study that supports an outcome is assessed and a decision is made regarding the applicability of the findings to the population, intervention and outcome outlined in the research question.
5. Publication bias, where a decision is made about whether the body of published literature for an outcome potentially includes only positive or statistically significant results (15).

**Health provider:** Refers to both regulated workers (e.g., nurses, physicians, dieticians and social workers) and unregulated workers (e.g., personal support workers) who are part of the interprofessional team.

**Regulated health provider:** In Ontario, the *Regulated Health Professional Act, 1991* (RHPA) provides a framework for regulating 23 health professions, outlining the scope of practice and the profession-specific controlled or authorized acts that each regulated professional is authorized to perform when providing health care and services (9).

**Unregulated health provider:** Unregulated health providers fulfill a variety of roles in areas that are not subject to the RHPA. They are accountable to their employers but not to an external regulating professional body (e.g., the College of Nurses of Ontario). Unregulated health providers fulfill their roles and tasks as determined by their employer. Unregulated health providers only have the authority to perform a controlled act as set out in the RHPA if the procedure falls under one of the exemptions set out in the Act (10).

**Hematuria:** Passage of visible blood mixed with urine (6).

**Interprofessional team:** A team comprised of multiple health providers -- regulated and unregulated -- who work collaboratively with the affected person and their chosen family, to deliver comprehensive and quality health services to people within, between and across health-care settings (11). Key interprofessional team members supporting persons living with urinary incontinence, fecal incontinence and/or constipation may include: nurses (registered nurses, registered practical nurses, nurse practitioners, clinical nurse specialists, nurse continence advisors [NCA], nurses specialized in wound, ostomy and continence [NSWOC]), physicians (general practitioners, urogynecologists, urologists, colorectal surgeons), personal support workers, physiotherapists, occupational therapists, dietitians and pharmacists. It is important to emphasize that the affected person and their support network are at the centre as active participants of the team.

**Laxative:** “Laxatives are medicines that treat constipation, either by softening the stools or by stimulating the lower intestines to push out stool” (114).

**Meta-analysis:** A systematic review of randomized controlled trials that uses statistical methods to analyze and summarize the results of the included studies (83).

*See systematic review*

**Nurse:** Refers to registered nurses, licensed practical nurses (referred to as “registered practical nurses” in Ontario), registered psychiatric nurses and nurses in advanced practice roles, such as nurse practitioners and clinical nurse specialists (9).

**Outcomes:** A dependent variable, or the clinical and/or functional status of a patient or population, that is used to assess if an intervention is successful. In GRADE, outcomes are prioritized based on if they are: (a) critical for decision making; (b) important but not critical for decision making; or (c) not important. Use of these outcomes helps make literature searches and systematic reviews more focused (15).

**Pelvic floor muscle training (PFMT):** An exercise program aimed at improving specific deficiencies in pelvic floor muscle structure or function (45). It is based on assessment of a person’s ability to contract the pelvic floor muscle.

**Pelvic organ prolapse:** “Pelvic organ prolapse happens when the muscles and tissues supporting the pelvic organs (the uterus, bladder or rectum) become weak or loose. This allows one or more of the pelvic organs to drop or press into or out of the vagina” (84).

**Physical limitations:** A domain of the King’s Health Questionnaire, a valid and reliable instrument for the assessment of quality of life in women living with urinary incontinence. The physical limitation domain refers to the degree of physical or functional activities such as walking, climbing, running, bending, kneeling and participating in known sports, physical exercises, travel and so on. The domain consists of two questions that are rated as “not at all,” “a little,” “moderately” and “a lot” (85).

**PICO research question:** A framework to outline a focused question. It specifies four components:

1. The patient or population that is being studied.
2. The intervention to be investigated.
3. The alternative or comparison intervention.
4. The outcome that is of interest (15).

**Prompted voiding:** Prompted voiding refers to using verbal and physical cues to prompt persons to attend to their wet/dry status and then encouraging them to use the toilet through positive reinforcement (40).

**Proteinuria:** The presence of elevated protein in the urine (86).

**Psyllium fibre:** A dietary fibre supplement that has high water-holding capacity to provide a stool normalizing effect. It can soften hard stool in constipation or firm loose/liquid stool in diarrhea (64).

**Pyuria:** The presence of white blood cells or leukocytes in urine (87).

**Qualitative research:** An approach to research that seeks to convey how human behaviour and experiences can be explained within the context of social structures, and through the use of an interactive and subjective approach to investigate and describe phenomena (88).

**Quasi-experimental study:** A study that estimates causal effects by observing the exposure of interest, but in which the experiments are not directly controlled by the researcher and lack randomization (i.e., before-and-after designs) (89).

**Randomized controlled trial (RCT):** An experiment in which the investigator assigns one or more interventions to participants who are randomly allocated to either the experimental group (receives intervention) and the comparison (conventional treatment) or control group (no intervention or placebo) (83).

**Recommendation:** A course of action(s) that directly answers a recommendation question (also known as a PICO research question). A recommendation is based on a systematic review of the literature and is made in consideration of its: (a) benefits and harms; (b) values and preferences; and (c) health equity. All recommendations are given a strength—either strong or conditional—through panel consensus.

It is important to note that recommendations should not be viewed as dictates, because recommendations cannot take into account all of the unique features of individual, organizational and clinical circumstances (15).

**Recommendation question:** A priority research area of practice, policy or education identified by expert panel members that requires evidence to answer. The recommendation question may also aim to answer a topic area around which there is ambiguity or controversy. The recommendation question informs the research questions, which guides the systematic review (15).

**Stakeholder:** An individual, group or organization that has a vested interest in the decisions and actions of organizations, and which may attempt to influence decisions and actions (90). Stakeholders include all of the individuals and groups that will be directly or indirectly affected by the change or solution to the problem.

**Support network:** A term used to refer to those identified by a person as being significant in their life. This can include individuals who are related to the person (biologically, emotionally or legally) and/or those with close bonds (friendships, commitments, shared household and child-rearing responsibilities, and romantic attachments) (91).

**Systematic review:** A comprehensive review of the literature that uses clearly formulated questions and systematic and explicit methods to identify, select and critically appraise relevant research. A systematic review collects and analyzes data from the included studies and presents them, sometimes using statistical methods (83).  
*See meta-analysis*

**Toileting strategies:** In this BPG, a toileting strategy refers to a type of behavioural therapy and support aimed at improving bladder control.

**Urinary incontinence:** The involuntary leakage of urine caused by physiological, mechanical and medical factors, including (but not limited to): weak pelvic muscles, diabetes, certain medications, constipation and bladder infection (6, 8).

The most common types of urinary incontinence are listed and defined below:

**Stress incontinence:** The involuntary loss of urine due to a sudden increase in intra-abdominal pressure via physical exertion, including coughing, sneezing, laughing, rising from a chair, lifting items or exercise (6, 8).

**Urgency incontinence:** The involuntary loss of urine that occurs when there is a sudden, compelling urge to urinate and the bladder contracts and empties in an involuntary fashion (6, 8).

**Mixed incontinence:** The involuntary loss of urine associated with urgency and physical exertion (e.g., coughing or sneezing) (6).

**Functional incontinence:** A type of urinary incontinence that occurs in instances where someone has normal urine control but may have trouble getting to the bathroom in time because they live with conditions that make it difficult for them to move around (such as decreased mobility). It may also be referred to as “disability incontinence” (6, 8).

## Appendix B: RNAO Best Practice Guidelines and Resources That Align with This Best Practice Guideline

The following are some topics and suggested Registered Nurses' Association of Ontario (RNAO) guidelines and resources from other organizations that align with this best practice guideline (BPG).

TOPIC	RESOURCE(S)
<b>Client-centred learning</b>	<ul style="list-style-type: none"> <li>Registered Nurses' Association of Ontario (RNAO). Facilitating client centred learning [Internet]. Toronto (ON): RNAO; 2012. Available from: <a href="https://RNAO.ca/sites/rnao-ca/files/BPG_CCL_2012_FA.pdf">https://RNAO.ca/sites/rnao-ca/files/BPG_CCL_2012_FA.pdf</a></li> </ul>
<b>Implementation science, implementation frameworks and resources</b>	<ul style="list-style-type: none"> <li>Registered Nurses' Association of Ontario (RNAO). Toolkit: implementation of best practice guidelines [Internet]. 2nd ed. Toronto (ON): RNAO; 2012. Available from: <a href="https://RNAO.ca/bpg/resources/toolkit-implementation-best-practice-guidelines-second-edition">https://RNAO.ca/bpg/resources/toolkit-implementation-best-practice-guidelines-second-edition</a></li> <li>The National Implementation Research Network's Active Implementation Hub. Get Started [Internet]. [place unknown]: AI Hub; c2013–2018. Available from: <a href="http://implementation.fpg.unc.edu/">http://implementation.fpg.unc.edu/</a></li> <li>Canadian Patient Safety Institute. Improvement frameworks: getting started kit [Internet]. [place unknown]: safer healthcare now!; 2015 Aug. Available from: <a href="http://www.patientsafetyinstitute.ca/en/toolsResources/ImprovementFramework/Documents/Improvement%20Frameworks%20GSK%20EN.PDF">http://www.patientsafetyinstitute.ca/en/toolsResources/ImprovementFramework/Documents/Improvement%20Frameworks%20GSK%20EN.PDF</a></li> <li>Dissemination &amp; Implementation Models in Health Research &amp; Practice [Internet]. [place unknown]: The Center for Research in Implementation Science and Prevention; [date unknown]. Available from: <a href="http://dissemination-implementation.org/content/resources.aspx">http://dissemination-implementation.org/content/resources.aspx</a></li> </ul>
<b>Interprofessional collaboration</b>	<ul style="list-style-type: none"> <li>Registered Nurses' Association of Ontario (RNAO). Developing and sustaining interprofessional health care: optimizing patients/clients, organizational, and system outcomes [Internet]. Toronto (ON): RNAO; 2013. Available from: <a href="https://RNAO.ca/bpg/guidelines/interprofessional-team-work-healthcare">https://RNAO.ca/bpg/guidelines/interprofessional-team-work-healthcare</a></li> </ul>
<b>Person- and family-centred care</b>	<ul style="list-style-type: none"> <li>Registered Nurses' Association of Ontario (RNAO). Person- and family-centred care [Internet]. Toronto (ON): RNAO; 2015. Available from: <a href="https://RNAO.ca/bpg/guidelines/person-and-family-centred-care">https://RNAO.ca/bpg/guidelines/person-and-family-centred-care</a></li> </ul>
<b>Falls</b>	<ul style="list-style-type: none"> <li>Registered Nurses' Association of Ontario (RNAO). Preventing falls and reducing injury from falls [Internet]. Toronto (ON): RNAO; 2017. Available from: <a href="https://rnao.ca/bpg/guidelines/prevention-falls-and-fall-injuries">https://rnao.ca/bpg/guidelines/prevention-falls-and-fall-injuries</a></li> </ul>

# Appendix C: Education Statements

## Education Statements for This Guideline

The RNAO has been at the forefront of creating BPGs since 1999, with its first guidelines issued in 2001. From the outset, RNAO recognized the importance of individual and organizational approaches to the delivery of education on clinical BPG content to support evidence-based practice changes. As such, RNAO clinical BPGs included education recommendations for those responsible for the academic and in-service education of nursing students, nurses and the interprofessional team. These recommendations outlined core content and training strategies required for entry-level health programs, continued education and professional development.

An in-depth analysis of RNAO’s educational recommendations was conducted in 2018. It included clinical BPGs published within a five-year time frame, as all clinical BPGs published within this period are based on a systematic review of the literature. It examined 26 education recommendations from nine different guidelines with diverse clinical topics and populations.

A rigorous thematic analysis showed similarities across BPGs. Thus, it was deemed appropriate to create standard **education statements**<sup>G</sup> that would be applicable to all clinical BPGs to support evidence-based practice changes. The resultant two education statements and the associated discussion of the literature are described below. These statements can be contextually adapted within health-service organizations and academic institutions to support the implementation of clinical recommendations for various guideline topic areas.

### EDUCATION STATEMENT 1: ACADEMIC INSTITUTIONS INTEGRATE EVIDENCE-BASED GUIDELINES INTO CURRICULA FOR PRE- AND POST-LICENSURE NURSES AND OTHER REGULATED HEALTH PROVIDERS

#### Discussion of Literature:

The thematic analysis of RNAO’s education recommendation statements found a particular theme to be foundational to evidence-based practice capacity-building:

Academic institutions integrate evidence-based guidelines into curricula for pre- and post-licensure nurses and other regulated health providers.

The following BPGs were analyzed:

- *Assessment and Management of Pain, Third Edition (2013).*
- *Care Transitions (2014).*
- *Person- and Family-centred Care (2015).*
- *Engaging Clients Who Use Substances (2015).*
- *Preventing and Addressing Abuse and Neglect of Older Adults: Person-centred, Collaborative, System-wide Approaches (2014).*
- *Primary Prevention of Childhood Obesity, Second Edition (2014).*
- *Delirium, Dementia and Depression in Older Adults: Assessment and Care, Second Edition (2016).*
- *Working with Families to Promote Safe Sleep in Infants 0–12 Months of Age (2014).*

Academic institutions should consider integrating guideline content into theoretical and practice-based courses for nurses and other regulated health providers, including social workers, physiotherapists, occupational therapists, dieticians and pharmacists in pre-licensure (e.g., diploma and undergraduate) and post-licensure (e.g., graduate) programs. Pre-licensure education establishes foundational knowledge that can be strengthened and augmented, as necessary, within health-service organizations. Post-licensure education at the graduate level may include preparing nurses and other regulated health providers for advanced practice roles and functions within clinical practice, education, administration, research and policy (92). As such, the integration of guideline content into curricula will differ in terms of educational content and complexity based on the overall educational objectives of the program. In both cases, integrating guideline content into curricula supports student learning that is consistent with evidence-based practices, with the ultimate goal of enhancing the health outcomes of persons and families.

To support the integration of evidence-based guidelines into curricula, the following two approaches may be utilized: (1) developing multilevel guideline-related learning objectives; and (2) designing guideline-related teaching and learning strategies. Both approaches are outlined below.

**1. Developing multilevel guideline-related learning objectives:** Guideline-related learning objectives at multiple levels of a program (pre-licensure and post-licensure) facilitate integration of guideline content into curricula.

- At the program level, such integration broadens student knowledge, attitude, judgment and skill. For instance, a program-level outcome at a graduate level may include student awareness of elements of implementation science to support uptake and sustained use of guidelines in clinical settings (93).
- At the course level, integration of guideline content supports student learning that is consistent with evidence-based practices within academic and practice settings. For example, course-level outcomes at the undergraduate level may include students being able to gain increased knowledge about guidelines, select guidelines relevant to practice (and provide rationale for their selection), and integrate guideline recommendations into plans of care for persons and families (93).

**2. Designing guideline-related teaching and learning strategies:** Teaching strategies should be tailored to address the program-level educational objectives and needs of learners, and to equip the learner to improve practice and promote positive outcomes (94). The various guideline-related teaching and learning strategies are outlined below.

- **Lectures:** Educators can use lectures as a means of providing a broad understanding of guidelines, specifically the rigorous process of developing guidelines and their various recommendations. Lectures can provide students with an understanding of the scope and strength of evidence that inform the recommendations (93).

- **Interactive classroom activities:** Interactive learning activities within the classroom setting can support students to obtain additional information, participate in problem-solving and articulate knowledge gained. Examples include: assigning group work to help students learn how to navigate a guideline and become familiar with its recommendations; using case studies to provide students with opportunities to identify and apply guideline recommendations in care plans; and using videos and role playing to promote skills in articulating the rationale for selecting specific guidelines/recommendations in care plans (93).
- **Simulation:** High-quality digital simulation within skills lab settings can ease the uncertainty of students related to clinical practice; it can also increase skill acquisition, self-confidence and satisfaction. Faculty trained in pedagogy can use simulation to teach students content related to safe and effective person and family centred care within a standardized clinical environment. Educators can also support students to incorporate guideline content into simulated practice sessions when teaching evidence-based practice (93).
- **Pre- and post-clinical conference discussions:** Focusing on a guideline at pre- and post-clinical conference discussions can support the critical thinking of students when they develop care plans, consider modifications based on guideline recommendations, articulate rationale for clinical decisions and evaluate the outcome of interventions. Students have the opportunity to evaluate if policies and procedures within the practice setting align with best evidence, and they can identify potential areas for practice change and consider how to initiate change (93).
- **Access to BPG-related resources:** Educators can promote and facilitate access to BPG-related links and resources. For example, providing access to the RNAO Nursing Best Practice Guidelines App (see <https://RNAO.ca/bpg/pda/app>) enables students to access content from BPGs within classroom and practice settings (93).
- **Assignments and tests:** Students may be asked to incorporate guidelines into their learning plans or to write a reflective journal related to a guideline that is important to their area of practice. Tests or exam questions that demonstrate critical thinking related to guidelines can also be used. Overall, guideline-related assignments and tests can assist students to reflect upon guidelines, understand their application and critique them (93).
- **Preceptorship or mentorship in clinical placements:** Preceptors within clinical settings play an integral role in teaching practical skills that complement the theoretical learning of students. Preceptors are responsible for providing clinical teaching and supervision, and they perform formal student evaluation. Preceptors can support students to integrate guideline content into their learning objectives and clinical activities to promote evidence-based knowledge and practice.

## EDUCATION STATEMENT 2: HEALTH-SERVICE ORGANIZATIONS USE STRATEGIES TO INTEGRATE EVIDENCE-BASED GUIDELINES INTO THE EDUCATION AND TRAINING FOR NURSES AND OTHER HEALTH PROVIDERS

### Discussion of Literature:

The thematic analysis of the education recommendation statements in a number of BPGs found a second theme to be foundational to evidence-based practice capacity-building:

Health-service organizations use strategies to integrate evidence-based guidelines into the education and training for nurses and other health providers.

The following BPGs were analyzed:

- *Assessment and Management of Pain, Third Edition (2013).*
- *Care Transitions (2014).*
- *Person- and Family-centred Care (2015).*
- *Engaging Clients Who Use Substances (2015).*
- *Preventing and Addressing Abuse and Neglect of Older Adults: Person-centred, Collaborative, System-wide Approaches (2014).*
- *Primary Prevention of Childhood Obesity, Second Edition (2014).*
- *Delirium, Dementia and Depression in Older Adults: Assessment and Care, Second Edition (2016).*
- *Working with Families to Promote Safe Sleep in Infants 0–12 Months of Age (2014).*

Nurses and other health providers should continually seek new knowledge, identify opportunities for professional growth and pursue ongoing learning throughout their careers. Participation in education and training ensures congruence with evidence-based practices, enhances competence and improves care quality and individual outcomes (95). Integrating guideline content into education and training programs within health-service organizations can improve evidence-based knowledge and skills for post-licensure nurses and other health providers.

Education and training programs should be based on the principles of adult learning, including the following:

- Adults have an awareness of learning needs/goals.
- Adults are self-directed and autonomous.
- Adults value and utilize prior life experiences.
- Adults have a readiness to learn.
- Adults are motivated to learn.
- Adults are presented knowledge and skills in the context of practical, real-life situations (96)

Furthermore, education and training should be appropriate to the health provider’s scope of practice and their defined role. Education and training strategies may include the following:

- **In-service education sessions:** In-service education sessions can be planned by clinical experts within practice settings to support the utilization of a specific guideline or set of recommendations to stimulate evidence-based practice among staff. The education may include one-on-one or group sessions, and it should address the needs of learners. It is recommended that the education sessions are followed with refresher or booster sessions to provide feedback and enhance staff learning (97, 98).
- **Workshops/seminars:** Highly interactive workshops/seminars help nurses and health providers maintain practice that is based on best evidence when they incorporate a variety of teaching–learning strategies, including pre-circulated materials, small group discussions using case studies, and multimedia (such as Power Point and videos that integrate relevant guidelines/recommendations). RNAO’s Best Practice Champions Workshop and BPG Learning Institutes are examples of programs that provide education on how to implement BPGs within practice settings (99).
- **Quality improvement:** Participating in quality improvement within workplace settings can support nurses and health workers to recognize sentinel events and examine ways to improve care. Meeting accreditation standards is an important quality improvement activity that bridges gaps between current and best practices and supports continued competence. Examples of strategies that nurses and other health providers can use to meet accreditation standards include the following:
  - participating in a unit-based guideline implementation process to promote patient safety, reduce risks and improve care outcomes;
  - choosing guideline-specific recommendations to facilitate practice change; and
  - sharing knowledge and lessons learned from reviewing guidelines with the accreditation committee (100, 101).

Additional quality improvement opportunities include participating in incident reporting, patient safety initiatives and other health initiatives within areas of practice.

- **Post-licensure mentorship:** Post-licensure mentorship involves providing new graduates or less experienced staff with guidance for skill development and support for growth of professional roles. Research suggests that working with mentors reduces stress and improves satisfaction for new staff during the transition process (102). Mentors can support integration of guideline content while teaching evidence-based practice.

## EVALUATION

All educational strategies require evaluation to: (a) monitor the adoption of knowledge; and (b) measure the impact on clinical outcomes. RNAO has developed the *Educator's Resource: Integration of Best Practice Guidelines* (2005) (103) to provide strategies for educators within academia and practice settings to introduce BPGs to student nurses, faculty, nurses and other health providers. The resource provides guidance on student evaluation strategies that include self-evaluation, peer-evaluation and end-of-course evaluations by the educator.

RNAO has also developed the *Practice Education in Nursing* (2016) (104) BPG to provide evidence-based recommendations that support the application of knowledge to various practice settings by student nurses. The guideline also assists nurses, nurse educators, preceptors and other members of the interprofessional team to understand the effective use of teaching–learning strategies in clinical settings.

The RNAO 2012 *Toolkit: Implementation of Best Practice Guidelines, Second Edition*\* (18) identifies the following strategies for evaluating provider practice change and health outcomes for persons within health-service organizations:

- pre- and post-tests for staff educational sessions;
- staff focus groups/interviews;
- observation of patient–provider encounters;
- chart audits to determine the impact on person and family outcomes; and
- person and family satisfaction surveys or interviews.

\* The RNAO *Toolkit: Implementation of Best Practice Guidelines, Second Edition* is under review. The next edition is expected to be issued in 2021.

# Appendix D: Best Practice Guideline Development Methods

This appendix presents an overview of the RNAO guideline development process and methods. RNAO is unwavering in its commitment that every BPG be based on the best available evidence. The Grading of Recommendations Assessment, Development and Evaluation (GRADE) and the Confidence in the Evidence from Reviews of Qualitative Research (CERQual) methods have been implemented to provide a rigorous framework and meet international standards for guideline development.

## Scoping the Guideline

The scope sets out what an RNAO guideline will and will not cover (see Purpose and Scope). To determine the scope of this particular BPG, the RNAO best practice guideline development and research team conducted the following steps:

1. **A review of previous BPGs.** The RNAO BPGs *Promoting Continence Using Prompted Voiding (2)* and *Prevention of Constipation in the Older Adult Population (3)* were reviewed to inform the purpose and scope of this BPG.
2. **A guideline search and gap analysis.** Two guideline development methodologists searched an established list of websites for guidelines and other relevant content published between January 2013 and August 2018. The purpose of the guideline search and gap analysis was to gain an understanding of existing guidelines on urinary incontinence, fecal incontinence and constipation in order to identify opportunities to develop the purpose and scope of this BPG. The resulting list was compiled based on knowledge of evidence-based practice websites and recommendations from the literature. Expert panel members were asked to suggest additional guidelines (see [Appendix E](#)). Detailed information about the search strategy for existing guidelines, including the list of websites searched and the inclusion criteria used, is available at <https://RNAO.ca>.

The guidelines were reviewed for content, applicability to nursing scope of practice, accessibility and quality. The two guideline development methodologists appraised four international guidelines using the AGREE II tool (105). Guidelines with an overall score of 6 or 7 (on a 7-point Likert scale) were considered to be of high quality. Systematic reviews that answered research questions in high-quality guidelines were considered for GRADE-ADOLOPMENT (13). GRADE-ADOLOPMENT provides a framework for adopting or adapting trustworthy recommendations from existing guidelines in this BPG (13).

The following guidelines were appraised as indicated:

- Abrams P, Cardozo L, Wagg A, et al., editors. *Incontinence* [Internet]. 6th ed. Bristol (UK): ICI Books; 2017. Available from: [https://www.ics.org/publications/ici\\_6/Incontinence\\_6th\\_Edition\\_2017\\_eBook\\_v2.pdf](https://www.ics.org/publications/ici_6/Incontinence_6th_Edition_2017_eBook_v2.pdf)
  - (Score: 4 out of 7. This resource was used to support the good practice statements in this BPG.)
- European Association of Urology (EAU). *EAU Guidelines on urinary incontinence in adults* [Internet]. Arnhem (NL): EAU; 2016. Available from: <https://uroweb.org/wp-content/uploads/EAU-Guidelines-Urinary-Incontinence-2016.pdf>.
  - (Score: 3 out of 7. This guideline was not used in this BPG).

- National Institute for Health and Care Excellence (NICE). Urinary incontinence in women: the management of urinary incontinence in women [Internet]. London (UK): National Collaborating Centre for Women’s and Children’s Health; 2013. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK247723/>
    - (Score: 6 out of 7. This guideline was updated in June 2019. The updated guideline was also appraised [see below]).
  - National Institute for Health and Care Excellence (NICE). Urinary incontinence and pelvic organ prolapse in women: management [Internet]. London (UK): NICE; 2019 Apr 2 [updated 2019 Jun 24]. Available from: <https://www.nice.org.uk/guidance/ng123/chapter/Recommendations#non-surgical-management-of-urinary-incontinence>
    - (Score: 6 out 7. A recommendation from this guideline was adopted in this BPG).
  - Qaseem A, Dallas P, Forcica MA, et al. Nonsurgical management of urinary incontinence in women: a clinical practice guideline from the American College of Physicians. *Ann Intern Med.* 2014;161(6):429-40.
    - (Score: 4 out of 7. This guideline was not used in this BPG).
3. **Telephone key informant interviews.** Eleven such interviews were conducted with experts in the field—including direct care health providers, nurse researchers and patient advocates—to understand the needs of nurses, members of the interprofessional health team and persons with lived experience.
4. **Telephone discussion group sessions.** Two sessions were convened to understand the needs of nurses, members of the interprofessional health team and persons with lived experience.

### Assembly of the Expert Panel

RNAO aims for diversity in membership of an expert panel; this is in alignment with its Organizational Statement on Diversity and Inclusivity, which is part of the RNAO Mission and Values (106). RNAO also aims for persons impacted by BPG recommendations, especially persons with lived experience and support networks, to be included as expert panel members.

There are numerous ways in which RNAO finds and selects members of an expert panel. This includes:

- searching the literature for researchers in the topic area;
- soliciting recommendations from key informant interviews;
- drawing from established professional networks, such as RNAO interest groups, the Nursing Best Practice Champions Network<sup>®</sup> and Best Practice Spotlight Organizations<sup>®</sup> (BPSOs<sup>®</sup>), and other nursing and health provider associations, topic-relevant technical associations or organizations, and advocacy bodies.

For this BPG, the RNAO best practice guideline development and research team assembled a panel of experts from nursing practice, research and education, as well as other members of the interprofessional team representing a range of sectors and practice areas. Persons with lived experiences and patient advocates were also included in the expert panel (see the **RNAO Expert Panel**).

The expert panel engaged in the following activities:

- approved the purpose and scope of this BPG;
- determined the recommendation questions and outcomes to be addressed in this BPG;
- participated in a **consensus**<sup>G</sup> development process to finalize recommendation statements;
- provided feedback on the draft of this BPG;
- participated in the development of evaluation indicators;
- helped develop BPG Order Sets; and
- identified appropriate stakeholders to review the draft guideline prior to publication.

In addition to the above, the expert panel co-chairs also participated in the following activities:

- engaged in monthly meetings with the guideline development methodologists and guideline development project coordinator;
- facilitated expert panel meetings;
- provided in-depth guidance on clinical and/or research issues; and
- moderated voting processes.

### Conflict of Interest

In the context of RNAO BPG development, the term “conflict of interest” (COI) refers to situations in which an expert panel member’s financial, professional, intellectual, personal, organizational or other relationships may compromise their ability to conduct panel work independently. Declarations of COI that might be construed as constituting a perceived and/or actual conflict were made by all members of the RNAO expert panel prior to their participation in guideline development work using a standard form. Expert panel members also updated their COI at the beginning of each guideline meeting and prior to guideline publication. Any COI declared by an expert panel member was reviewed by both the RNAO best practice guideline development and research team and expert panel co-chairs. No limiting conflicts were identified. See “Declarations of Conflicts of Interest Summary” at <https://rnao.ca/bpg/guidelines/proactive-approach-bladder-and-bowel-management-adults>.

### Identifying Priority Recommendation Questions and Outcomes

RNAO systematic review questions are developed in accordance with the PICO format (population, intervention, comparison and outcomes).

In September 2018, the RNAO Best Practice Guideline Development and Research Team and the expert panel convened in-person to determine the priority recommendation questions and outcomes for this BPG. A comprehensive list of recommendation questions that the BPG could potentially address was developed at the in-person meeting, informed by:

- the guideline gap analysis;
- key informant interviews and discussion groups; and
- expert panel discussion at the in-person meeting.

This comprehensive list of potential recommendation questions was presented to the expert panel for a vote. Each expert panel member was allowed five votes for preferred recommendation questions. The five recommendation questions with the most votes were deemed to be the final recommendation questions. Expert panel co-chairs did not participate in the vote.

Following this initial vote—and in alignment with GRADE standards for assessing and presenting the evidence—outcomes were identified and prioritized per recommendation question. A comprehensive list of outcomes per recommendation question was developed at the in-person meeting, informed by key informant interviews, discussion groups and expert panel discussion.

Based on the comprehensive list of outcomes, the expert panel was asked to rank order the relative importance of each outcome per recommendation question. Each panel member participated in a confidential online rank order vote. It was deemed feasible to have a total of 20 prioritized outcomes across the five recommendation questions. Expert panel co-chairs did not participate in the vote because they functioned as co-facilitators.

Voting results were presented to the expert panel, and priority outcomes were determined per recommendation question through a facilitated discussion. The five original recommendation questions and their respective PICO research questions are presented below.

### Original Recommendation Questions

**Recommendation Question #1:** Should incontinence education with implementation follow-up be recommended to improve outcomes in persons living with urinary incontinence, fecal incontinence and/or constipation?

**PICO Research Question #1**

**Population:** Informal and formal care providers.

**Intervention:** Education with implementation follow-up.

**Comparison:** Only education.

**Outcomes:** Increased use of toileting strategies, provider (formal and informal) awareness and knowledge, episodes of incontinence, quality of life and adverse events.

**Recommendation Question #2:** Should toileting strategies be recommended to improve outcomes in persons living with urinary incontinence and/or fecal incontinence?

**PICO Research Question #2**

**Population:** Persons living with urinary incontinence and/or fecal incontinence.

**Intervention:** Toileting strategies.

**Comparison:** No toileting strategies.

**Outcomes:** Episodes of incontinence, quality of life, use of incontinence products and caregiver burden.\*

**Recommendation Question #3:** Should standardized screening questions be recommended to improve outcomes in persons living with urinary incontinence, fecal incontinence and/or constipation?

**PICO Research Question #3**

**Population:** Persons living with urinary incontinence, fecal incontinence and/or constipation.

**Intervention:** Standardized screening questions.

**Comparison:** No standardized screening questions.

**Outcomes:** Identification of persons living with incontinence, appropriate referral, education/resources for patients, patient satisfaction and increased patient engagement.

**Recommendation Question #4:** Should exercise or movement be recommended to improve outcomes in persons living with urinary incontinence, fecal incontinence and/or constipation?

**PICO Research Question #4**

**Population:** Persons living with urinary incontinence, fecal incontinence and/or constipation.

**Intervention:** Exercise or movement.

**Comparison:** No exercise or movement.

**Outcomes:** Episodes of incontinence, quality of life, measures of mobility\*, falls\* and constipation.

**Recommendation Question #5:** Should de-prescribing drugs affecting bladder and bowel function be recommended to improve outcomes in persons living with urinary incontinence, fecal incontinence and/or constipation?

**PICO Research Question #5**

**Population:** Persons living with urinary incontinence, fecal incontinence and/or constipation.

**Intervention:** De-prescribing drugs affecting bladder and bowel function.

**Comparison:** No de-prescribing drugs affecting bladder and bowel function.

**Outcomes:** Medication side effects, episodes of incontinence, quality of life and falls.

### Revisions to the Original Recommendation Questions and Outcomes

Test searches were completed for all recommendation questions. However, no literature was identified that could answer original Recommendation Questions 1, 3 and 5. Two strategies were used to find alternate recommendation questions. First, the expert panel had prioritized a sixth recommendation question and respective outcomes on adequate *intake of fibre and/or fluids*; this question was brought forward. Second—in consultation with the associate director of guideline development and research and the expert panel co-chairs—the previous edition BPGs *Promoting Continence Using Prompted Voiding* and *Prevention of Constipation in the Older Adult Population* were mapped for gaps in the recommendations. Two areas of recommendations found to be addressed in the previous editions but not in the current edition were *interdisciplinary approach* and *organizational bowel protocols* (2, 3)

To fulfill the recommendation gaps, recommendation questions on *interdisciplinary approach* and *organizational bowel protocol* were selected. These recommendation questions were also reviewed by the long-term care best practices program senior manager as these guidelines are implemented within long-term care settings. Furthermore, in consultation with the expert panel co-chairs, outcomes that were prominent in the included studies were selected for these questions.

- \* For the original Recommendation Question #2, the *caregiver burden* outcome was not found in the literature. A surrogate outcome was not chosen, because there were deemed to be enough outcomes for the question. This outcome was identified as a gap that future research may explore.
- \* For the original Recommendation Question #4, the outcomes *measures of mobility* and *falls* were not found in the literature. As a result, *physical limitations* was chosen as a surrogate outcome for *falls* after consultation with the expert panel co-chairs. A surrogate outcome was not chosen to replace *measures of mobility*, as there were deemed to be enough outcomes for the question. This outcome was identified as a gap that future research may explore.

Finally, it was decided by the expert panel that the target population of interest should be separated into two categories: *persons living with urinary incontinence* and *persons living with fecal incontinence and/or constipation*. All recommendation questions were revised to be specific to the conditions, based on evidence found in the included studies. This revision yielded seven recommendation questions. The seven revised recommendation questions and their respective PICO research questions are presented below.

### Revised Recommendation Questions for Urinary Incontinence

**Recommendation Question #1:** Should toileting strategies be recommended to improve outcomes in persons living with urinary incontinence?

**PICO Research Question #1**

**Population:** Persons living with urinary incontinence.

**Intervention:** Toileting strategies.

**Comparison:** No toileting strategies.

**Outcomes:** Episodes of incontinence, quality of life and use of incontinence products.

**Recommendation Question #2:** Should physical activity be recommended to improve outcomes in persons living with urinary incontinence?

**PICO Research Question #2**

**Population:** Persons living with urinary incontinence.

**Intervention:** Physical activity.

**Comparison:** No physical activity.

**Outcomes:** Episodes of incontinence and physical limitations.

**Recommendation Question #3:** Should an interprofessional approach be recommended to improve outcomes in persons living with urinary incontinence?

**PICO Research Question #3**

**Population:** Persons living with urinary incontinence.

**Intervention:** Interprofessional approach.

**Comparison:** No interprofessional approach.

**Outcomes:** Patient satisfaction and episodes of incontinence.

### Revised Recommendation Questions for Fecal Incontinence and/or Constipation

**Recommendation Question #4:** Should physical activity be recommended to improve outcomes in persons living with fecal incontinence and/or constipation?

**PICO Research Question #4**

**Population:** Persons living with fecal incontinence and/or constipation.

**Intervention:** Physical activity.

**Comparison:** No physical activity.

**Outcomes:** Episodes of incontinence, constipation and quality of life.

**Recommendation Question #5:** Should adequate intake of fibre and/or fluids be recommended to improve outcomes in persons living with fecal incontinence and/or constipation?

**PICO Research Question #5**

**Population:** Persons living with fecal incontinence and/or constipation.

**Intervention:** Adequate intake of fibre and/or fluids.

**Comparison:** No adequate intake of fibre and/or fluids.

**Outcomes:** Frequency of bowel movements, stool consistency, laxative use, episodes of incontinence and quality of life.

**Recommendation Question #6:** Should an interprofessional approach be recommended to improve outcomes in persons living with fecal incontinence and/or constipation?

**PICO Research Question #6**

**Population:** Persons living with fecal incontinence and/or constipation.

**Intervention:** Interprofessional approach.

**Comparison:** No interprofessional approach.

**Outcomes:** Quality of life, access to care, patient satisfaction, episodes of incontinence and constipation.

**Recommendation Question #7:** Should a bowel protocol be recommended to improve outcomes in persons living with fecal incontinence and/or constipation?

**PICO Research Question #7**

**Population:** Persons living with fecal incontinence and/or constipation.

**Intervention:** Bowel protocol.

**Comparison:** No bowel protocol.

**Outcomes:** Constipation and laxative use.

## Systematic Retrieval of the Evidence

RNAO BPGs are based on a comprehensive and systematic review of the literature.

For this BPG, a search strategy was developed by RNAO's best practice guideline development and research team and a health sciences librarian for each of the aforementioned research questions. A search for relevant research studies published in English between January 2013 and December 2018 was applied to the following databases: Cumulative Index to Nursing and Allied Health (CINAHL), Medline, Medline in Process, Cochrane Central, Cochrane Database of Systematic Reviews, Embase, Emcare and PsycInfo.

Systematic review search dates were limited to the last five years in order to capture the most up-to-date evidence. All study designs were included. Expert panel members were asked to review their personal libraries for key studies not found through the above search strategies (see [Appendix E](#)). Detailed information on the search strategy for the systematic reviews, including the inclusion and exclusion criteria and search terms, is available at <https://rnao.ca/bpg/guidelines/proactive-approach-bladder-and-bowel-management-adults>.

All studies were independently assessed for relevance and eligibility by two guideline development methodologists based on the inclusion and exclusion criteria. Any disagreements were resolved through consensus.

All included studies were independently assessed for risk of bias by study design using validated and reliable tools. **Randomized controlled trials**<sup>G</sup> were assessed using the Risk of Bias 2.0 tool (107), **quasi-experimental studies**<sup>G</sup> and other non-randomized studies were assessed using the ROBINS-I tool (108), systematic reviews were assessed using the ROBIS tool (109) and qualitative studies were assessed using a modified CASP qualitative checklist (110). The two guideline development methodologists reached consensus on all scores through discussion.

For data extraction, the included studies were divided equally between the guideline development methodologists. Each guideline development methodologist extracted information from their assigned studies and this was reviewed by the other guideline development methodologist for accuracy.

In April 2020, the health science librarian conducted an update search for relevant research studies that answer the research questions, published in English between December 2018 and April 2020. The search was applied to the following databases: Cumulative Index to Nursing and Allied Health (CINAHL), Medline, Medline in Process, Cochrane Central, Cochrane Database of Systematic Reviews, Embase, Emcare and PsycInfo. Results from four studies were incorporated into the discussions of evidence for **Recommendation 3.1**, **Recommendation 4.1** and **Recommendation 5.1**.

## Determining Certainty and Confidence of Evidence

### Certainty of Evidence

The certainty of quantitative evidence (i.e., the extent to which one can be confident that an estimate of an effect is true) is determined using GRADE methods (15). First, the certainty of the evidence is rated for each prioritized outcome across studies (i.e., for a body of evidence) per recommendation (15). This process begins with the study design and then requires an examination of five domains—risks of bias, inconsistency, imprecision, indirectness and publication bias—to potentially **downgrade**<sup>G</sup> the certainty of evidence for each outcome. See **Table 16** for a definition of each of these certainty criteria.

**Table 16. GRADE Certainty Criteria**

CERTAINTY CRITERIA	DEFINITION
<b>Risk of bias</b>	Limitations in the study design and execution that may bias study results. Valid and reliable quality appraisal tools are used to assess the risk of bias. First, risk of bias is examined for each individual study and then examined across all studies per defined outcome.
<b>Inconsistency</b>	Unexplained differences (heterogeneity) of results across studies. Inconsistency is assessed by exploring the magnitude of difference, and possible explanations, in the direction and size of effects reported across studies for a defined outcome.
<b>Indirectness</b>	Variability between the research and review question and context within which the recommendations would be applied (applicability). There are four sources of indirectness which are assessed: <ul style="list-style-type: none"> <li>■ differences in population</li> <li>■ differences in intervention</li> <li>■ differences in outcomes measured</li> <li>■ differences in comparators.</li> </ul>
<b>Imprecision</b>	The degree of uncertainty around the estimate of effect. This is usually related to sample size and number of events. Studies are examined for sample size, number of events and confidence intervals.
<b>Publication bias</b>	Selective publication of studies based on study results. If publication bias is strongly suspected, downgrading is considered.

Source: Reprinted from: The GRADE Working Group. Quality of evidence. In: Schunemann H, Brozek J, Guyatt G, et al., editors. Handbook for grading the quality of evidence and the strength of recommendations using the GRADE approach [Internet]. [place unknown: publisher unknown]; 2013. Table 5.1, Quality of evidence grades. Available from: <https://gdt.gradeapro.org/app/handbook/handbook.html#h.wsfvfhuxv4r>. Reprinted with permission.

Following the initial consideration for rating down the certainty of quantitative evidence, three factors are assessed that can potentially enable rating up the certainty of evidence for observational studies:

1. **Large magnitude of effect:** If the body of evidence has not been rated down for any of the five criteria and a large estimate of the magnitude of intervention effect is present, there is consideration for rating up.
2. **Dose–response gradient:** If the body of evidence has not been rated down for any of the five criteria and a dose–response gradient is present, there is consideration for rating up.
3. **Effect of plausible confounding:** If the body of evidence has not been rated down for any of the five criteria and all residual confounders would result in an underestimation of treatment effect, there is consideration for rating up (15).

GRADE categorizes the overall certainty of evidence as high, moderate, low or very low. See **Table 17** for the definitions of these categories.

For this BPG, the five GRADE quality criteria for potentially downgrading quantitative evidence—and the three GRADE quality criteria for potentially rating up evidence—were independently assessed by the two guideline development methodologists. Any discrepancies were resolved through consensus. An overall certainty of evidence per recommendation was assigned based on these assessments. The certainty of evidence assigned to each recommendation was based on the certainty of prioritized outcomes in the studies that informed the recommendation.

**Table 17: Certainty of Evidence**

OVERALL CERTAINTY OF EVIDENCE	DEFINITION
<b>High</b>	We are very confident that the true effect lies close to that of the estimate of the effect.
<b>Moderate</b>	We are moderately confident in the effect estimate: the true effect is likely to be close to the estimate of the effect, but there is a possibility that it is substantially different.
<b>Low</b>	Our confidence in the effect estimate is limited: the true effect may be substantially different from the estimate of the effect.
<b>Very low</b>	We have very little confidence in the effect estimate: the true effect is likely to be substantially different from the estimate of effect.

Source: Reprinted from: The GRADE Working Group. Quality of evidence. In: Schunemann H, Brozek J, Guyatt G, et al., editors. Handbook for grading the quality of evidence and the strength of recommendations using the GRADE approach [Internet]. [place unknown: publisher unknown]; 2013. Table 5.1, Quality of evidence grades. Available from: <https://gdt.grade.pro.org/app/handbook/handbook.html#h.wsfvfhuxv4r>. Reprinted with permission.

### Confidence in Evidence

1. Similar to GRADE, there are four **CERQual criteria**<sup>G</sup> to assess the confidence in qualitative findings related to a phenomenon of interest:
2. methodological limitations,
3. relevance,
4. coherence, and
5. adequacy of data.

See **Table 18** for a definition of each of these criteria.

**Table 18: CERQual Quality Criteria**

CRITERIA	DEFINITION
<b>Methodological limitations</b>	The extent to which there are concerns about the design or conduct of the primary studies that contributed evidence to an individual review finding.
<b>Coherence</b>	An assessment of how clear and cogent the fit is between the data from the primary studies and a review finding that synthesises that data. By “cogent,” we mean well supported or compelling.
<b>Adequacy of data</b>	An overall determination of the degree of richness and quantity of data supporting a review finding.
<b>Relevance</b>	The extent to which the body of evidence from the primary studies supporting a review finding is applicable to the context (perspective or population, phenomenon of interest, setting) specified in the review question.

Source: Reprinted from: Lewin S, Booth A, Glenton C, et al. Applying GRADE-CERQUAL to qualitative evidence synthesis findings: introduction to the series. *Implement Sci.* 2018;13(Suppl 1):1-10. Table 2, Definitions of the components of the CERQual approach; p. 5. Reprinted with permission.

For qualitative findings related to two prioritized outcomes, these four criteria were independently assessed by the two guideline development methodologists. Discrepancies were resolved through consensus. An overall judgment of the confidence in each review finding was made based on these assessments. See **Table 19** for the confidence of evidence judgments. Recommendations that included qualitative evidence were assigned an overall confidence in evidence based on the corresponding review finding.

**Table 19: Confidence in Evidence**

OVERALL CONFIDENCE OF EVIDENCE	DEFINITION
<b>High</b>	It is highly likely that the finding is a reasonable representation of the phenomenon of interest.
<b>Moderate</b>	It is likely that the finding is a reasonable representation of the phenomenon of interest.
<b>Low</b>	It is possible that the review finding is a reasonable representation of the phenomenon of interest.
<b>Very low</b>	It is not clear whether the review finding is a reasonable representation of the phenomenon of interest.

Source: Reprinted from: Lewin S, Booth A, Glenton C, et al. Applying GRADE-CERQUAL to qualitative evidence synthesis findings: introduction to the series. *Implement Sci.* 2018;13(Suppl 1):1-10. Table 3, Description of level of confidence in a review finding in the CERQual approach; p. 6. Reprinted with permission.

## Formulating Recommendations

### Summarizing the Evidence

Studies were grouped according to themes based on consensus among the two guideline development methodologists for each research question. Draft recommendation statements were developed based on the themes. For each draft recommendation, GRADE and/or GRADE-CERQual evidence profiles were constructed by the two guideline development methodologists. GRADE and/or GRADE-CERQual evidence profiles are used to present decisions on determining the certainty and/or confidence of evidence, and to present general information about the body of research evidence, including key statistical or narrative results (15).

The evidence profiles for the body of quantitative studies presented the decisions made by the two guideline development methodologists on the five key GRADE certainty criteria for rating down the population included in the studies, countries where the studies were conducted, key results, and transparent judgments about the certainty underlying the evidence for each outcome (15). The evidence profiles for quantitative studies presented the relative importance of outcomes as determined by the expert panel through a confidential online vote using a 9-point Likert scale that ranged from 1 (less important) to 9 (most important). For this BPG, **meta-analyses<sup>G</sup>** were not performed; therefore, results were synthesized using narrative.

CERQual evidence profiles were created for the body of qualitative evidence for each draft recommendation, when applicable. Similar to the GRADE evidence profiles used for quantitative research, the CERQual evidence profiles presented the body of evidence supporting each theme related to the outcomes for every recommendation. These evidence profiles presented the decisions made by the two guideline development methodologists on the four key CERQual criteria and the transparent judgements about the confidence underlying the evidence for each theme.

The GRADE and CERQual evidence profiles for each recommendation, organized per outcome, can be accessed online at: <https://rnao.ca/bpg/guidelines/proactive-approach-bladder-and-bowel-management-adults>.

### Evidence-to-Decision Frameworks

**Evidence-to-Decision (EtD) frameworks<sup>G</sup>** outline proposed recommendations and summarize all necessary factors and considerations based on available evidence and expert panel judgement for formulating the recommendation statements. EtD frameworks are used to help ensure that all important factors (i.e., certainty or confidence of the evidence, benefits/harms, values and preferences, and health equity) required to formulate recommendation statements are considered by the expert panel (15). Both quantitative and qualitative evidence are incorporated into the frameworks. The guideline development methodologists draft the EtD frameworks with available evidence from the systematic reviews.

For this BPG, the EtD frameworks included the following areas of consideration for each drafted recommendation statement (see **Table 20**):

- Background information on the magnitude of the problem.
  - Includes the PICO question and general context related to the research question.
- The balance of benefits and harms of an intervention.
- Certainty and/or confidence of the evidence.
- Values and preferences.
- Health equity.

### Decision Making: Determining the Direction and Strength of Recommendations

Expert panel members are provided with the EtD frameworks to review prior to a scheduled two-day in-person meeting to determine the direction (i.e., a recommendation for or against an intervention) and the strength (i.e., strong or conditional) of a guideline's recommendations. Expert panel members are also given access to the complete evidence profiles and full-text articles.

The expert panel co-chairs and the two guideline development methodologists facilitated the in-person meeting to allow for adequate discussion for each proposed recommendation.

The decision on the direction and strength of each recommendation statement was determined by discussion and a consensus vote of at least 70 per cent of voting panel members. The voting process was anonymous and was moderated by the expert panel co-chairs and the two guideline development methodologists. In determining the strength of a recommendation statement, the expert panel was asked to consider the following (see **Table 20**):

- the balance of benefits and harms of an intervention;
- certainty and confidence of the evidence;
- values and preferences; and
- health equity.

**Table 20: Key Considerations for Determining the Strength of Recommendations**

FACTOR	DEFINITION	SOURCES
<b>Benefits and harms</b>	<p>Potential desirable and undesirable outcomes reported in the literature when the recommended practice or intervention is used.</p> <p>“The larger the difference between the desirable and undesirable effects, the higher the likelihood that a strong recommendation is warranted. The narrower the gradient, the higher the likelihood that a conditional recommendation is warranted” (111).</p>	Includes research exclusively from the systematic review.
<b>Certainty and confidence of evidence</b>	<p>The extent of confidence that the estimates of an effect are adequate to support a recommendation. The extent of confidence that a review finding is a reasonable representation of the phenomenon of interest (112).</p> <p>Recommendations are made with different levels of certainty or confidence; the higher the certainty or confidence, the higher the likelihood that a strong recommendation is warranted (111).</p>	Includes research exclusively from the systematic review.
<b>Values and preferences</b>	<p>The relative importance or worth of the health outcomes of following a particular clinical action from a person-centred perspective.</p> <p>“The more values and preferences vary or the greater the uncertainty in values and preferences, the higher the likelihood that a conditional recommendation is warranted”(111).</p>	Includes evidence from the systematic review (when available) and other sources, such as insights from the expert panel.

FACTOR	DEFINITION	SOURCES
<b>Health equity</b>	<p>Represents the potential impact of the recommended practice or intervention on health outcomes or health quality across different populations.</p> <p>The greater the potential for increasing health inequity, the higher the likelihood that a conditional recommendation is warranted (113).</p>	Includes evidence from the systematic review (when available) and other sources, such as insights from the expert panel.

Source: Adapted by the expert panel from: Schunemann H, Brozek J, Guyatt G, et al., editors. Handbook for grading the quality of evidence and the strength of recommendations using the GRADE approach [Internet]. [place unknown: publisher unknown]; 2013. Available from: <https://gdt.gradepro.org/app/handbook/handbook.html#h.svwngs6pm0f2>

### Developing Good Practice Statements

Following the in-person meeting, two good practice statements were developed by the RNAO best practice guideline development and research team to capture the need for health providers to conduct a focused initial assessment before carrying out interventions or treatment plans for persons living with urinary incontinence, fecal incontinence and/or constipation. The panel was sent a survey asking them to respond to five questions pertaining to each statement:

1. Is this statement clear and actionable?
2. Is the message really necessary in regards to actual health practice?
3. After consideration of all relevant health outcomes and potential downstream consequences, will implementing the good practice statement result in large net positive consequences?
4. Is a systematic review of the evidence necessary or required for this statement?
5. Is there a clear and explicit rationale to support this good practice statement?

Eleven out of 13 panel members completed the survey on the good practice statement for urinary incontinence. Their results are as follows:

- For the first question, 10 of 11 respondents answered “yes.”
- For the second question, all 11 respondents answered “yes.”
- For the third question, 8 of 11 respondents answered “yes.”
- For the fourth question, 9 of 11 respondents answered “no.”
- For the fifth question, 10 of 11 respondents answered “yes.”

Eleven out of 13 panel members completed the survey on the good practice statement for fecal incontinence and/or constipation. Their results are as follows:

- For the first question, 10 of 11 respondents answered “yes.”
- For the second question, all 11 respondents answered “yes.”
- For the third question, 8 of 11 respondents answered “yes.”
- For the fourth question, 8 of 10 respondents answered “no.”
- For the fifth question, 9 of 11 respondents answered “yes.”

### Adopting a Recommendation

The expert panel acknowledged that there is current guidance and substantial evidence supporting the use of pelvic floor muscle training (PFMT) among women who live with urinary incontinence. In conducting a guideline gap analysis, the guideline development methodologists identified a recent, high-quality guideline that addressed the use of PFMT among women who live with urinary incontinence. Therefore, the use of PFMT was not deemed to be a “practice gap” that required the expert panel to pose a recommendation question. However, there was an identified need to include a recommendation on PFMT, given that this BPG addresses the impact of low-intensity physical activity in persons living with urinary incontinence.

The guideline development methodologists and the expert panel came to a mutual decision to adopt a recommendation from an existing high-quality guideline: the National Institute for Health and Care Excellence (NICE) guideline, *Urinary Incontinence and Pelvic Organ Prolapse in Women: Management*, which was updated in June 2019 (14). The guideline was appraised by the two guideline development methodologists using the AGREE II tool, and it was deemed to be of high quality (with a score of 6 out of 7).

Adopting a recommendation entails using an existing, trustworthy recommendation in a way that does not change the original recommendation; it should have the same specific population, intervention and comparators, and the same certainty in the evidence rating (13). This also means that the expert panel agrees with the judgments that determine the direction and strength of the recommendation made by the original guideline developer (13). An EtD framework for the recommendation on PFMT was developed for the expert panel based on the evidence profiles published by NICE (14). The purpose of the EtD framework was to outline evidence so that the expert panel could consider criteria that influence the direction and strength of the recommendation and its implementation (13).

### Determining Supporting Resources and Appendices

Content for the supporting resources and appendices was submitted throughout the guideline development process by expert panel members and stakeholders. The two guideline development methodologists reviewed the content based on the following five criteria:

1. **Relevance:** Supporting resources and appendices should be related to the subject of the BPG or recommendation. In other words, the resource or appendix should be suitable and appropriate in relation to the purpose and scope of the BPG or the specific recommendation(s).
2. **Timeliness:** Resources should be timely and current. Resources should be published within the last 10 years or in line with current evidence.

3. **Credibility:** When assessing credibility, the trustworthiness and expertise of the source material's author or authoring organization is considered. Potential biases are also assessed, such as the presence of advertising or the affiliation of the authors with a private company selling health-care products.
4. **Quality:** This criterion assesses the accuracy of the information and the degree to which the source is evidence-informed. The assessment of quality is in relation to the subject of the resource. For example, if a tool is being suggested, is that tool reliable and/or valid?
5. **Accessibility:** This criterion considers whether the resource is freely available and accessible online.

### Drafting the Guideline

The guideline development methodologists wrote the draft of this BPG. The expert panel reviewed the draft and provided written feedback. The BPG then proceeded to external stakeholder review.

### Stakeholder Review

As part of the guideline development process, RNAO is committed to obtaining feedback from: (a) nurses and other health professionals from a wide range of practice settings and roles; (b) knowledgeable administrators and funders of health services; and (c) stakeholder associations.

Stakeholder reviewers for RNAO BPGs are identified in two ways. First, stakeholders are recruited through a public call issued on the RNAO website ([www.RNAO.ca/bpg/get-involved/stakeholder](http://www.RNAO.ca/bpg/get-involved/stakeholder)). Second, individuals and organizations with expertise in the guideline topic area are identified by the RNAO best practice guideline development and research team and the expert panel, and they are directly invited to participate in the review.

Stakeholder reviewers are individuals with subject matter expertise in the guideline topic or those who may be affected by its implementation. Reviewers may be nurses, members of the interprofessional team, nurse executives, administrators, research experts, educators, nursing students, or persons with lived experience and their family members.

Reviewers are asked to read a full draft of the BPG and participate in its review prior to its publication. Stakeholder feedback is submitted online by completing a survey questionnaire.

The stakeholders are asked the following questions about each good practice statement:

- Is this statement clear?
- Do you agree with this statement?
- Is there a clear and explicit rationale to support this good practice statement?

The stakeholders are asked the following questions about each recommendation:

- Is this recommendation clear?
- Do you agree with this recommendation?
- Is the discussion of evidence for this recommendation thorough and clear, and does the evidence support the recommendation?

In addition, the stakeholders are asked:

- Do you have any additional comments/suggestions about the background section of the guideline?
- Do you agree with the wording of the key concepts and accompanying definitions?
- Are the supporting resources and appendices included in this guideline appropriate?

With respect to the evaluation indicators, the stakeholders are asked:

- Are these indicators relevant to your practice setting?
- Do you have suggestions for other indicators and/or measures?

Survey submissions are compiled and feedback is summarized by the RNAO best practice guideline development and research team. Together with the expert panel, survey results are reviewed and considered. If necessary, BPG content and recommendations are modified prior to publication to reflect the feedback received.

For this BPG, the stakeholder review process was completed between February 10 to February 24, 2020 and diverse perspectives provided feedback (see **Stakeholder Acknowledgement**).

### Procedure for Updating This Guideline

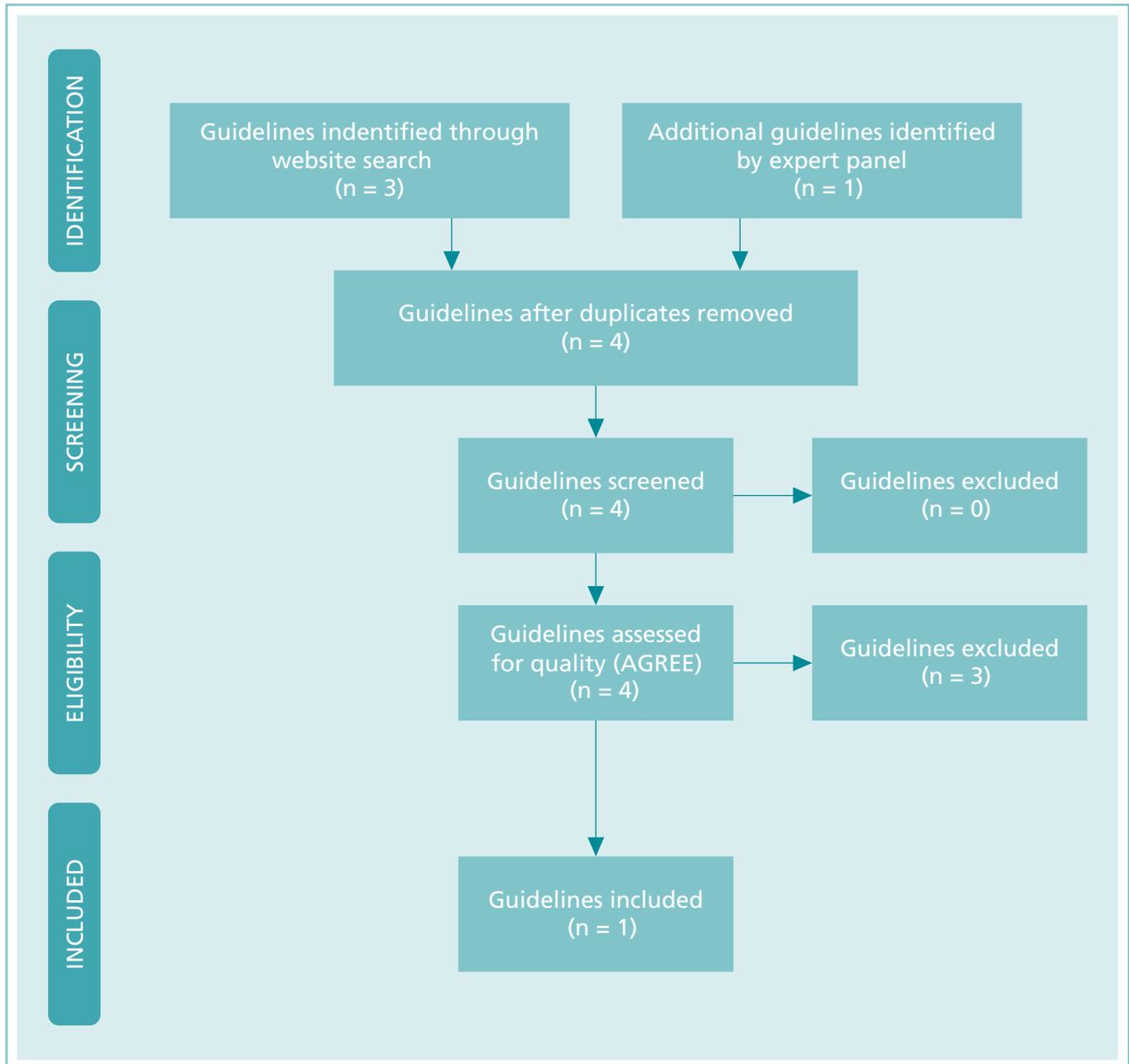
The RNAO commits to updating all BPGs, as follows:

1. Each BPG will be reviewed by a team of specialists in the topic area every five years following publication of the previous edition.
2. RNAO International Affairs and Best Practice Guidelines Centre staff regularly monitor for new systematic reviews, randomized controlled trials and other relevant literature in the field.
3. Based on that monitoring, staff may recommend an earlier revision period for a particular BPG. Appropriate consultation with members of the original expert panel and other specialists and experts in the field will help inform the decision to review and revise the BPG earlier than planned.
4. Three months prior to the review milestone, the staff commences planning of the review by doing the following:
  - a. Compiling feedback received and questions encountered during the implementation, including comments and experiences of BPSOs<sup>®</sup> and other implementation sites regarding their experiences.
  - b. Compiling a list of new clinical practice guidelines in the field and refining the purpose and scope.
  - c. Developing a detailed work plan with target dates and deliverables for developing a new edition of the BPG.
  - d. Identifying potential BPG panel co-chairs with RNAO's CEO.
  - e. Compiling a list of specialists and experts in the field for potential participation on the expert panel. The panel will be comprised of both members of the original panel and new members.
5. New editions of BPGs will be disseminated based on established structures and processes.

# Appendix E: PRISMA Diagrams for Guideline Search and Systematic Reviews

## Guideline Review

Figure 2: Guideline Review Process Flow Diagram

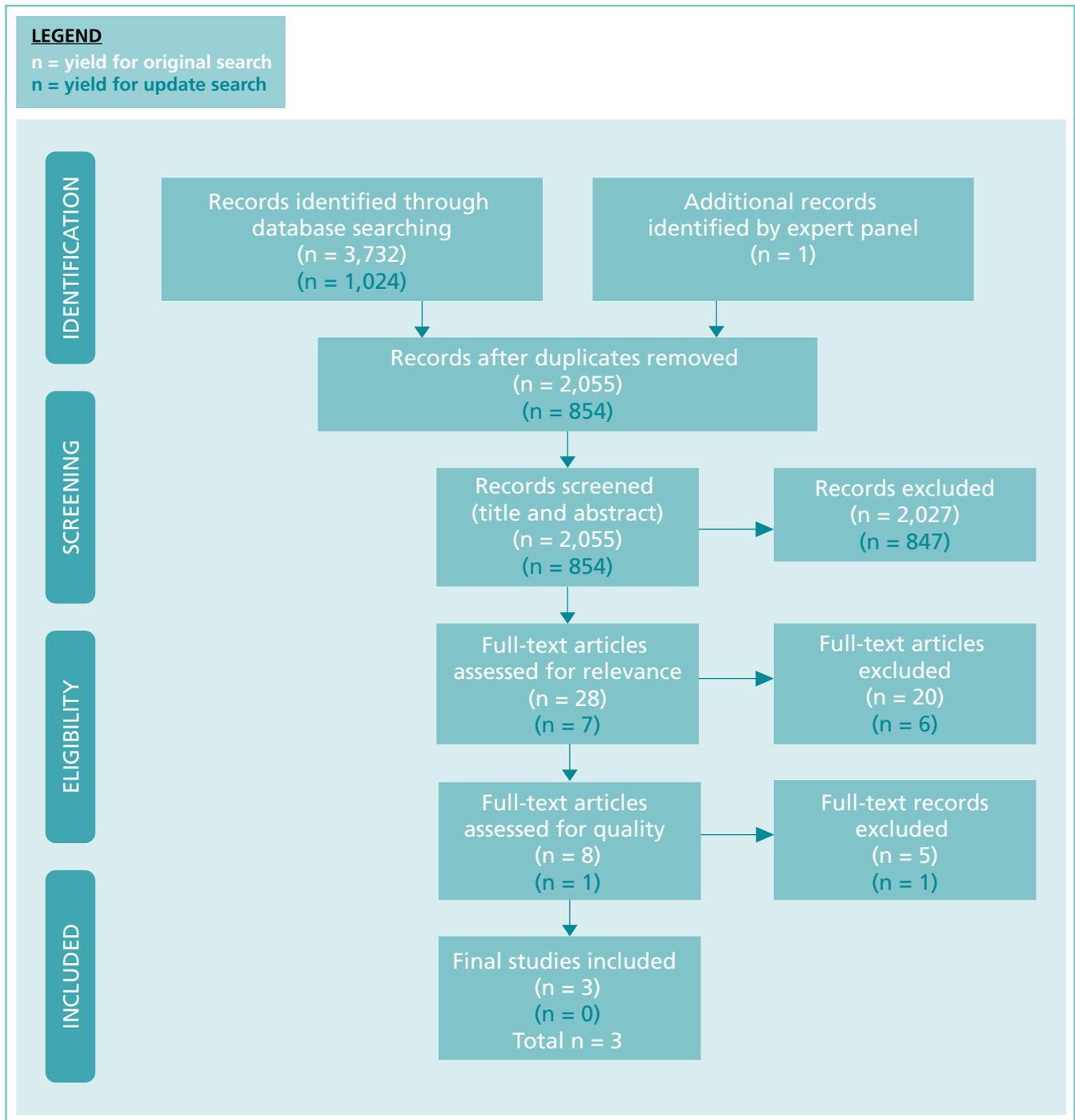


Included guidelines were considered for GRADE-ADOLOPMENT and were required to have an overall AGREE II score of 6 or more (out of 7) (13).

Source: Adapted by the expert panel from: Moher D, Liberati A, Tetzlaff J, et al. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *BMJ*. 2009;339:b2535. doi: 10.1136/bmj.b2535

**Figure 3: Article Review Process Flow Diagram for Recommendation Question #1**

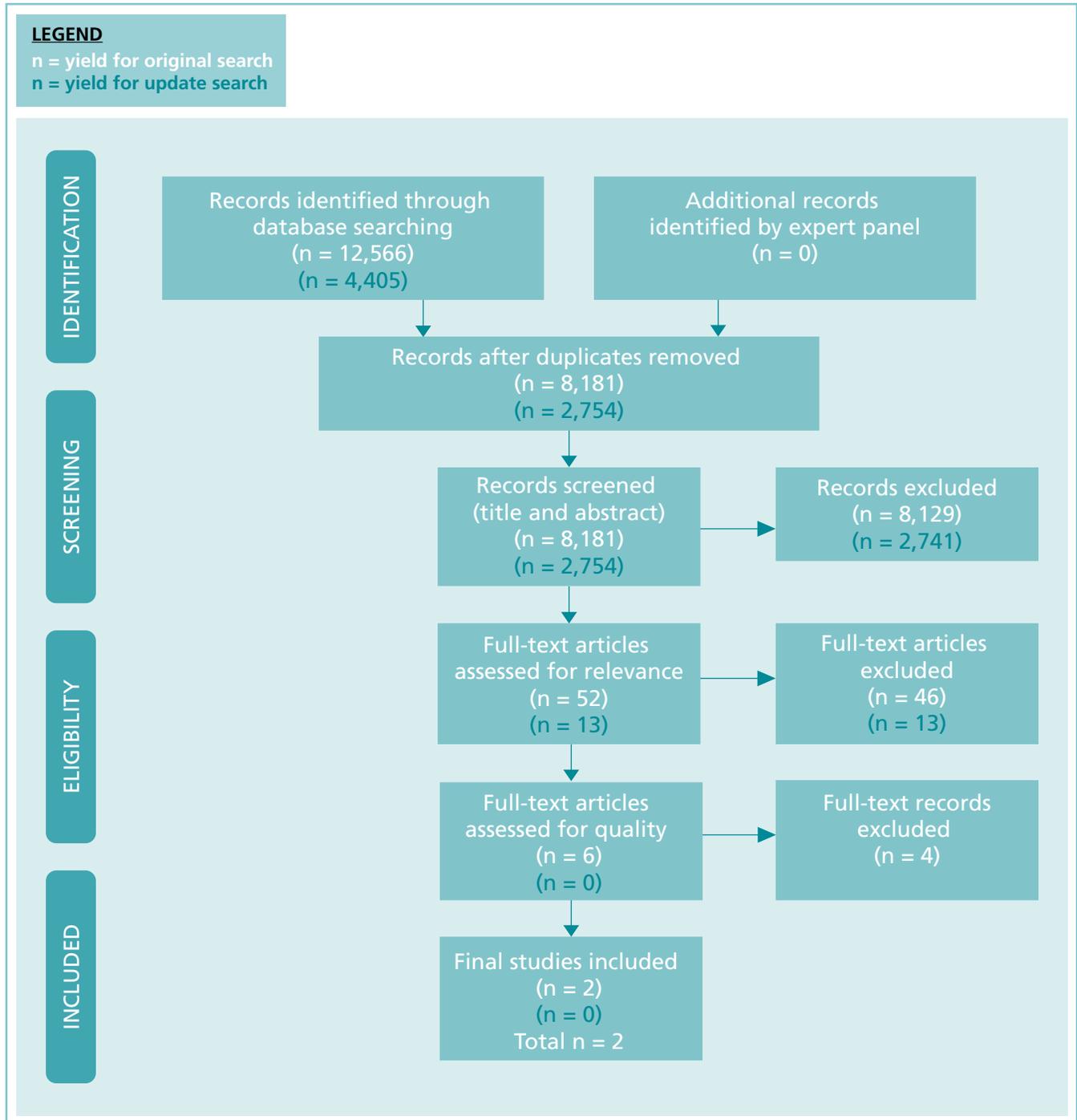
Should toileting strategies be recommended to improve outcomes in persons living with urinary incontinence?  
 Outcomes: Episodes of incontinence, quality of life and use of incontinence products.



Source: Adapted by the expert panel from: Moher D, Liberati A, Tetzlaff J, et al. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *BMJ*. 2009;339:b2535. doi: 10.1136/bmj.b2535

**Figure 4: Article Review Process Flow Diagram for Recommendation Question #2**

Should physical activity be recommended to improve outcomes in persons living with urinary incontinence?  
 Outcomes: Episodes of incontinence and physical limitations.

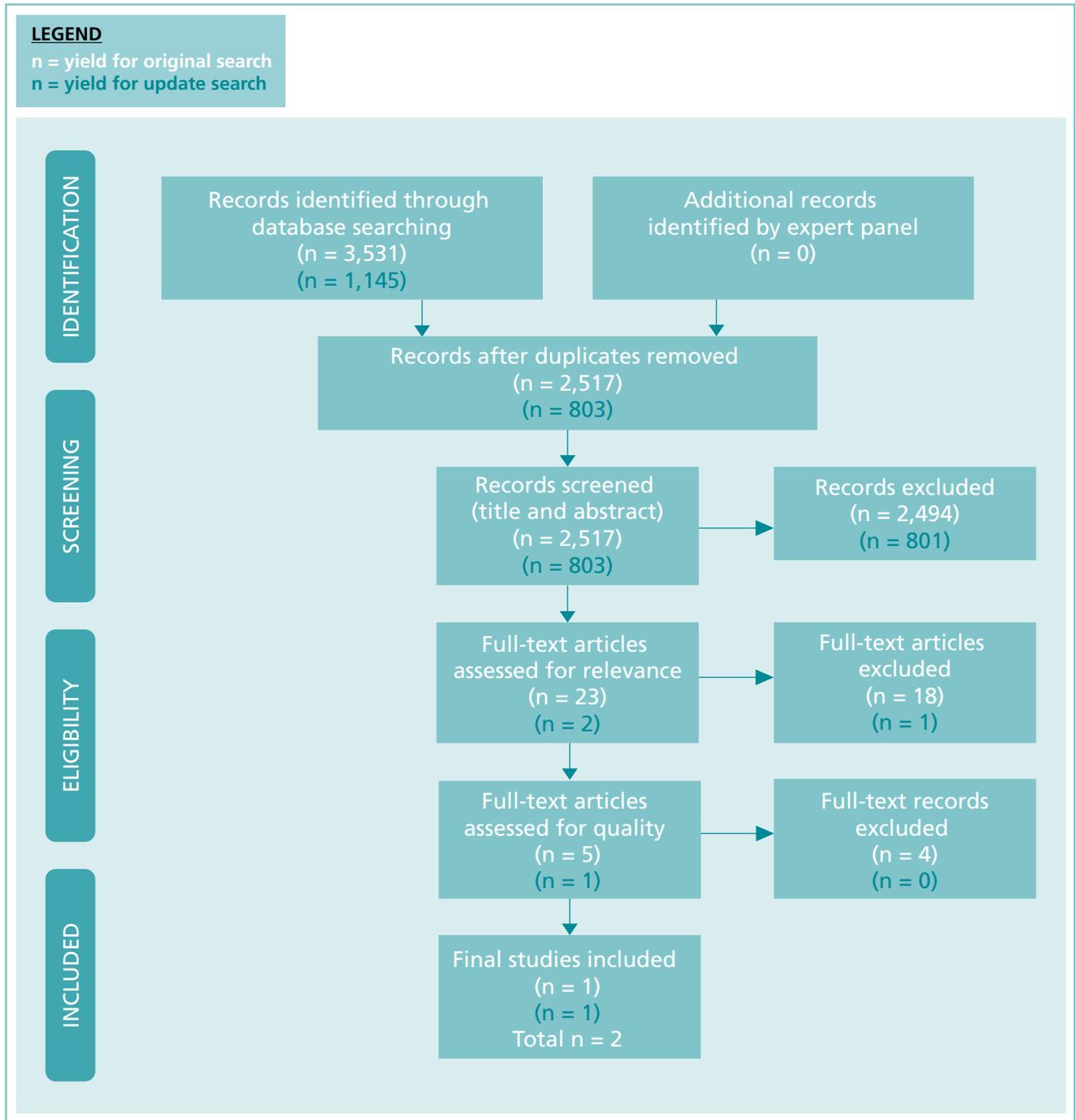


Source: Adapted by the expert panel from: Moher D, Liberati A, Tetzlaff J, et al. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *BMJ*. 2009;339:b2535. doi: 10.1136/bmj.b2535

**Figure 5: Article Review Process Flow Diagram for Recommendation Question #3**

Should an interprofessional approach be recommended to improve outcomes in persons living with urinary incontinence?

Outcomes: Patient satisfaction and episodes of incontinence.

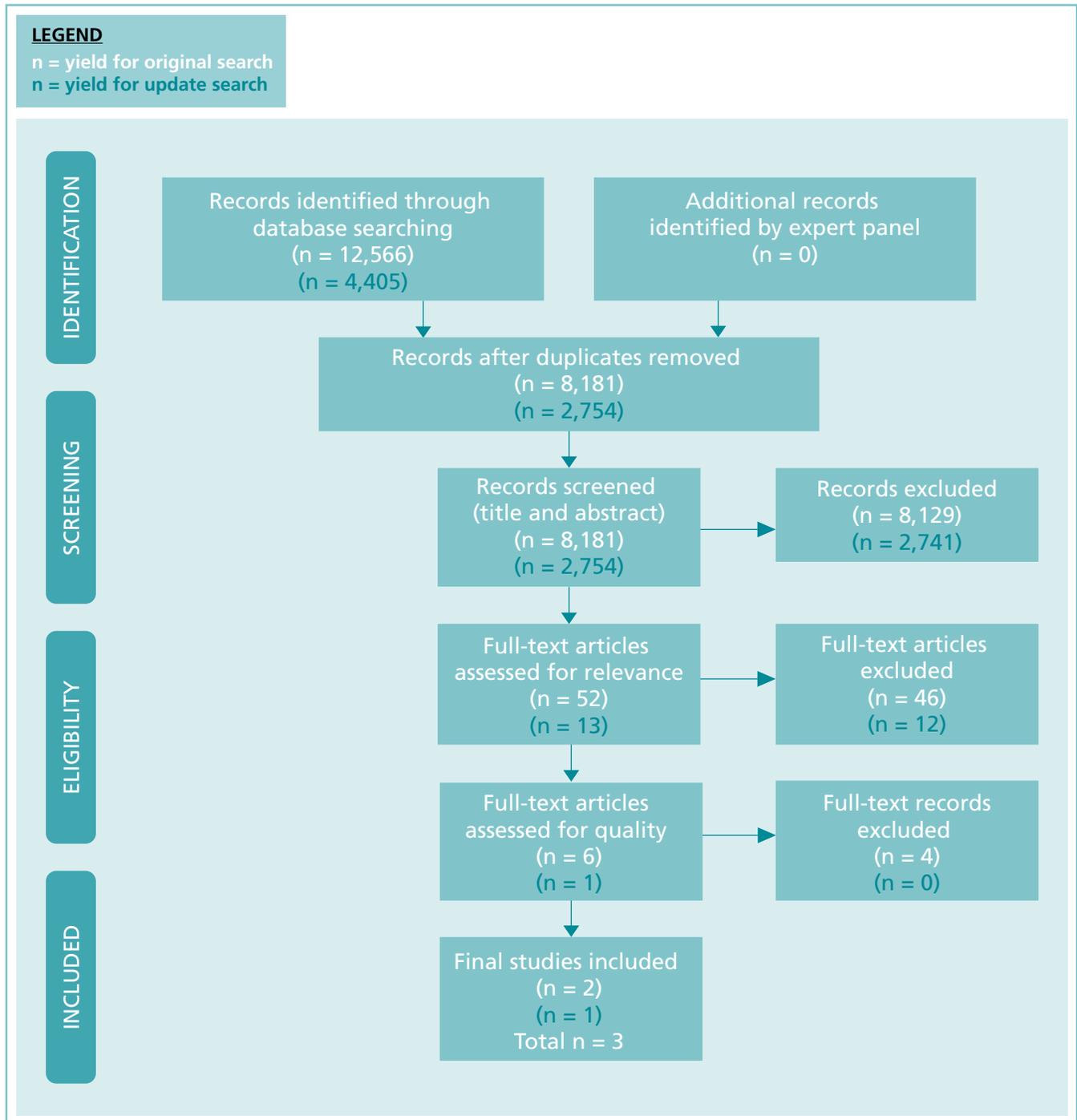


Source: Adapted by the expert panel from: Moher D, Liberati A, Tetzlaff J, et al. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *BMJ*. 2009;339:b2535. doi: 10.1136/bmj.b2535

**Figure 6: Article Review Process Flow Diagram for Recommendation Question #4**

Should physical activity be recommended to improve outcomes in persons living with fecal incontinence and/or constipation?

Outcomes: Constipation and quality of life.

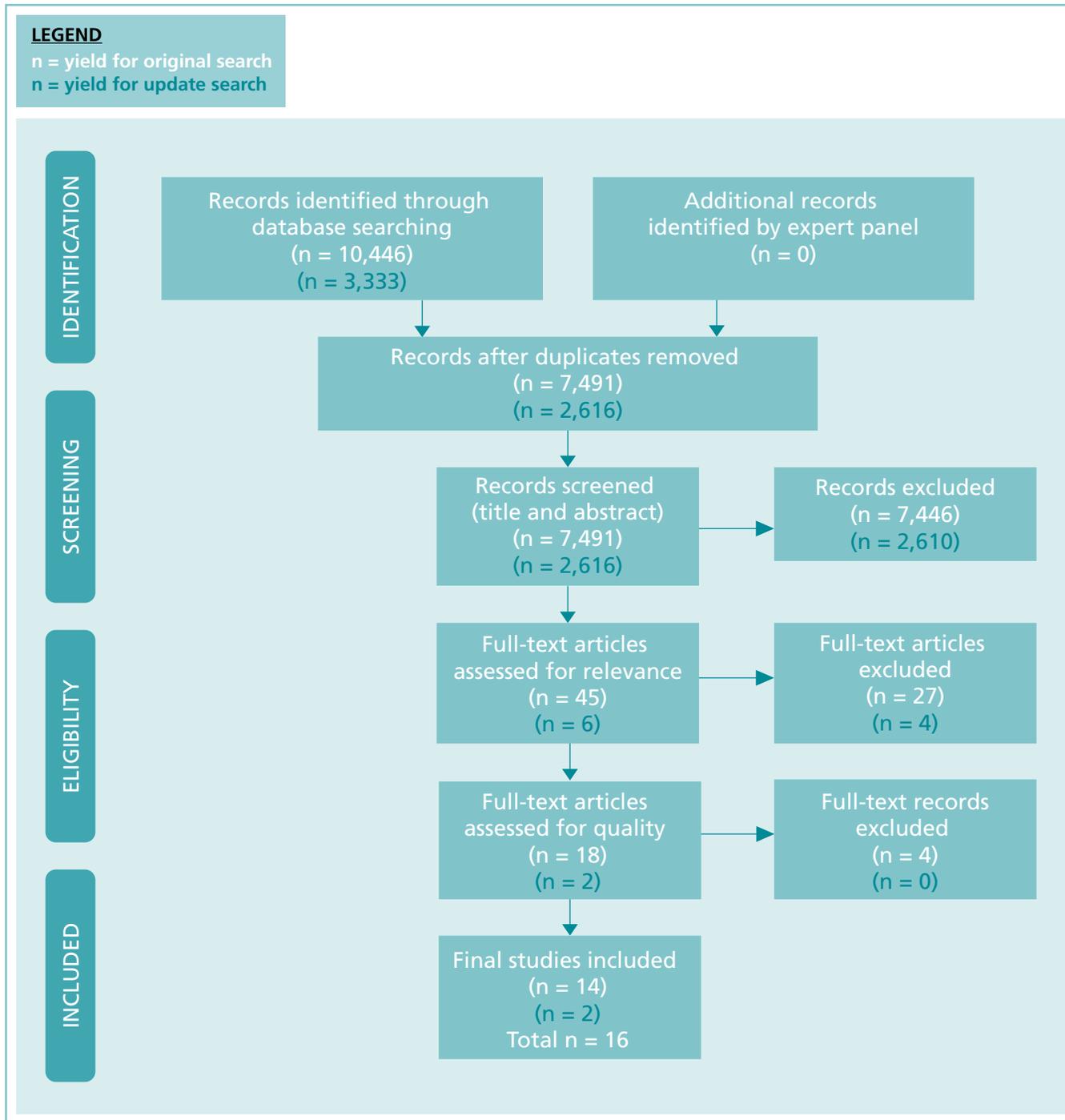


Source: Adapted by the expert panel from: Moher D, Liberati A, Tetzlaff J, et al. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *BMJ*. 2009;339:b2535. doi: 10.1136/bmj.b2535

**Figure 7: Article Review Process Flow Diagram for Recommendation Question #5**

Should adequate intake of fibre and/or fluids be recommended to improve outcomes in persons living with fecal incontinence and/or constipation?

Outcomes: Frequency of bowel movements, stool consistency, laxative use, episodes of incontinence and quality of life.

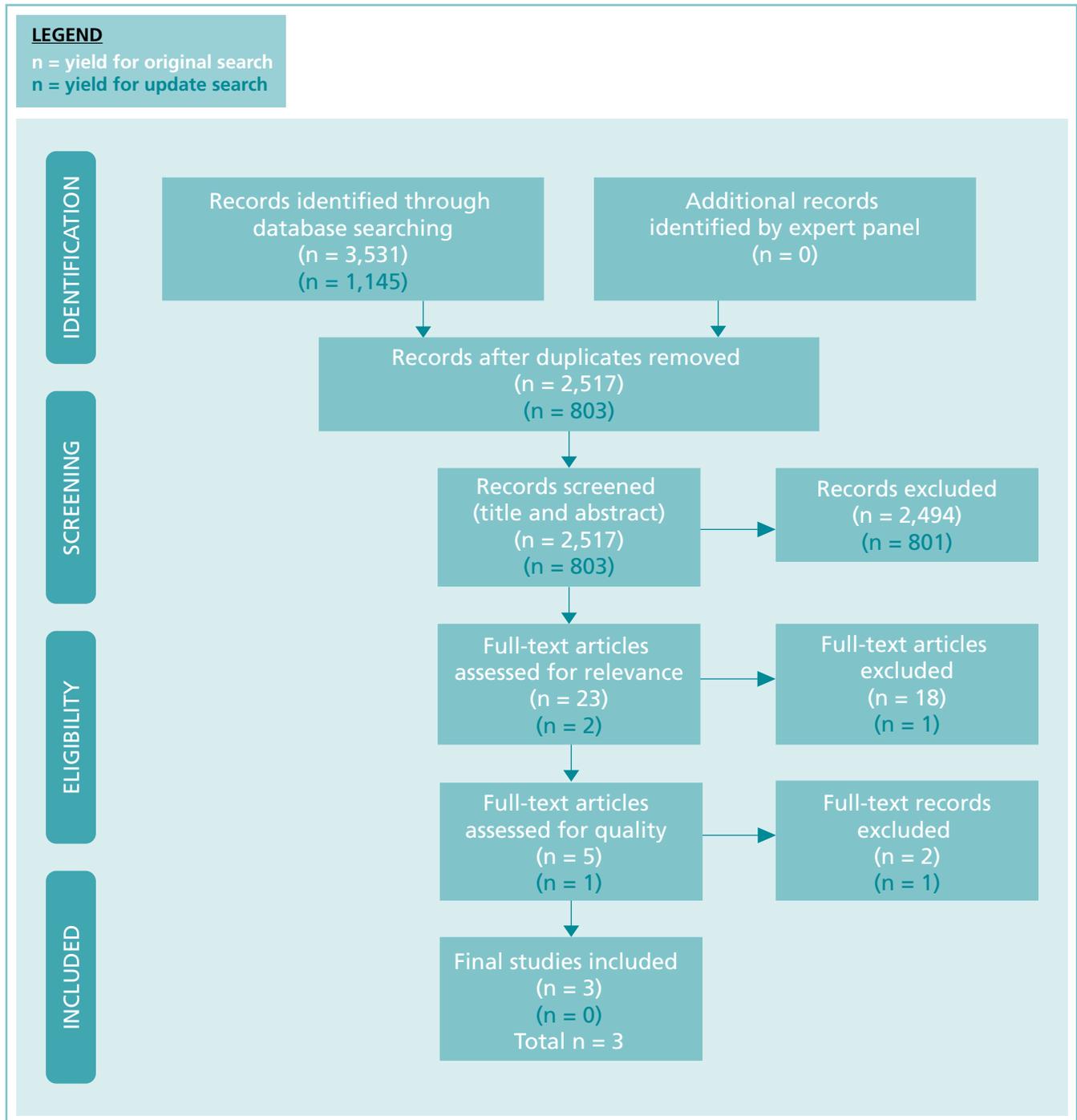


Source: Adapted by the expert panel from: Moher D, Liberati A, Tetzlaff J, et al. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *BMJ*. 2009;339:b2535. doi: 10.1136/bmj.b2535

**Figure 8: Article Review Process Flow Diagram for Recommendation Question #6**

Should an interprofessional approach be recommended to improve outcomes in persons living with fecal incontinence and/or constipation?

Outcomes: Quality of life, access to care, patient satisfaction, episodes of incontinence and constipation.

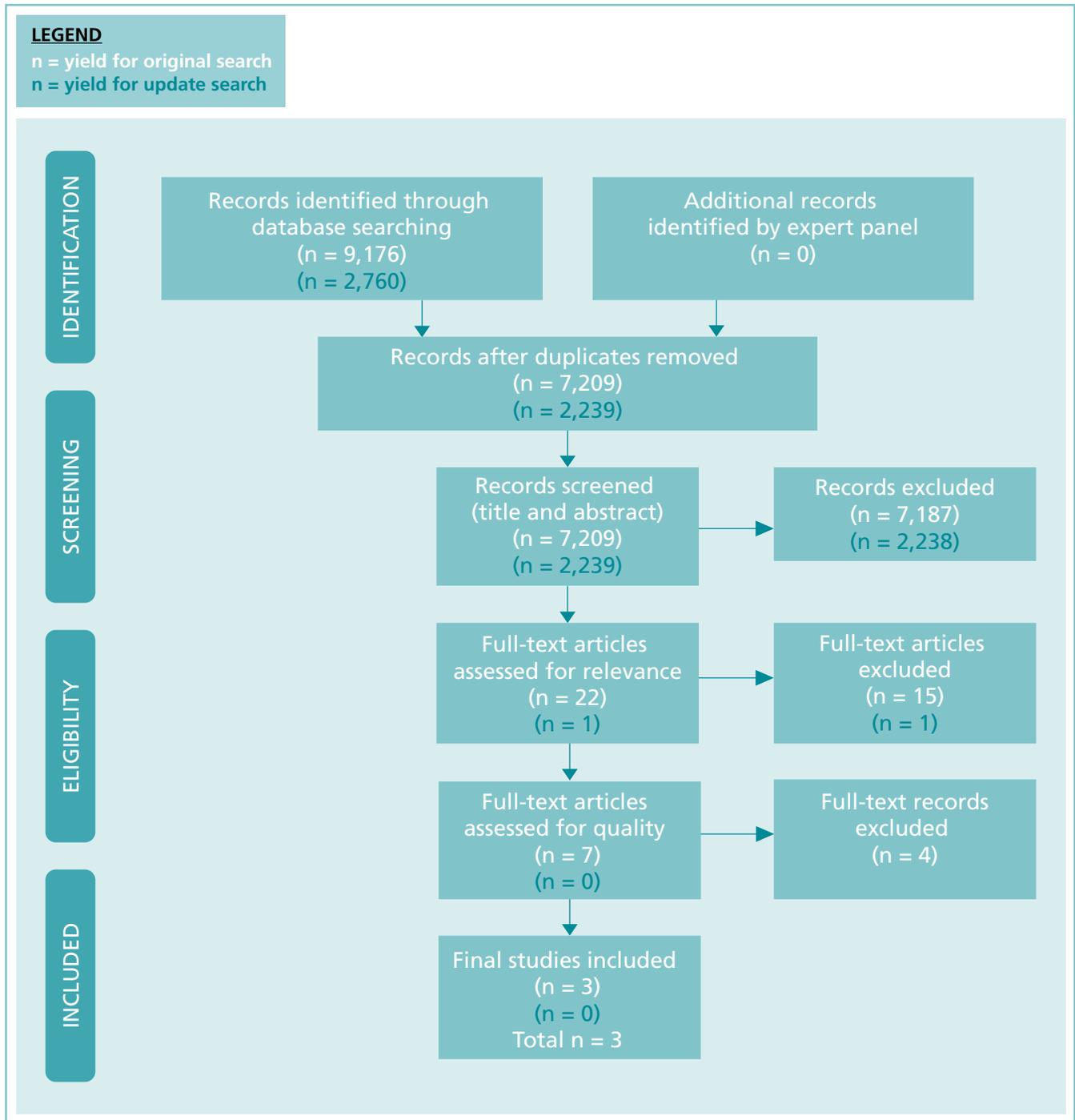


Source: Adapted by the expert panel from: Moher D, Liberati A, Tetzlaff J, et al. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *BMJ*. 2009;339:b2535. doi: 10.1136/bmj.b2535

**Figure 9: Article Review Process Flow Diagram for Recommendation Question #7**

Should a bowel protocol be recommended to improve outcomes in persons living with fecal incontinence and/or constipation?

Outcomes: Constipation and laxative use.



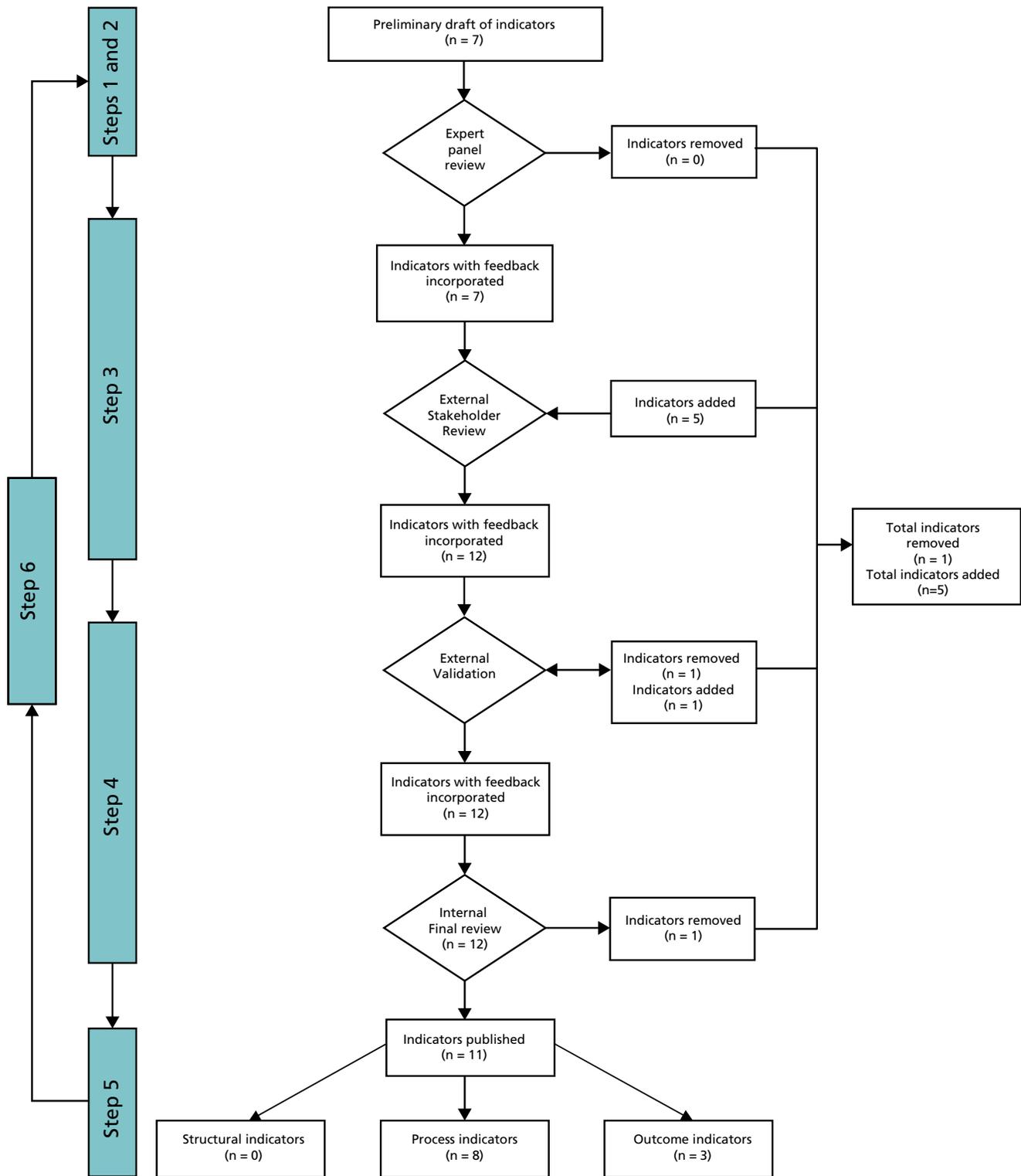
Source: Adapted by the expert panel from: Moher D, Liberati A, Tetzlaff J, et al. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *BMJ*. 2009;339:b2535. doi: 10.1136/bmj.b2535

## Appendix F: Indicator Development Process

The following is a summary of the RNAO indicator development process steps (see Figure 10).

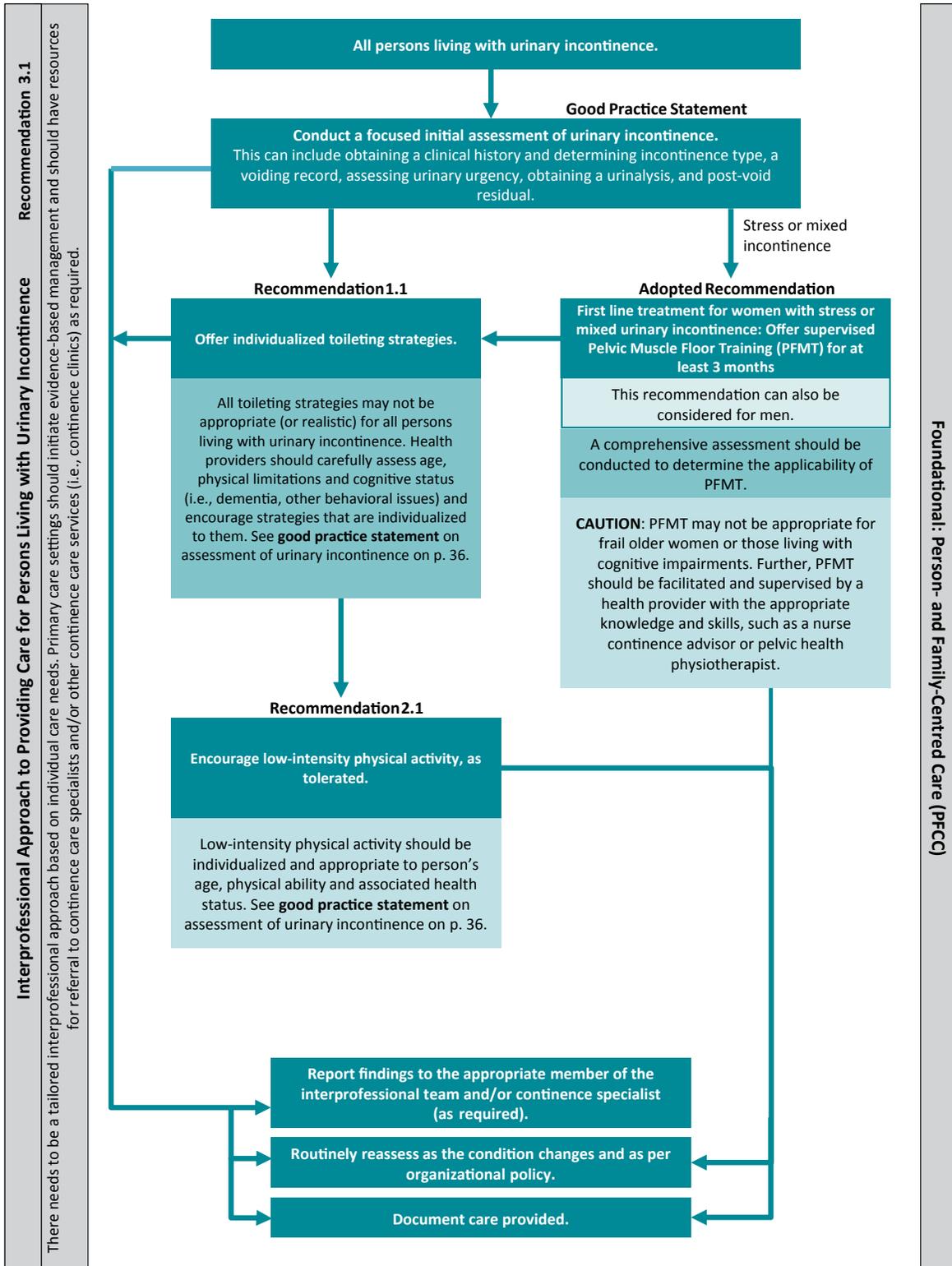
1. **Guideline selection:** Indicators are developed for guidelines focused on health system priorities, with an emphasis to fill gaps in measurement while reducing reporting burden.
2. **Extraction of recommendations:** Practice recommendations, overall guideline outcomes and BPG Order Sets (if applicable) are reviewed to extract potential measures for indicator development.
3. **Indicator selection and development:** Indicators are selected and developed through established methodology, including alignment with external data repositories and health information data libraries.
4. **Practice test and validation:** Proposed indicators are internally validated through face and content validity, and externally validated by national and international organization representatives.
5. **Implementation:** Indicators are published in the Evaluation and Monitoring chart, and data dictionaries are published on the NQuIRE website.
6. **Data quality assessment and evaluation:** Data quality assessment and evaluation, as well as ongoing feedback from BPSOs, ensure purposeful evolution of NQuIRE indicators.

Figure 10: Indicator Development Flow Diagram

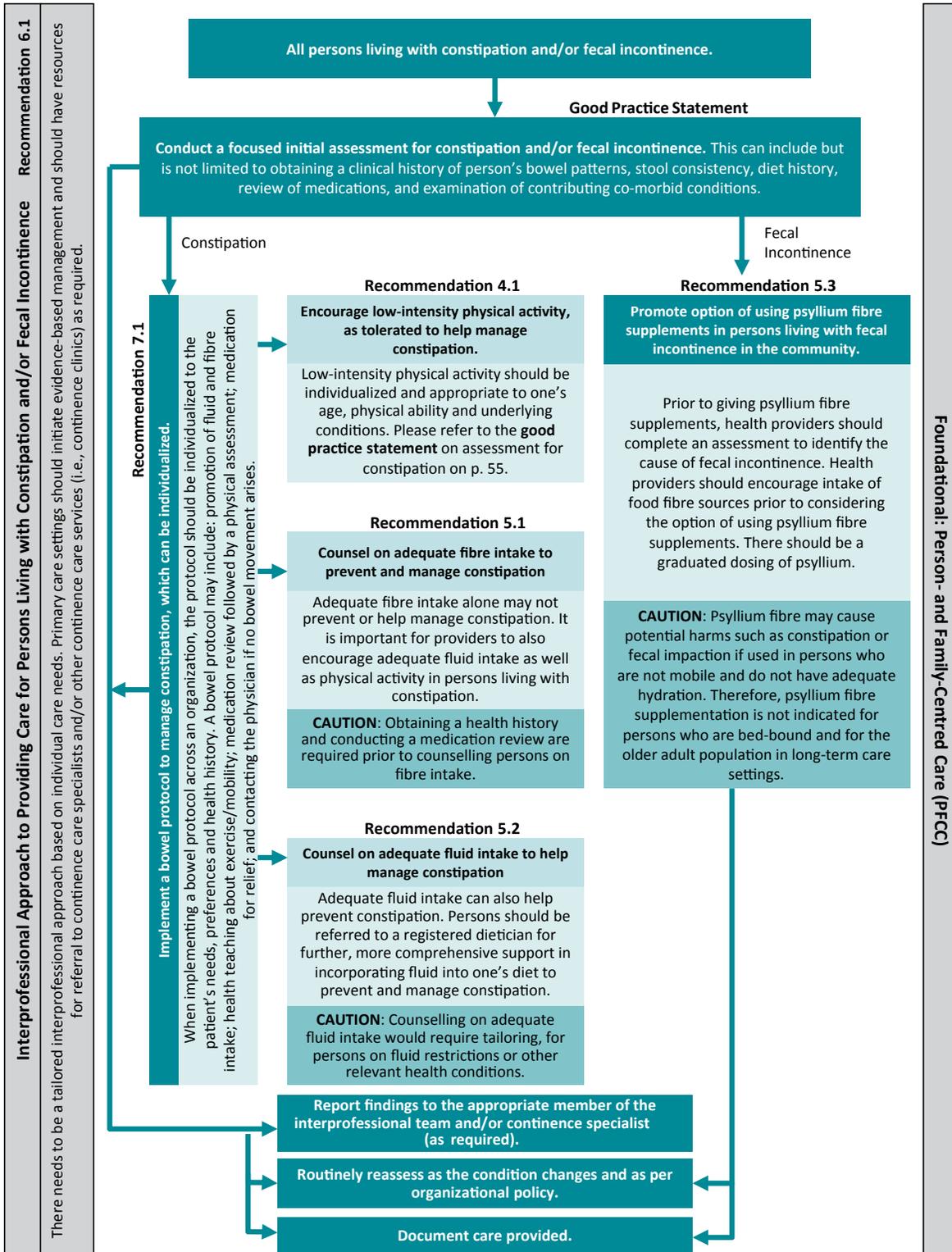


Source: Adapted by the expert panel from: Moher D, Liberati A, Tetzlaff J, et al. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *BMJ*. 2009;339:b2535. doi: 10.1136/bmj.b2535

# Appendix G: Algorithm for Urinary Incontinence Care



# Appendix H: Algorithm for Constipation/Fecal Incontinence Care



## Appendix I: Conditions That Can Cause Urinary Incontinence in Persons

<p><b>Co-morbid medical illnesses</b></p>	<ul style="list-style-type: none"> <li>■ benign prostate hypertrophy</li> <li>■ chronic pulmonary disease</li> <li>■ congestive heart failure</li> <li>■ degenerative joint disease</li> <li>■ diabetes insipidus</li> <li>■ diabetes mellitus</li> <li>■ lower extremity venous insufficiency</li> <li>■ obesity</li> <li>■ sleep apnea</li> <li>■ spina bifida</li> </ul>
<p><b>Environmental factors</b></p>	<ul style="list-style-type: none"> <li>■ inaccessible toilets</li> <li>■ lack of timely toileting assistance</li> <li>■ poorly identified toilet facilities (i.e., unclear signage)</li> <li>■ unsafe toilet facilities (e.g., inadequate lighting, unavailability of grab rails or inappropriate toilet seat height)</li> </ul>
<p><b>Functional impairments</b></p>	<ul style="list-style-type: none"> <li>■ impaired cognition</li> <li>■ impaired mobility</li> </ul>
<p><b>Neurological and psychiatric conditions</b></p>	<ul style="list-style-type: none"> <li>■ dementia</li> <li>■ depression</li> <li>■ multiple sclerosis</li> <li>■ normal pressure hydrocephalus</li> <li>■ Parkinson’s disease</li> <li>■ spinal cord injury</li> <li>■ stroke</li> <li>■ other progressive neurological conditions (e.g., ALS)</li> </ul>
<p><b>Obstetric history</b></p>	<ul style="list-style-type: none"> <li>■ birth weight &gt; 4 kg</li> <li>■ primiparous delivery</li> <li>■ use of forceps</li> </ul>

<p><b>Previous surgeries</b></p>	<ul style="list-style-type: none"> <li>■ hysterectomy</li> <li>■ radical prostatectomy</li> </ul>
<p><b>Other factors</b></p>	<ul style="list-style-type: none"> <li>■ developmental disabilities</li> <li>■ hormone replacement therapy</li> <li>■ long term hospitalization</li> <li>■ menopause</li> <li>■ pelvic floor muscle trauma</li> <li>■ pelvic organ prolapse</li> <li>■ severe constipation and fecal impaction</li> <li>■ smoking</li> <li>■ urinary retention</li> </ul>

Source: Adapted by the expert panel from: Abrams P, Cardozo L, Wagg A, et al., editors. Incontinence [Internet]. 6th ed. Bristol (UK): ICI Books; 2017. Chapter 11, Incontinence in frail older persons; p. 1322-3. Available from: [https://www.ics.org/publications/ici\\_6/Incontinence\\_6th\\_Edition\\_2017\\_eBook\\_v2.pdf](https://www.ics.org/publications/ici_6/Incontinence_6th_Edition_2017_eBook_v2.pdf)

## Appendix J: Medications That Can Cause Urinary Incontinence in Persons

To search the uses and side effects of specific medications, please visit the Government of Canada's Drug Product Database at: <https://health-products.canada.ca/dpd-bdpp/index-eng.jsp>

MEDICATIONS	EFFECTS ON CONTINENCE
<b>Alpha adrenergic agonists</b>	<ul style="list-style-type: none"> <li>■ Increase smooth muscle tone in urethra and prostatic capsule, and may precipitate obstruction, urinary retention and related symptoms.</li> </ul>
<b>Alpha adrenergic antagonists</b>	<ul style="list-style-type: none"> <li>■ Decrease smooth muscle tone in the urethra and may precipitate stress urinary incontinence in women.</li> </ul>
<b>Angiotensin converting enzyme (ACE) inhibitors</b>	<ul style="list-style-type: none"> <li>■ Cause chronic cough that can exacerbate stress urinary incontinence.</li> </ul>
<b>Anticholinergics</b>	<ul style="list-style-type: none"> <li>■ May cause impaired emptying, urinary retention and constipation that can contribute to urinary incontinence.</li> <li>■ May cause cognitive impairment and reduce effective toileting ability.</li> </ul>
<b>Antispasmodics</b>	<ul style="list-style-type: none"> <li>■ May cause urinary retention.</li> </ul>
<b>Beta blockers</b>	<ul style="list-style-type: none"> <li>■ May cause urinary retention.</li> </ul>
<b>Calcium channel blockers</b>	<ul style="list-style-type: none"> <li>■ May cause impaired emptying, urinary retention and constipation that can contribute to urinary incontinence.</li> <li>■ May cause dependent edema, which can contribute to nocturnal polyuria.</li> </ul>
<b>Cholinesterase inhibitors</b>	<ul style="list-style-type: none"> <li>■ Increase bladder contractility and may precipitate urgency urinary incontinence.</li> </ul>
<b>Diuretics</b>	<ul style="list-style-type: none"> <li>■ Cause diuresis and precipitate urinary incontinence.</li> </ul>
<b>Lithium</b>	<ul style="list-style-type: none"> <li>■ Polyuria due to diabetes insipidus.</li> </ul>
<b>Opioid analgesics</b>	<ul style="list-style-type: none"> <li>■ May cause urinary retention, constipation, confusion and immobility, all of which can contribute to urinary incontinence.</li> </ul>

MEDICATIONS	EFFECTS ON CONTINENCE
<b>Psychotropic drugs, sedatives, hypnotics, antipsychotics, histamine1 receptor antagonists</b>	<ul style="list-style-type: none"> <li>■ May cause confusion and impaired mobility and precipitate urinary incontinence.</li> </ul>
<b>Selective serotonin re-uptake inhibitors</b>	<ul style="list-style-type: none"> <li>■ Increase cholinergic transmission and may lead to urinary incontinence.</li> </ul>
<b>Sodium-glucose cotransporter 2 (SGLT2) inhibitor</b>	<ul style="list-style-type: none"> <li>■ Glycosuria and polyuria, and increased propensity for urinary tract infections.</li> </ul>
<b>Others (gabapentin, glitazones, non-steroidal anti-inflammatory agents)</b>	<ul style="list-style-type: none"> <li>■ Can cause edema, which can lead to nocturnal polyuria and cause nocturia and night-time urinary incontinence.</li> </ul>

Source: Adapted by the expert panel from: Abrams P, Cardozo L, Wagg A, et al., editors. Incontinence [Internet]. 6th ed. Bristol (UK): ICI Books; 2017. Chapter 11, Incontinence in frail older persons; p. 1323-4. Available from: [https://www.ics.org/publications/ici\\_6/Incontinence\\_6th\\_Edition\\_2017\\_eBook\\_v2.pdf](https://www.ics.org/publications/ici_6/Incontinence_6th_Edition_2017_eBook_v2.pdf)

# Appendix K: Sample Voiding Record

<b>Void:</b> Write in the amount each time you pass urine in the toilet. <b>Drink:</b> Write in the amount each time you have a drink. <b>Wet event:</b> Each time you are wet.		Time	Void	Drink	Wet Event	Time	Void	Drink	Wet Event
		6:00 am				6:00 pm			
		6:30 am				6:30 pm			
		7:00 am				7:00 pm			
		7:30 am				7:30 pm			
		8:00 am				8:00 pm			
		8:30 am				8:30 pm			
		9:00 am				9:00 pm			
		9:30 am				9:30 pm			
		10:00 am				10:00 pm			
		10:30 am				10:30 pm			
		11:00 am				11:00 pm			
		11:30 am				11:30 pm			
		12:00 noon				12:00 night			
		12:30 pm				12:30 am			
		1:00 pm				1:00 am			
		1:30 pm				1:30 am			
		2:00 pm				2:00 am			
		2:30 pm				2:30 am			
		3:00 pm				3:00 am			
		3:30 pm				3:30 am			
		4:00 pm				4:00 am			
		4:30 pm				4:30 am			
		5:00 pm				5:00 am			
		5:30 pm				5:30 am			

Source: Collaborative Continence Program, St. Joseph's Community Health Centre. Reprinted with permission: Jennifer Skelly, RN, PhD, Associate Professor, McMaster University School of Nursing, Director, Continence Program, St. Joseph's Healthcare, Hamilton, Ontario.

## Appendix L: Validated Questionnaires to Assess Urinary Urgency

The validated questionnaires and scales listed in this appendix are identified in *Incontinence, Sixth Edition*, published by the International Continence Society (ICS) in 2017. Please note that these questionnaires are not open-access resources.

This list is not exhaustive, and the inclusion of the questionnaires and scales in this table does not imply an endorsement from RNAO.

- Urgency Perception Score (UPS)
- Urgency Questionnaire (UQ)
- Urgency Severity and Life Impact Questionnaire: Quality of Life (USIQ-QoL)
- Urgency Severity and Life Impact Questionnaire: Severity Symptoms (USIQ-S)
- Urgency Perception Scale (UPS)
- Indevus Urgency Severity Scale (IUSS)
- Patients' Perception of Intensity of Urgency Scale (PPIUS)
- Urinary Sensation Scale (USS)
- Urgency Rating Scale (URS)

Source: Abrams P, Cardozo L, Wagg A, et al., editors. *Incontinence* [Internet]. 6th ed. Bristol (UK): ICI Books; 2017. Chapter 5A, Initial assessment of urinary incontinence in adult male and female patients; p. 508-9. Available from: [https://www.ics.org/publications/ici\\_6/Incontinence\\_6th\\_Edition\\_2017\\_eBook\\_v2.pdf](https://www.ics.org/publications/ici_6/Incontinence_6th_Edition_2017_eBook_v2.pdf)

# Appendix M: Prompted Voiding Protocol

The following factors can relate to an individual’s responsiveness to prompted voiding:

- Recognizing the need to void;
- Higher number of self-initiated requests to toilet;
- Ability to void successfully when given toileting assistance;
- Ability to ambulate independently;
- More cognitively intact; and
- Higher completion of assigned prompted voiding sessions by care provider.

The best predictor of an individual’s response to prompted voiding is his or her success during a trial of prompted voiding (Lyons & Pringle Specht, 1999).

## Communication Techniques for use with Prompted Voiding Protocol

Approach person at prescribed time.	Establishes trusting relationship. Reinforces desired toileting behaviour.
Greet individual by name, introduce self, and state purpose of interaction.	“Hello, Mr. Roberts. I am Jane, your nurse. I am here to help you get to the bathroom”.
Provide information.	“It’s 2:00 – the time we agreed to meet so I could help you. I am here to help you get to the toilet”.
Determine how the person informs others of the need to toilet.	“Your call light is on – do you need to use the toilet?”
Provide visual cues in the environment to promote desired toileting behaviour.	<ul style="list-style-type: none"> <li>■ Use a picture of toilet on bathroom door rather than abstract symbols.</li> <li>■ Leave bathroom door ajar when not in use.</li> <li>■ Use clocks with large numbers near restrooms to remind staff of toileting schedules.</li> <li>■ Post toileting schedules where staff will see it to remind them of the need to maintain assigned prompted voiding schedules.</li> </ul>
Provide for privacy.	“Let’s go into the bathroom to check your clothing. I will wait outside the restroom while you empty your bladder”.

<p>Ask for permission prior to performing continence check.</p>	<ul style="list-style-type: none"> <li>■ “Can I help you find out if your clothing is still dry?”</li> <li>■ “I want to check your underclothes to see if they are wet - is that okay with you?”</li> <li>■ “Sometimes it’s hard to remember or realize that you have passed urine. Do you mind if I check to see if you’re still dry?”</li> </ul>
<p>Determine person’s awareness of continence status.</p>	<p>“Can you tell me if you feel wet or dry right now?”</p>
<p>Ask if person feels the need to void.</p>	<p>Encourages the individual to re-learn bladder sensations. “Does your bladder feel full?” “Do you feel pressure in your lower abdomen?”</p>
<p>Prompt person to use toilet. Repeat prompt up to 3 times.</p>	<p>“It’s time for you to use the bathroom.” “Please use the toilet to empty your bladder.”</p>
<p>Use familiar language for toileting behaviour. Be consistent with language.</p>	<p>“Do you need to empty your bladder/urinate/pee/ make water/use the toilet/etc?”</p>
<p>Offer toileting assistance.</p>	<p>“Can I help you on to the toilet/bedpan? I will leave the urinal with you so you can empty your bladder. Can I help you clean up/adjust your clothing?”</p>
<p>Give positive feedback at an adult level.</p>	<p>“Yes, you are dry. You’re doing a good job with this new plan.” “Thanks for reminding me when to help you in the bathroom.” “You stayed dry all day. It must feel great to be accomplishing your goals”.</p>
<p>Refrain from using negative feedback or treating the individual like a child.</p>	<p>Promotes self-esteem. Builds trusting relationship.</p>

<p>Provide frequent reminders about desired behaviours.</p>	<p>“If you feel the urge to go to the toilet, let me know and I will help you.”                  “Try to hold your urine until our appointment at 4:00.” “I will help you to the toilet at 4:00.”                  “If you need to use the toilet, please do so. I will help if you need it.”</p>
<p>Inform individual of next scheduled prompted voiding session.</p>	<p>“I would like you to hold your urine until 4:00.”                  “That is 2 hours from now. I will help you use the toilet at 4:00.”</p>

Source: Reprinted from: Lyon SS, Specht JKP. Prompted voiding for persons with urinary incontinence evidence-based protocol. Iowa City (IA): University of Iowa College of Nursing Gerontological Nursing Interventions Research Center, Research Translation and Dissemination Core; 1999. (Titler MG, series editor. Series on evidence-based practice for older adults). Reprinted with permission.

## Appendix N: Risk Factors for Fecal Incontinence

<p><b>Chronic medical disorders and/or bowel-related disorders</b></p>	<ul style="list-style-type: none"> <li>■ congenital anorectal anomalies</li> <li>■ constipation with fecal impaction</li> <li>■ diabetes mellitus</li> <li>■ hemorrhoids</li> <li>■ inflammatory bowel disease</li> <li>■ irritable bowel disease</li> <li>■ rectal prolapse</li> </ul>
<p><b>Environmental factors</b></p>	<ul style="list-style-type: none"> <li>■ inaccessible toilets</li> <li>■ lack of timely toileting assistance</li> <li>■ use of restraints</li> </ul>
<p><b>Functional impairments</b></p>	<ul style="list-style-type: none"> <li>■ impaired cognition</li> <li>■ impaired mobility</li> </ul>
<p><b>Neurological conditions</b></p>	<ul style="list-style-type: none"> <li>■ cauda equina syndrome</li> <li>■ dementia</li> <li>■ multiple sclerosis</li> <li>■ muscular dystrophy</li> <li>■ myasthenia gravis</li> <li>■ Parkinson’s disease</li> <li>■ spina bifida</li> <li>■ spinal cord injury</li> <li>■ stroke</li> <li>■ traumatic brain injury</li> </ul>
<p><b>Obstetric history</b></p>	<ul style="list-style-type: none"> <li>■ birth weight &gt; 4 kg</li> <li>■ occipital-posterior position at delivery</li> <li>■ primiparous delivery</li> <li>■ prolonged second stage of labour</li> <li>■ use of forceps</li> </ul>

<p><b>Previous surgeries</b></p>	<ul style="list-style-type: none"> <li>■ anal fissure surgery</li> <li>■ cholecystectomy</li> <li>■ fistula repair</li> <li>■ hemorrhoid surgery</li> <li>■ low anorectal resection for colorectal cancer</li> <li>■ partial or total colectomy</li> <li>■ prior pelvic/perianal radiation</li> <li>■ prostatectomy</li> </ul>	
<p><b>Medications</b></p>	<p><b>Type of Medication</b></p>	<p><b>Effects on Continence</b></p>
	<ul style="list-style-type: none"> <li>■ Laxatives</li> </ul>	<ul style="list-style-type: none"> <li>■ Overuse or abuse of laxatives could cause chronic diarrhea, leading to fecal incontinence, particularly in the elderly.</li> </ul>
	<ul style="list-style-type: none"> <li>■ Anti-anginal and anti-hypertensive medications (e.g., calcium channel blockers and alpha-1 adrenergic receptor antagonists)</li> </ul>	<ul style="list-style-type: none"> <li>■ May reduce internal anal sphincter tone.</li> </ul>
<ul style="list-style-type: none"> <li>■ Magnesium-containing antacids</li> </ul>	<ul style="list-style-type: none"> <li>■ May provoke diarrhea.</li> </ul>	

Source: Adapted by RNAO expert panel from: Abrams P, Cardozo L, Wagg A, et al., editors. Incontinence [Internet]. 6th ed. Bristol (UK): ICI Books; 2017. Chapter 16, Assessment and conservative management of faecal incontinence and quality of life in adults; p. 1998-2000. Available from: [https://www.ics.org/publications/ici\\_6/Incontinence\\_6th\\_Edition\\_2017\\_eBook\\_v2.pdf](https://www.ics.org/publications/ici_6/Incontinence_6th_Edition_2017_eBook_v2.pdf)

## Appendix O: Conditions That Can Cause Constipation

<b>Cancer/cancer-related</b>	<ul style="list-style-type: none"> <li>■ colorectal cancer</li> <li>■ dehydration</li> <li>■ intestinal radiation</li> <li>■ tumour compression of large intestine</li> </ul>
<b>Endocrine disorders</b>	<ul style="list-style-type: none"> <li>■ diabetes</li> <li>■ hormonal changes</li> <li>■ hyperparathyroidism</li> <li>■ hypothyroidism</li> </ul>
<b>Gastrointestinal disorders</b>	<ul style="list-style-type: none"> <li>■ diverticulosis</li> <li>■ Hirschsprung’s disease</li> <li>■ irritable bowel syndrome</li> <li>■ megacolon</li> <li>■ rectoceles</li> <li>■ strictures</li> </ul>
<b>Metabolic conditions</b>	<ul style="list-style-type: none"> <li>■ hypercalcemia</li> <li>■ hypocalcemia</li> <li>■ hypomagnesemia</li> <li>■ hypokalemia</li> <li>■ uremia</li> </ul>
<b>Neurological conditions</b>	<ul style="list-style-type: none"> <li>■ autonomic neuropathy</li> <li>■ dementia</li> <li>■ multiple sclerosis</li> <li>■ muscular dystrophies</li> <li>■ Parkinson’s disease</li> <li>■ spinal cord lesions</li> <li>■ stroke</li> </ul>

<b>Psychological conditions</b>	<ul style="list-style-type: none"><li>■ anxiety</li><li>■ depression</li><li>■ eating disorders</li></ul>
<b>Other</b>	<ul style="list-style-type: none"><li>■ chronic kidney disease</li><li>■ hemorrhoids</li><li>■ increased age</li><li>■ pregnancy</li><li>■ sexual abuse</li><li>■ systematic sclerosis</li></ul>

Source: Kosar L, Schuster B. Management of constipation. Saskatoon (SK): RxFiles; 2019.

## Appendix P: Medications That Can Cause Constipation

To search the uses and side effects of specific medications, please visit the Government of Canada's Drug Product Database at: <https://health-products.canada.ca/dpd-bdpp/index-eng.jsp>

- analgesics
- anticholinergics
- anti-Parkinson
- anti-convulsants
- anti-depressants
- antidiarrheals
- antiemetics
- antihistamines
- antihypertensives
- antispasmodics
- cation agents
- chemotherapy drugs
- resins

Source: Kosar L, Schuster B. Management of constipation. Saskatoon (SK): RxFiles; 2019.

# Appendix Q: Bristol Stool Chart

Bristol Stool Chart		
Type 1		Separate hard lumps, like nuts (hard to pass)
Type 2		Sausage-shaped but lumpy
Type 3		Like a sausage but with cracks on its surface
Type 4		Like a sausage or snake, smooth and soft
Type 5		Soft blobs with clear-cut edges (passed easily)
Type 6		Fluffy pieces with ragged edges, a mushy stool
Type 7		Watery, no solid pieces. <b>Entirely Liquid</b>

Source: Reprinted from: Rome Foundation. Bristol stool chart (English for Canada). [place unknown: publisher unknown]; 2000. Reprinted with permission.

# Appendix R: Sample Bowel Elimination Record

Patient/Client Name: \_\_\_\_\_

	Date:			Date:		
	Nights	Days	Evenings	Nights	Days	Evenings
BM						
Time						
Continent						
Nature						
Amount						
Toilet						
Fluid intake						
24-hour intake						
Fibre intake						
Treatment						
Referrals/Consults						
Total # of BMs						
# Episodes of constipation/ fecal soiling						
Initials						
	Date:			Date:		
	Nights	Days	Evenings	Nights	Days	Evenings
BM						
Time						
Nature						
Amount						
Toilet						
Fluid intake						
24-hour intake						
Fibre intake						
Treatment						
Referrals/Consults						
Total # of BMs						
# Episodes of constipation/ fecal soiling						
Initials						

APPENDICES

Patient/Client Name: \_\_\_\_\_

	Date:			Date:		
	Nights	Days	Evenings	Nights	Days	Evenings
BM						
Time						
Continent						
Nature						
Amount						
Toilet						
Fluid intake						
24-hour intake						
Fibre intake						
Treatment						
Referrals/Consults						
Total # of BMs						
# Episodes of constipation/ fecal soiling						
Initials						

	Date:			Date:		
	Nights	Days	Evenings	Nights	Days	Evenings
BM						
Time						
Nature						
Amount						
Toilet						
Fluid intake						
24-hour intake						
Fibre intake						
Treatment						
Referrals/Consults						
Total # of BMs						
# Episodes of constipation/ fecal soiling						
Initials						

**Legend:** BM (Bowel Movement): ✓ Enter time: \_\_\_\_\_ Continent: ✓ = Continent; I = Incontinent  
**Amount:** S = small (< 250 ml); M = normal (> 250 - < 500 ml); L = large (> 500 ml); FO = oozing; FS = staining  
**Nature:** N = normal (soft, formed, brown stool; not foul smelling); H = hard, dry; W = watery, liquid; P = pasty; B = bulky and unformed  
**Toilet:** T = toilet; C = commode; B = bedpan; SL = side lying  
**Fluid intake:** Record actual amount consumed per shift. Calculate 24-hour intake.  
**Fibre intake:** Record number of fibre items consumed.  
**Treatments:** PRN laxatives, suppositories, enemas, rectal stimulation. Enter time treatment given and initials. Regularly prescribed laxatives are recorded on Medication Administration Record (MAR).  
**Referrals:** D = Dietitian; NCA = Nurse Continence Advisor; OT = Occupational Therapy; P = Pharmacy; PT = Physiotherapy  
 Enter total # of BMs: \_\_\_\_\_ Enter total episodes of constipation/fecal soiling: \_\_\_\_\_

*Disclaimer: The above bowel elimination record is developed by the RNAO Guideline Revision panel (2005) and is provided for sample purposes only.*

Source: Reprinted from: Registered Nurses' Association of Ontario. Promoting continence using prompted voiding. Toronto (ON): Registered Nurses' Association of Ontario; 2005.

# Appendix S: Sample Bowel Protocols

## Parkview Manor Health Care Centre – Healthy Bowel Protocol

Resident name: \_\_\_\_\_

Admission date: \_\_\_\_\_

Pertinent medical conditions that may contribute to constipation: \_\_\_\_\_

# of days with no BM	Dietary intervention (BID)	Stimulant laxative (oral)	Ducolax suppository	Fleet enema	Assess bowel sounds, pain, distention, palpate	Consult with MD
1						
2						
3						
4						If no BM pc fleet

### Preferred dietary intervention to be given each day with no BM

- Prunes
- Extra flax
- Apple slices
- Other
- Prune juice
- Banana
- Apple sauce

### Stimulant laxative to be given on day 2 of no BM:

Senekot 8.6 mg 2 tabs by mouth once daily at supper \_\_\_\_\_ or bed time \_\_\_\_\_

Bisacodyl 5 mg 1 tab once daily at supper \_\_\_\_\_ or bed time \_\_\_\_\_

### Ducolax suppository: insert one suppository per rectum once daily on day 3 no BM

### Fleet enema to be administered per rectum once daily on day 4 no BM

#### DO NOT initiate bowel protocol if:

- a) bowel sounds are not heard
- b) abdominal mass is palpated that is of unknown origin
- c) significant change in resident’s level of consciousness or mental status
- d) resident complains (or shows signs of) severe abdominal pain

*If bowel protocol is used twice in a 4 week period, refer to dietitian to review dietary interventions .*

MD signature: \_\_\_\_\_ Date: \_\_\_\_\_

Source: Reprinted from: Parkview Manor. Healthy bowel protocol. Chesley (ON): Parkview Manor; 2020. Reprinted with permission.

### MEDICAL DIRECTIVES

RESIDENT: \_\_\_\_\_ ROOM # \_\_\_\_\_

ALLERGIES: \_\_\_\_\_

The Medication listed below may be administered by an RN/RPN for the symptoms indicated and for the time period stated *without* notifying the Doctor. The time, reason and effect of the medication will be charted in the Progress Notes. The actual medication will be written on the MAR followed by the words "Medical Directive." For homes with eMar, enter the order into the Physician's Order Section in PCC. These Medical Directives will be reviewed annually by the Home's Professional Advisory Committee (PAC). The Attending Physician/NP will review the Medical Directives for each resident with the Quarterly Medication Review (QMR).

Note: Please indicate the medical directives chosen for this resident, by placing a checkmark in the far left column.

✓	CONDITION	INDICATIONS	MEDICAL DIRECTIVE
	<b>Constipation</b>	2 days no bowel movement ■ Bowel assessment must be completed and bowel sounds present	Offer prune juice at breakfast  If ineffective provide Senokot (sennoside) 8.6mg. Administer 2 tablets by mouth at bedtime X1
		3 days no bowel movement ■ Bowel assessment must be complete and bowel sounds present	Lactulose 30ml to 45ml PO in the morning <b>OR</b> Milk of Magnesia 30ml in the morning  AND, if not ineffective,  Dulcolax suppository per rectum at bedtime x 1
		4 days no bowel movement ■ To be administered 1 day after lactulose or Milk of Magnesia and Dulcolax suppository ■ Bowel assessment must be complete and bowel sounds present	Sodium phosphate enema (Fleet) rectally x 1. Notify physician/NP if ineffective after 12 hours.  Notify Physician/NP to review regular laxatives.

Prescriber's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Registered Nurse Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Source: Reprinted from: Extencicare. Medical directives. Markham (ON): Extencicare; 2020. Reprinted with permission.

## Appendix T: Description of the Toolkit

BPGs can only be successfully implemented if planning, resources, and organizational and administrative supports are adequate, and if there is appropriate facilitation. To encourage successful implementation, an RNAO expert panel of nurses, researchers and administrators has developed the *Toolkit: Implementation of Best Practice Guidelines, Second Edition* (18). The *Toolkit* is based on available evidence, theoretical perspectives and consensus. We recommend the *Toolkit* for guiding the implementation of any clinical practice guideline in a health organization.

The *Toolkit* provides step-by-step directions for the individuals and groups involved in planning, coordinating and facilitating the guideline implementation. These steps reflect a process that is dynamic and iterative rather than linear. Therefore, at each phase, preparation for the next phases and reflection on the previous phase are essential.

Specifically, the *Toolkit* addresses the following key steps, as illustrated in the Knowledge-to-Action framework (72):

1. Identify the problem: identify, review and select knowledge (e.g., BPG).
2. Adapt knowledge to the local context.
  - a. Assess barriers and facilitators to knowledge use.
  - b. Identify resources.
3. Select, tailor and implement interventions.
4. Monitor knowledge use.
5. Evaluate outcomes.
6. Sustain knowledge use.

Implementing guidelines to effect successful practice changes and positive clinical impact is a complex undertaking. The *Toolkit* is one key resource for managing this process. It can be downloaded at [www.RNAO.ca/bpg/resources/toolkit-implementation-best-practice-guidelines-second-edition](http://www.RNAO.ca/bpg/resources/toolkit-implementation-best-practice-guidelines-second-edition)

\* The RNAO *Toolkit: Implementation of Best Practice Guidelines, Second Edition* is under review. The next edition is expected to be issued in 2021.

## Endorsements



### Canadian Nurse Continence Advisor Association

[canadiannursecontinenceadvisor@gmail.com](mailto:canadiannursecontinenceadvisor@gmail.com) [www.cnca.ca](http://www.cnca.ca)

August 10<sup>th</sup>, 2020

Doris Grinspun, RN, MSN, PhD, LLD (hon), Dr (hc), FAAN, O. ONT.  
Chief Executive Officer  
International Affairs and Best Practice Guidelines Centre  
Registered Nurses' Association of Ontario  
158 Pearl Street, Toronto, ON

**ENDORSEMENT:** Best Practice Guideline (BPG), *A Proactive Approach to Bladder and Bowel Management in Adults*.

Dear Doris,

RNAO is to be commended once again for taking a leadership role to improve bladder and bowel management in adults. Many Canadians are living with these issues that are often under-reported due to acceptance and stigma, as well as under-identified for assessment and interventions.

CNCA is pleased to endorse the Best Practice Guideline (BPG), *A Proactive Approach to Bladder and Bowel Management in Adults*. It will be a valuable resource to our members, as well as many other nurses, educators, and administrators. The guideline provides access to concise and actionable evidence supporting continence care delivery for residents, patients, interprofessional team members and family carers.

Through a rigorous process of reviewing and appraising the best available evidence, the RNAO has developed a best practice guideline which will support continence care delivery across a wide range of care settings.

The Canadian Nurse Continence Advisor Association (CNCA) congratulates the Registered Nurses' Association of Ontario (RNAO) on the near completion of the Best Practice Guideline (BPG), *A Proactive Approach to Bladder and Bowel Management in Adults*.

Kind regards,

Barbara Anderson, RN, BScN, MN  
President, CNCA



## NSWOCC

**Nurses Specialized in Wound, Ostomy & Continence Canada**

66 Leopolds Drive, Ottawa, Ontario, K1V 7E3

[www.nswoc.ca](http://www.nswoc.ca) • [office@nswoc.ca](mailto:office@nswoc.ca)

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August 12, 2020

Dr. Doris Grinspun, RN, MSN, PhD, LLD (hon), Dr (hc), FAAN, O.ONT.

Chief Executive Officer

Registered Nurses' Association of Ontario (RNAO)

Dear Dr. Grinspun,

The Nurses Specialized in Wound, Ostomy & Continence Canada (NSWOCC), is delighted to endorse the Registered Nurses' Association of Ontario's (RNAO) best practice guideline *A Proactive Approach to Bladder and Bowel Management in Adults, Fourth Edition*. NSWOCC commends RNAO on the development of this very important work. The guideline provides evidence-based recommendations for effective strategies to improve health outcomes and quality of care in adults who live with urinary incontinence, constipation and/or fecal incontinence, nationally and internationally. We appreciate RNAO's emphasis on alleviating stigma surrounding incontinence, patient engagement and the considerations of health equity throughout the guideline.

As you know, NSWOCC is focused on leading the advancement of specialized professional ostomy, wound and continence nursing care. NSWOCC is confident that RNAO's *A Proactive Approach to Bladder and Bowel Management in Adults, 4<sup>th</sup> Edition* BPG will enable nurses and the interprofessional team to provide collaborative, evidence-based and person-centred care to adults who live with urinary incontinence, constipation and/or fecal incontinence.

Congratulations on this excellent work!

Regards,

Chief Executive Officer, NSWOCC

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Philadelphia, Pennsylvania, USA

\*Simon Foundation's Governing Board



**THE SIMON FOUNDATION  
FOR CONTINENCE**

August 19, 2020

Dr. Doris Grinspun, RN, MSN, PhD, LLD (hon), Dr (hc), FAAN, O.ONT  
Chief Executive Officer  
Registered Nurses' Association of Ontario (RNAO)

Dear Dr. Grinspun,

On behalf of The Simon Foundation for Continence, I am pleased to endorse the Registered Nurses' Association of Ontario's (RNAO) best practice guideline *A Proactive Approach to Bladder and Bowel Management in Adults, 4<sup>th</sup> Edition*. I commend RNAO on this very important work to improve the lives of persons who live with urinary incontinence, constipation and/or fecal incontinence, nationally and internationally. We especially appreciate RNAO's emphasis on removing the stigma surrounding incontinence, emphasis on collaboration with patients and the considerations of health equity throughout the guideline.

As you know, The Simon Foundation for Continence is dedicated in promoting bladder and bowel health. The Foundation is confident that RNAO's *A Proactive Approach to Bladder and Bowel Management in Adults, 4<sup>th</sup> Edition* BPG will enable nurses and the interprofessional team to provide collaborative, evidence-based and person-centred care to adults who live with urinary incontinence, constipation and/or fecal incontinence.

We extend our congratulations on this excellent work!

Regards,

Elizabeth A. LaGro, MLIS  
Vice President, Communications and Education Services

Post Office Box 815, Wilmette, Illinois 60091  
847.864.3913 • Fax 847.864.9758 • [www.simonfoundation.org](http://www.simonfoundation.org)





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## Best Practice Guideline

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