Fall risk screening and assessment in older adults: an overview of clinical practice guidelines (CPGs) in Ontario

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For

The Ontario Fall Prevention Collaborative

October 11, 2022

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**Introduction**

Falls are a significant cause of morbidity and mortality among older adults.1-2 Falls and fall-related injuries among this population are associated with increased hospitalizations, placement into long-term care facilities and early death.3-5 Moreover, older adults who fall may also experience a range of negative outcomes affecting their health and quality of life, including pain, depression, loss of function, dependence, and fear of falling.6-7

The attendant societal and economic consequences of falls among older adults are substantial, with one study estimating that fall-related expenditures account for approximately 1% of total health care costs in developed countries.8 A recent study found that falls among older adults (age 65+) cost the Canadian health care system $5.6 billion in 2018.9

Falls among older adults constitute a growing global health challenge, given that the incidence of falls in this group is increasing, a phenomenon that is only partly explained by an aging population.10 It is anticipated that further increases in the number of falls and associated deaths and morbidities among older adults will occur due to the worldwide aging demographic trend.11

Effective fall prevention among older adults is dependent upon timely screening and assessment of risk and guidance regarding preventive interventions. In developed countries, fall risk screening and assessment and the development of tailored prevention plans are informed by clinical practice guidelines. Clinical practice guidelines (CPGs) are evidence-based recommendations, often created through expert consensus building processes, used by clinicians and other health care practitioners to ensure that the most appropriate course of action is taken to diagnose, manage and care for older adults at risk of falls.10, 12 Over the past two decades, a number of fall-related screening and assessment CPGs have been developed for various settings across the continuum of care (i.e., community, acute and long-term care settings) for older adults.13

Fall-related CPGs tend to deal with fall risk screening and fall risk assessment as two separate but related processes, although the terms are sometimes used interchangeably in the literature.13 In an effort to clarify the distinction, the Registered Nurses Association of Ontario defined screening as measures to identify individuals at risk of falling and determine the need for further evaluation, while assessment identifies the risk factors that can be targeted for intervention.14

Evidence-based fall risk screening and assessment CPGs play an integral role in improving the prevention and management of fall-related risks among older adults.14 However, there is a knowledge gap regarding the level of variation in the content of these guidelines and the level of agreement between the recommended best practices contained within the guidelines.10, 13

In Ontario, Canada’s largest province, efforts to foster a standardized approach to fall risk screening and assessment resulted in the creation of an Integrated Falls Prevention Framework and Toolkit by the provincial collaborative of Local Health Integration Networks (LHINs) in 2011.16 However, the adoption of the Framework across LHINs proved to be inconsistent, and over time the resulting void was filled with the development of a number of Ontario-based CPGs for specific settings (e.g., primary care, rehabilitative care) and audiences. The lack of a standardized, coordinated approach to fall risk screening and assessment in Ontario has been identified as a contributing factor to a fragmented system of fall prevention management that makes it challenging to ascertain what interventions are working, how interventions can be improved and where increased collaboration/coordination between key providers could optimize impact and efficiencies.17 Moreover, knowledge gaps regarding the degree of heterogeneity in the content of these guidelines make it difficult to ascertain the extent to which Ontario CPGs are adhering to recommended best practices for fall risk screening and assessment.

To address uncertainties regarding the utilization of fall risk screening and assessment CPGs in Ontario, the Ontario Fall Prevention Collaborative commissioned two reports in the fall of 2021. These reports are combined in the following document.

The first report summarizes key findings from the limited body of literature reviewing fall risk screening and assessment CPGs and combines these findings with an analysis of additional guidelines that were not included in previous reviews in order to better understand the nature and scope of fall-related CPGs, including areas of consensus as well as gaps and omissions. The report also notes key issues that need to be taken to ensure a more optimal approach to fall risk screening and assessment in Ontario. These include issues concerning the optimal utilization or adaptation of existing CPGs as well as the organization and system-level barriers that hinder a more seamless, standardized approach to fall risk screening and assessment for older adults across the continuum of care.

Building upon these findings, the second report provides a comparative analysis of select fall risk screening and assessment CPGs from Ontario and other Canadian jurisdictions (i.e., British Columbia and New Brunswick). Through a review of these CPGs and related documents (e.g., evaluations and pilot testing reports) combined with ten key informant interviews of stakeholders who were directly involved in CPG development, the second report provides an overview of:

* the processes undertaken to develop the CPGs (including evidence review/synthesis, incorporation of existing screening and assessment tools, involvement of experts and key stakeholder groups, and pilot-testing/trial implementation of CPG prototypes);
* the stakeholders and organizations currently utilizing the CPGs in Ontario (i.e., settings where the CPGs are being employed to assess fall risk and the health care professionals conducting the assessments);
* mechanisms in place for monitoring the use of CPGs and collecting feedback from users;
* perceived similarities and differences between CPGs;
* implementation challenges associated with CPGs and suggestions for addressing these challenges; and
* suggestions for achieving a more aligned, system-based approach to fall risk screening and assessment in Ontario.

The document concludes with a series of recommended next steps that the Ontario Fall Prevention Collaborative can take to address key implementation challenges and barriers while ensuring that the recommended components of CPGs are utilized in fall risk screening and assessment efforts throughout the province. These recommendations will be reviewed at a stakeholder consultation organized by the Collaborative in the winter of 2023.

**Report 1. An overview of fall risk screening and assessment CPGs:**

**commonalities, differences, and limitations**

Until recently, there were no syntheses of published fall risk screening and assessment CPGs across the care continuum. This deficit was rectified in 2021 with the publication of a scoping review by Williams-Roberts and colleagues,13 which was followed by the 2022 publication of systematic review of CPGs by Montero-Odasso and colleagues to guide the deliberations of the World Falls Guidelines (WFG) Task Force, which was created in 2019 to determine if new guidelines on fall prevention were required to reflect new evidence and clinical service challenges.18 As a result of the WFG Task Force’s deliberations, revised World guidelines for falls prevention and management for older adults were released in September 2022.19

The scoping review by Williams-Roberts and colleagues identified relevant CPGs through a comprehensive search strategy that included ten electronic databases (e.g., MEDLINE) and grey literature searches. Publications were included if they met the following criteria: 1. CPGs including older adults (i.e., 65 years +); 2. CPGs pertaining to settings across the care continuum (community, acute and long-term care); and 3. published in English between January 2008 to October 2018 in order to focus on the most current guidelines. CPG-related documents were excluded from the review if they: 1. focused on clinical or cost effectiveness; 2. addressed occupational, sport-related or intentional falls, 3. focused on consequences of falls (e.g., fall-related injuries); 4. pertained to the predictive accuracy of a CPG, or 5. were not accessible for full-text review.13

A total of 22 fall risk screening and assessment CPGs or best practice recommendations that met the authors’ criteria were selected for final review. These included four Canadian CPGs: fall prevention guidelines developed by the Registered Nurses’ Association of Ontario (RNAO)14 ; CPGs for community- dwelling adults developed by the Institut national de santé publique du Québec20; CPGs for fall prevention in assisted living developed by the British Columbia Ministry of Healthy Living and Sport21; and CPGs for older adults across the continuum of care created by the Winnipeg Regional Health Authority.22 The review also included ten CPGs from the United States23-32, as well as CPGs from Australia33, France34, Korea35, Singapore36, the Netherlands37, and the United Kingdom.38 Six CPGs received national endorsement and have been widely applied in their respective jurisdictions14, 23, 32, 33, 36, 38.

The review found similarities across the selected CPGs as well as some degree of heterogeneity. Two screening criteria for fall risk, a prior history of falls and gait and balance abnormalities, were applied either independently or separately in 19 of the 22 CPGs.13 These criteria follow the format proposed by the joint CPGs of the American Geriatric Society and British Geriatric Society.23 The authors perceived this finding as reassuring to health care providers and policy makers, given the well-established association between these criteria and increased risk of falls across care settings.13, 39-40 There was greater variance across CPGs regarding the recommended components that should be reviewed as part of a fall risk assessment for older adults across the continuum. CPGs generally supported the inclusion of the following: detailed fall history; medication review; balance, gait and/or mobility; vision; cognitive status; postural hypotension; and assessment of environmental hazards. The overlap in components across fall risk screening and assessment CPGs could serve as core domains for the future evaluation of guidelines across settings.13

Further insight into the common domains of fall risk screening and assessment CPGs was provided by the aforementioned systematic review conducted by Montero-Odasso and colleagues.18 A total of fifteen high quality CPGs were identified by three independent reviewers using the Appraisal of Guidelines for Research and Evaluation II (AGREE-II) criteria. The selected CPGs included two Canadian resources: the RNAO guidelines14, and a CPG for the secondary prevention of falls developed in 2003 at St. Joseph’s Healthcare in Hamilton, ON.41

The reviewers found that most of the selected guidelines strongly recommended risk stratification screening (using short questionnaires) and conducting gait and balance testing for individuals who screened positive. In addition, most CPGs included medication review, exercise interventions, environment modification, multi-factorial approaches, and the active management of osteoporosis and fractures as key components of fall prevention. Less frequently addressed domains of fall risk included vision or footwear intervention, physiotherapy referral and cardiovascular interventions.18

In Canada, an increased focus on fall prevention has fostered the development of comprehensive fall risk screening and assessment CPGs at the provincial and regional levels over the past decade. New CPGs have recently been developed by the provinces of British Columbia42 and New Brunswick43. The Centre for Effective Practice (CEP), which supports knowledge translation for primary care in Canada, developed guidelines to support physicians, primary care nurse practitioners and other health service practitioners, to prevent and manage falls among older adults.44

Within the province of Ontario, some Ontario health regions (previously known as local health integration networks (LHINs)) and other organizations have developed guidelines comprised of initial screening questions and more comprehensive multi-factorial assessments for patients diagnosed as ‘high risk’. These include CPGs developed by the then North East LHIN45 and Champlain LHIN (now part of Ontario Health).46 In 2021, the Rehabilitative Care Alliance, a province-wide organization established by LHINs to strengthen and standardize rehabilitative care in Ontario through better planning, ongoing evaluation and quality improvement, and the integration of best practices across the care continuum, released pathways to rehabilitative care for frail, community-dwelling older adults presenting to primary care or emergency departments post-fall. These pathways incorporate both initial screening measures and multifactorial domains for assessing fall risk.47-49

Table 1 illustrates the fall risk assessment components included in three recent Canadian CPGs: the BC Fall Prevention Risk Assessment and Management Guidelines for Community Dwelling Older Adults42, the Trauma New Brunswick Algorithm for Fall Risk Screening, Assessment and Intervention43, the Centre for Effective Practice Fall Prevention and Management Guidelines44, as well as the Ontario-based CPGs developed by North East LHIN45, Champlain LHIN46, and the Rehabilitative Care Alliance.48-49 The seven component categories were derived from the aforementioned scoping review of CPGs conducted by Williams-Roberts and colleagues.13  
**Table 1: Key Domains addressed Canadian Fall Risk Screening and Assessment CPGs**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Fall Risk Screening/ Assessment Component13** | **BC CPG42** | **NB CPG43** | **CEP CPG44** | **NE LHIN CPG45** | **Champlain LHIN CPG46** | **Rehabilitative Care Alliance Pathways48,49** |
| Prior history of falls (initial screening) |  |  |  |  |  |  |
| Gait and balance abnormalities  (initial screening) |  |  |  |  |  |  |
| Detailed fall history |  |  |  |  |  |  |
| Detailed evaluation of gait, balance and/or mobility |  |  |  |  |  |  |
| Medication review |  |  |  |  |  |  |
| Vision |  |  |  |  |  |  |
| Cognitive status |  |  |  |  |  |  |
| Postural (orthostatic) hypotension |  |  |  |  |  |  |
| Environmental assessment for hazards |  |  |  |  |  |  |

As Table 1 illustrates, there is broad homogeneity among the key components of Canadian fall risk screening and assessment CPGs, a finding that matched the scoping review of 22 additional CPGs that was not inclusive of these guidelines.13 There is, however, considerable variance among CPGs in the content, scope and level of detail regarding fall risk factors and prescribed interventions to address these factors.10, 13 Some CPGs provide extensive recommendations about intervention options, including critical appraisals of supporting evidence14, 18, while others are limited to ‘decision tree’ algorithms that delineate screening, assessment and intervention pathways for older adults at risk of falls.43, 48, 49 Some of the more recent Canadian CPGs go beyond the traditional menu of environmental hazards (e.g., lack of stair handrails) to address the broader social determinants of health, such as low income, social isolation, and lack of transportation, that are associated with an increased risk of falls.42, 43

While fall risk screening and assessment CPGs generally support the value of multifactorial risk assessment for high-risk patients as well as a multifactorial approach to fall prevention, there are differences regarding the content of these domains. For example, CPG recommendations on the use or medications, many of which come with increased risk of falls as a side effect among older adults, range from de-prescribing sedatives and other psychotropic drugs to performing a comprehensive medication audit.50 A systematic review of nine fall risk screening and assessment guidelines for community-dwelling older adults noted that the reliability of questions dealing with medication side effects in many CPGs may be limited as a result of these measures not collecting information about patient diseases necessitating medication use.15

Another area of variance between CPGs concerns the use of Vitamin D supplementation to reduce fall risk. A recent Korean effort to develop multifactorial fall risk assessment guidelines for community dwelling older adults, which included a systematic review of nine CPGs designed for this population, excluded Vitamin D supplementation from its final recommendations due to conflicting evidence regarding the association between Vitamin D and falls.15 The WFG Task Force recommended that Vitamin D supplementation to prevent falls should be reserved for those with Vitamin D deficiency.19

Inconsistent recommendations on Vitamin D supplementation were also found in the systematic review of 15 CPGs conducted by Montero-Odasso and colleagues. The selected CPGs also varied in the strength of recommendations addressing cognitive factors and fall prevention education, while recommendations on the use of hip protectors and digital technology (e.g., wearables) were often absent.18

CPGs also vary according to criteria included in fall risk screening algorithms and recommendations about how to best screen for gait, balance and mobility deficits. Some CPGs either embed specific gait and balance tests in their screening and assessment protocols or recommend the use of specific tests. These include the Timed Up and Go Test (TUG)51, the Berg Balance Scale52, and the Tinetti Performance-Oriented Mobility Test.53

Of these, the TUG test appears to be the most frequently used or recommended screening tool in CPGs.21, 23, 28, 31, 33, 43-45 The popularity of the TUG test has been attributed to its practical utility and relative ease of administration.13 But there is concern about the clinical utility of the TUG test, as studies have found that the test has low predictive validity.54-56 It should, however, be noted that insufficient ability to discriminate between older adults who do and do not fall is not limited to the TUG test: systematic reviews of the evidence have found that no standardized test consistently and reliably assesses fall risk in hospital and community settings.15, 57 This finding was recently confirmed in a 2022 ‘umbrella review’ of instruments assessing gait, balance and functional mobility.58 The review, which applied the  Risk of Bias Assessment Tool for Systematic Reviews (ROBIS) to 31 selected reviews of the evidence (including 11 meta analyses) concluded that no gait, balance or functional mobility assessment instrument used in isolation can predict fall risk in older adults with high certainty.58

Another key limitation of fall risk screening and assessment CPGs concerns the processes undertaken to develop them. Specifically, the perspectives of older adults with a history of falls have not been consistently incorporated in fall-related CPGs.18 As a result, some CPGs may not sufficiently reflect individual preferences for interventions or individual characteristics such as gender, frailty level, comorbidities or motivation.10, 18 The WFG Task Force emphasizes that the development of successful preventive interventions is contingent upon engaging older adults to better understand their beliefs, attitudes and priorities about falls.19

**Optimizing the use and effectiveness of fall risk screening and assessment CPGs:**

**key priorities for consideration**

Comprehensive, evidence-based CPGs for fall risk screening and assessment enable health care practitioners to make informed clinical decisions about the prevention and management of falls among older adult across the continuum of care. But additional work is needed to optimize the reliability and utility of these guidelines. This includes a greater focus on the core content of CPGs, the nature and scope of their application in key practice settings, and organizational and structural barriers limiting their use.

The limited predictive validity of the TUG test and similar measures14, 54-57, 58 raises the question regarding the efficacy of self report versus observational measures for fall prediction. This is a priority for further research and development that has the potential to create more streamlined algorithms and attendant time savings in health care settings. Emerging research on fall risk screening and assessment CPGs indicates that three measures – asking about fall history, asking about balance/gait difficulties, and observations of balance/gait – appear to be critical across all settings.13

Further work is also needed to identify the most critical components of CPGs for informing effective advice about fall prevention and management as well as intervention planning. While existing CPGs share a number of key core domains (see pp. 8-10), there is considerable variance in the specific risk factors noted as well as the level of detail these guidelines provide regarding risk factors, preventive interventions and supporting evidence.

At the same time, practitioners need to be aware of context: while a standardized ‘one-size fits all’ fall risk screening and assessment CPG may capture the essential elements of evidence-based practice, such a guideline may not reflect the varied circumstances, capacities and preferences of older adults across settings and jurisdictions.10, 13, 18 For example, older adults in different regions of the world may have different attitudes regarding exercise (a proven fall prevention intervention) and different preferences for types of exercise.10, 18

Further work is also needed on the optimal timing and frequency of screening and assessment for fall risk.13, 15, 57 Most of the CPGs that are focused on acute and long-term care settings recommend fall risk screening/assessment upon admission/initial contact and routinely thereafter.13 Some CPGs also indicate the need for fall risk assessment following significant changes in the health and functional status of older adults.14,21-22 But some studies have found that an increased risk of falls also occurs during a move to a new living environment.59, 60 CPGs need to provide greater specificity about the critical milestones related to fall risk where screening and assessment are warranted. The WFG Task Force recommends an ‘opportunistic case-finding’ approach to screening and assessment, where clinicians routinely ask about falls in their interactions with older adults. The Task Force also recommends that older adults in contact with healthcare for any reason should be asked, at least annually, if they have experienced one or more falls in the past year, and about the frequency, characteristics, context, severity and consequences of any fall(s).19

The development of more standardized approach to fall risk screening and assessment needs to strike a balance between the essential content domains of CPGs and the logistical and practical factors affecting their utilization across the continuum of care. Specifically, the administration of more comprehensive CPGs requires an investment of time and resources that may not be feasible in many care settings. For example, a survey of 102 emergency providers at a US hospital found that while a majority of respondents (82/102) recognized the importance of fall prevention, most (90%) were not willing to spend more than five minutes on fall risk assessment.61 An Ontario survey of health care practitioners found that over 22% of respondents identified time as a key barrier to screening older adults for fall risk.62

Last, additional effort is needed to reduce the gap between the recommended interventions for fall prevention embedded in CPGs and the reported fall prevention strategies utilized by older adults. A 2018 integrative review by Wilkinson and colleagues assessed seventeen studies on fall prevention strategies utilized by community dwelling older adults and their care providers. The actions reported by respondents only matched two evidence-based recommendations for preventing falls: home hazard assessment/modification and advice about measures to prevent falls. Another, potentially greater, concern was the low number of respondents who reported performing any type of exercise to prevent falls.63

Other barriers to compliance with recommended fall prevention interventions appear to stem from the very organizations and systems mandated to prevent falls. Several studies of organizational and community-level barriers to fall prevention have yielded consistent themes, including limited coordination and communication between key service providers, insufficient human and financial resources for fall prevention work, restrictive organizational mandates, and ‘siloing’ within health care systems that discourage the cross-disciplinary collaboration needed to address complex issues such as falls.64-66 These findings suggest that any efforts to improve the quality and consistency of fall risk screening and assessment CPGs will not yield beneficial results until the underlying systemic barriers affecting their use across the continuum of care are addressed.

The increased availability of fall-related CPGs in Canada and elsewhere is an encouraging trend that has the potential to foster shared responsibility and increased capacity for fall risk screening and assessment for older adults across the continuum of health care settings. Further work on the aforementioned areas will help to increase the utility of these guidelines for the early detection of fall risk and the development of appropriate, evidence-based fall prevention interventions for older adults.

**Report 2. The development, utilization, and monitoring of CPGs for assessing fall risk in Ontario: results of an environmental scan and key informant interviews**

**Methodology**

Eight fall risk assessment CPGs (or related resources) - six of which were developed in Ontario - were selected for review. These include:

* Algorithm for Fall Risk Screening, Assessment and Intervention, Trauma New Brunswick.43
* British Columbia Ministry of Health. Fall Prevention: Risk Assessment and Management for Community-Dwelling Older Adults.42
* Centre for Effective Practice. Falls prevention and management.44
* Champlain Fall Prevention Steering Committee Algorithm.46
* Rehabilitative Care for Older Adults Living With/At Risk of Frailty Framework.67 (**NB:** Although this resource is not a fall risk assessment CPG, it provides best practice guidance on addressing mobility and falls as a key domain of rehabilitative care and incorporates recommended fall risk screening and assessment tools and guidelines).
* Rehabilitative Care Alliance. Pathway to rehabilitative care for frail older adults in the community presenting to Primary Care post-fall.48
* Rehabilitative Care Alliance. Pathway to rehabilitative care for frail older adults in the community presenting to Emergency Department post-fall and not requiring acute hospitalization.49
* Registered Nurses’ Association of Ontario (RNAO) Preventing and Reducing Injury from Falls, Fourth Edition (2017).14

Semi-structured interviews were conducted with nine respondents directly involved in the development of these CPGs and related resources. A tenth interview was conducted with a representative from a multi-stakeholder collaboration in Saskatchewan that had initially intended to develop a CPG but chose to adopt another approach to supporting health professionals assessing fall risk in that province.68 A copy of the interview protocol is provided in Appendix A, and the list of interview respondents is provided in Appendix B.

Interview questions addressed topics related to the purpose of the report (see page 5). With the respondents’ consent, the interviews were digitally recorded, and full transcripts of each recording were prepared in Word for analysis. The transcripts were uploaded to NVivo 1.0, a qualitative data analysis software, for the creation of coding frames to identify recurring themes and issues.

**Results**

**CPG development, utilization and monitoring**

Table 2 summarizes the processes undertaken to develop the selected CPGs, including evidence reviews, the review and/or incorporation of existing fall risk screening tools and CPGs, stakeholder engagement and consultation and pilot testing (if applicable). Table 3 summarizes the current utilization of these CPGs by settings (in their respective jurisdictions) and practitioner groups as well as efforts to monitor utilization and obtain user feedback.

**Table 2: Overview of CPG Development Processes**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Clinical Practice Guideline (CPG)** | **Review of evidence to develop CPG** | **Existing Fall Risk Screening Tools and CPGs reviewed/incorporated** | **Feedback from Stakeholders/Experts** | **Pilot Testing/**  **Trial Implementation of CPG** |
| Algorithm for Fall Risk Screening, Assessment and Intervention, Trauma New Brunswick | Review of existing CPGs and related resources, including screening tools | CDC-Steadi Alogrithm (2017)  AGS/BGS CPG (2010)  Staying Independent Checklist | Draft of Algorithm reviewed by New Brunswick Medical Society  Full CPG currently under development. Will involve consultations with New Brunswick Medical Society | Pilot testing not conducted. |
| British Columbia Ministry of Health. Fall Prevention: Risk Assessment and Management for Community-Dwelling Older Adults | Review of existing screening tools and CPGs (including grey literature search) conducted by family physician on advisory committee for Medical Services Commission formed to develop CPG | Most influential CPGs included:  CDC-Steadi Alogrithm (2017)  RNAO Preventing and Reducing Injury from Falls (2017)  AGS/BGS CPG (2010)  Staying Independent Checklist | Draft of CPG sent for review to all physicians in the province via Doctors of BC (100 responses)  52 older adults reviewed draft of CPG. | Pilot testing not conducted. |
| Centre for Effective Practice. Falls prevention and management | Search of published and grey literature, including systematic reviews and environmental scans of existing CPGs and screening tools  AMSTAR 2 critical appraisal tool used to guide selection of systematic reviews | Focus on highest quality CPGs available in English and published within pat five years (with exceptions) | Health care providers and other relevant stakeholders engaged throughout the CPG development process, using a user-centred design methodology to test the usability of tools from a provider perspective | Usability sessions on draft CPG conducted with targeted end users (Ontario primary care providers) |
| Champlain Fall Prevention Steering Committee Algorithm | Literature search of fall risk screening and assessment tools conducted by Algorithm Working Group, including reps from public health, home, community and primary care. | AGS/BGS CPG (2010) selected and adapted for use.  Staying Independent Checklist selected as screening tool for incorporation into CPG.  Timed up and Go (TUG) and chair stand test incorporated into CPG | CPG developed by Algorithm Working Group composed of several steering committee members and clinicians from community agencies representing all regions of the Champlain LHIN. | CPG pilot tested at four sites, including two community health centres, a private practice and a family health team. 108 patient at these sites assessed using CPG and Staying Independent Checklist  In addition, a CPG education and feedback session was held with health care providers in Renfrew, ON. |

**Table 2: Overview of CPG Development Processes (Continued)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Clinical Practice Guideline (CPG)** | **Review of evidence to develop CPG** | **Existing Fall Risk Screening Tools and CPGs reviewed/incorporated** | **Feedback from Stakeholders/Experts** | **Pilot Testing/**  **Trial Implementation of CPG** |
| Rehabilitative Care for Older Adults Living With/At Risk of Frailty Framework | Review of existing frameworks and guidelines related to key domains of rehabilitative care, including mobility and falls  Systematic and scoping reviews also used to identify best practices | Stay on Your Feet Fall Risk checklist  Timed Up and Go (TUG)  Tinetti Balance Scale  Berg Balance Scale  AGS/BGS CPG (2010)  NICE Falls in Older People Guideline (2013)  RCA Pathways  RNAO Preventing and Reducing Injury from Falls (2017) | Input on drafts of framework provided by Rehabilitative Care for Older Adults Living With/At Risk of Frailty Subject Matter Expert Group and the Geriatric Rehabilitative Care Subject Matter Expert Focus Group. | Pilot testing of Framework completed by North East Specialized Geriatric Centre. |
| Rehabilitative Care Alliance. Pathway to rehabilitative care for frail older adults in the community presenting to Primary Care post-fall.  Rehabilitative Care Alliance. Pathway to rehabilitative care for frail older adults in the community presenting to Emergency Department post-fall and not requiring acute hospitalization. | Literature review of existing CPGs as well as fall prevention interventions | Review of numerous screening and assessment resources, including:  Stay on Your Feet Fall Risk checklist  Time Up and Go (TUG)  Berg Balance Scale  Clinical Frailty Scale  Canadian Fall Prevention Curriculum  AGS/BGS CPG (2010)  Champlain Fall Prevention Steering Committee Algorithm | Draft pathways reviewed by stakeholders, including emergency physicians, geriatricians, primary care physicians, nurses and inter-professional teams  Draft pathways validated by RCA Frail Senior Advisory Group and RCA Patient and Caregiver Advisory Group. | Pathways pilot tested in three Ontario regions: Hamilton, Thunder Bay and Sudbury.  Pilot test based on Plan-Do-Study-Act (PDSA) cycle, with creation of quality improvement plans at close of each PDSA.  Participating sites also conducted clinician orientation/education sessions on the Pathways |
| RNAO Preventing and Reducing Injury from Falls, Fourth Edition (2017) | Search of websites for guidelines and other relevant content published between July 2010 and May 2016  12 international appraised guidelines using the Appraisal of Guidelines for Research and Evaluation Instrument II (AGREE II)  Systematic reviews of evidence retrieved using multiple databases (e.g., CINAHL, MEDLINE, Cochrane Database of Systematic Reviews) and independently assessed by multiple reviewers using inclusion/exclusion criteria | Five guidelines (rated moderate or strong using AGREE II) selected to inform the recommendations:  College of Occupational Therapists. (2015).  NICE Falls in Older People Guideline (2013)  Papaioannou et al (2012)  U.S. Preventive Services Task Force. (2012)  Workgroup of the Consensus Conference on Vitamin D for the Prevention of Falls and their Consequences. (2014) | Draft recommendations reviewed by diverse panel of experts across different sectors, settings and roles within the health care system  All interested stakeholders invited to review and provide feedback on draft recommendations | No pilot test  Extensive stakeholder engagement to finalize recommendations |

**Table 3: CPG Utilization and Monitoring**

|  |  |  |  |
| --- | --- | --- | --- |
| **Clinical Practice Guideline (CPG)** | **Setting(s) where CPG is utilized** | **Health care professionals using CPG** | **Measures in place for monitoring use of CPG and collecting feedback from users** |
| Algorithm for Fall Risk Screening, Assessment and Intervention, Trauma New Brunswick | Primary health care settings | Primary health care providers (e.g., family physicians, nurse practitioners) | No mechanism for monitoring use of algorithm and collecting feedback from stakeholders at present  Monitoring and evaluation plan to be implemented in consultation with New Brunswick Medical Society when full CPG is developed |
| British Columbia Ministry of Health. Fall Prevention: Risk Assessment and Management for Community-Dwelling Older Adults | Developed specifically for community-dwelling older adults but also used in health care facilities  CPG distributed by Regional Health authorities | Physicians, nurse practitioners, allied health professionals | Monitoring and evaluation plan in progress |
| Centre for Effective Practice. Falls prevention and management | Primary care settings in Ontario | Family physicians, primary care nurse practitioners, interprofessional primary care team members | Downloads of CPG tracked  Pop-up website survey includes questions regarding utilization of CPG  Opportunity for user feedback on educational sessions for CPG, including virtual academic detailing (1-1 education) |
| Champlain Fall Prevention Steering Committee Algorithm | Community dwelling older adults  Outpatient settings in ambulatory care (Staying Independent checklist)  Hospitals (algorithm converted into an EMR)  Emergency departments  Primary care practices | Family physicians, primary care nurse practitioners, interprofessional primary care team members, Geriatric Emergency Management (GEM) nurses | Utilization of algorithm by GEM nurses tracked  Steering committee attempted to monitor algorithm use by primary care users  Downloads of Staying Independent Checklist from Regional Geriatric Program of Eastern Ontario (RGPEO) can be tracked |
| Rehabilitative Care for Older Adults Living With/At Risk of Frailty Framework | Rehabilitative care settings | Rehabilitative care professionals and other clinicians across all locations of care who deliver care as part of the rehabilitative care team  Operational leaders responsible for health care program development and performance that includes rehabilitative care | In progress. Part of ongoing implementation planning |

**Table 3: CPG Utilization and Monitoring (Continued)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Clinical Practice Guideline (CPG)** | **Setting(s) where CPG is utilized** | **Health care professionals using CPG** | **Measures in place for monitoring use of CPG and collecting feedback from users** |
| Rehabilitative Care Alliance. Pathway to rehabilitative care for frail older adults in the community presenting to Primary Care post-fall.  Rehabilitative Care Alliance. Pathway to rehabilitative care for frail older adults in the community presenting to Emergency Department post-fall and not requiring acute hospitalization. | Rehabilitative care  Primary care  Emergency departments  Meant to be utilized across the continuum of rehabilitative care, including home and community care and outpatient clinics | Inter-professional (in keeping with best practices for geriatric rehabilitation), including GEM nurses, nurse practitioners, physiotherapists, occupational therapists, dietitians, doctors, geriatricians. | As part of pilot test, clinicians utilizing Pathways completed a baseline survey and completed 3, 3 month PDSA cycles, which tracked at least ten randomly identified patient (per site) from initial visit with the Emergency Department (ED) or Primary Care, through to discharge from rehabilitative care  Patients complete patient experience questionnaire  Analysis of data at end of each PDSA cycle informs action plan |
| RNAO Preventing and Reducing Injury from Falls, Fourth Edition (2017) | Heavily used in long-term care, hospitals and other settings, both in Ontario and internationally | Practice recommendations directed primarily toward nurses who provide direct clinical care to adults at risk for falls across the continuum of care. Secondary audience of the practice recommendations includes other members of the interprofessional team who collaborate with nurses to provide comprehensive care.  Education recommendations directed at individuals and organizations responsible for education of healthcare providers (e.g., educators, quality improvement teams, managers, administrators, academic institutions, and professional organizations.  Organization and policy recommendations directed at managers, administrators, and policy-makers responsible for developing policy or securing supports required within health-care organizations that enable the implementation of best practices. | Primarily through Best Practices Spotlight Organization (BPSO) program, where organizations enter into a formal agreement with RNAO to systematically implement the recommendations.  RNAO supports BPSO organizations with monitoring and evaluation of recommendations  As of 2019, RNAO launched a BPSO program designed for Ontario Health Teams, some of which are working with RNAO to implement the fall prevention recommendations |

**Perceived similarities and differences between CPGs**

When asked how their CPGs were similar to other resources, respondents noted parallels between the content domains and structure of other CPGs that were examined during the development process (see Table 2) as well as other CPGs with which they were acquainted. Sample responses included:

*“Probably the evidence base would be the most consistent thing. In addition to doing our own independent process, we also look at the evidence base used in other prominent Ontario resources….And we always try to align as much as possible with other things that exist in the health care system that primary care providers are looking at, so they’re not getting mixed messages from different organizations.”*

*“The New Brunswick algorithm shares similar features with the BC guidelines and the CDC, 2017 version…..and the ‘grand daddy’ of them all – the 2010 British and American Geriatrics Society guidelines.”*

*“So I think that we* [The Champlain Fall Prevention Steering Committee] *were early in terms of developing a pathway in Ontario, but as I said North East LHIN did something very similar….I do think that what BC has done is similar to ours. New Brunswick is very similar to ours. The Centre for Effective Practice – theirs is very similar to ours.”*

The perceived homogeneity among the key components of Canadian fall risk screening and assessment CPGs is not surprising, given that recent scoping and systematic reviews have found broad consensus in the key content domains of CPGs.13, 18 Current CPGs recognize and reflect the evidence base supporting the need for a comprehensive, multi-factorial approach to assessing fall risk. As one respondent noted,

*“I think and expect our Guideline is similar in that it looks at a multifactorial risk assessment from a variety of perspectives. So needing to take into account not just, ‘oh, did they fall because they tripped on something?’ It’s really from a comprehensive geriatric risk assessment that looks at all aspects.”*

When describing the ways in which their CPGs differed from other resources, respondents cited two key factors: the intended audience of the CPG, and the creation of resources and supports to enable effective use of the CPG.

As Table 2 illustrates, some CPGs were developed for specific groups: the Centre for Effective Practice CPG was created for the primary care sector, and the Rehabilitative Care for Older Adults Living With/At Risk of Frailty Framework and Rehabilitative Care Alliance Pathways were developed for use in rehabilitative care settings. In describing the Pathways CPGs, one respondent noted that:

*“Ours probably differs in that it is very much developed with a rehab lens in mind….it’s looking at how do we mitigate the next fall and how do we make sure that the risk factors we identified are addressed. But really integrating a rehab care approach to ensure there’s enhanced functional status of the individual in the community.”*

By contrast, two CPGs, the British Columbia Ministry of Health. Fall Prevention: Risk Assessment and Management for Community-Dwelling Older Adults and the Champlain Fall Prevention Steering Committee Algorithm, explicitly identified community dwelling older adults as a primary audience. In the case of the latter resource, the Staying Independent Checklist portion of the Champlain CPG was cited as a unique feature that enables older adults to self-assess their fall risk.

*“We did actually give people a tool and we wanted the tool to be used by older people themselves….So for a senior it’s about the Staying Independent Checklist….and then for the regulated health professionals and physicians, it’s about the assessment part of the algorithm.”*

Respondents from two organizations, the Registered Nurses’ Association of Ontario and the Centre for Effective Practice, felt that the most distinctive feature of their CPGs was a focus on resources and supports that extended beyond fall risk assessment to enable the implementation of preventive interventions.

*“So I would say the main difference between our tool and other clinical practice guidelines is that our tool really includes the ‘how to’. The other guidelines are very much the ‘what’ – what should providers be doing? And our tool takes those recommendations and then builds out the ‘how to’ around it.”*

*“Well, I guess part of it is that we have not only the guidelines….but we have a whole system of support built in to ensure the implementation of the guidelines and also the long-term evaluation of guidelines…We have the Best Practice Guidelines Order sets….and then we have other implementation tools…a condensed version of the recommendations you can access on your Smartphone, health education fact sheets……So we really have many tools that help people actually use the guidelines.”*

**Perceived barriers to effective CPG utilization**

Research on the barriers to the use of fall risk screening and assessment CPGs is limited, comprised mainly of qualitative studies in primary care settings. The most frequently cited barriers to fall risk screening and assessment include a lack of knowledge, lack of staff training, lack of motivation, time requirements, logistical challenges (e.g., scheduling), clinician reimbursement, lack of awareness about the importance of fall prevention, and a low degree of importance accorded to fall prevention relative to other geriatric care priorities.69-72

Respondents’ perceptions of the barriers to effective CPG utilization mirrored most of the findings of the research literature. A lack of time for comprehensive fall risk screening and assessment was the most frequently noted impediment:

*“I think the one that comes to mind as the biggest challenge or barrier is the amount of time that they* [CPGs] *take. So I think a lot of falls risk tools and guidelines offer a very comprehensive process that is not feasible for how our primary care system is set up. And so as a result it is not possible for a lot of providers to fit them in.”*

*“So the fact that staff are strapped for time. Like on admission, there are so many other competing things that they need to assess for, especially if somebody is acutely ill. It shouldn’t happen, but it* [fall risk assessment] *sort of falls to the lower end of priorities.”*

Other barriers noted by respondents that matched the findings of previous research include lack of staff training, logistical issues, including limited availability of skilled assessors on a 24/7 basis in health care facilities, physician reimbursement issues and a lack of awareness about the preventable nature of falls. As one respondent noted, this belief often extends to clinicians serving older adults.

*“Many people don’t know that falls are preventable, and that includes people with clinical backgrounds. There’s still a prevailing belief that falls result from accidents and accidents happen….when we first started presenting to the guideline advisory committee, the members of it, all of whom have medical degrees, were shocked to hear about the burden of falls, that falls were preventable, and that there were guidelines that already existed.”*

One identified challenge that was not as prevalent in the literature concerns the mindset of older adults undergoing fall risk assessment. Several respondents noted that the recipients of fall risk assessment, many of whom may be acutely ill, may not realize the full benefits of assessment-related advice to avert future falls due to ‘information overload.’

*“The other issue we found was that the patients themselves were often very overwhelmed when they first came in. And so sometimes what would happen is that a lot of these CPGs were kind of throwing things at patients right away…and unfortunately what happens is that the patients are so overwhelmed they’re not able to take in what’s been given to them.”*

*“As a physician you’re telling them to do twelve things, and you’re asking for an issue. Things are going to be dropped. Things might fall through the cracks.”*

**Solutions to overcoming barriers**

Respondents offered a range of ideas for surmounting the barriers to effective fall risk screening and assessment. One of the key emergent themes concerned the ‘normalization’ of fall risk assessment as a regular preventive health measure. Specifically, communication campaigns are needed to encourage older adults to proactively schedule fall risk screening and assessment with their health care providers on a regular basis.

*“I think the other piece is also just normalizing fall risk assessment and prevention….this isn’t like diabetes or chronic pain or something that a patient proactively books an appointment with their primary care provider to talk about….it’s something that should be brought up at age 65 and every year after that.”*

*“And I also think raising awareness with the public, understanding that falls and injuries from falls are not normal. You might not prevent all the falls, but if you can prevent fall-related injuries you’re making progress.”*

One respondent who identified the COVID-19 pandemic as a major impediment to fall risk assessment (*“We were told…that because of the pandemic physicians are exhausted. They don’t want anything new to change their practice.”*) went on to describe how the pandemic could potentially be leveraged within the current health policy climate to build increased commitment to fall risk assessment:

*“Older adults are staying home to avoid COVID-19 and don’t have the same engagement in their communities – not going to exercise classes. We know it’s quite likely that falls and the risk of falls is increasing, and that people’s strength is deconditioning….but what would help people to deal with that? All of the same things that would help lower the risk of falls!....So I feel like we need to align more with those instances and recognize that the policy window is sort of where you make it.”*

Respondents also emphasized the need to raise awareness of the benefits of fall risk screening and assessment to front-line providers, who may not be cognisant of the need for a comprehensive approach to screening for fall risk.

*“Most of the people who are working front line don’t actually know, for example, what the RNAO guidelines are……They just have a sheet and a chart. They don’t know the background or anything about that….We really have to come together as a team and get clients and residents involved and communicate what the risk factors are.”*

*“And I think the Ontario Health Teams need to understand it as well. If they don’t support it, if the Ministry doesn’t support it, it’s not going to happen….I think OHTs need to push up to the Ministry to enable doctor’s practices to undertake this* [fall risk screening and assessment].”

Changes in health human resources policies that increase access to fall risk screening and assessment were also noted as potential solutions. For example, one respondent described how extending GEM nurse availability enabled more older adults to be assessed for fall risk.

*“From a health human resources standpoint, often people who fall don’t necessarily come during regular working hours. So often the people who are using these CPGs are there Monday to Friday from 8 to 4, that kind of thing, right? So people who are coming in the evenings or on weekends, and so we need to find a way to be able to ensure that these CPGs are being utilized…..one place actually switched one of their GEM nurse times….so that the GEM nurse was there to be able to support people who were coming later into the evening….So we need to find ways to be able to support at all times”*

One obvious solution to addressing the time barrier to fall risk screening and assessment is to develop more circumscribed guidelines. There were mixed views about the appropriateness of this option. While one respondent supported the notion of *“choosing things that are more practical and providing ways of breaking fall risk assessment into smaller, more manageable pieces,”* a clinician cautioned against *“allowing physicians to influence the development of algorithms. They will make it so simple that it might lose its value….you don’t want to limit effectiveness in the hopes of getting more buy-in”.*

**Recommendations for a more aligned, system-based approach to fall risk screening and assessment: respondent perspectives**

Studies of systemic barriers to fall risk screening and assessment have identified recurring issues, including limited coordination and communication between key service providers, insufficient human and financial resources for fall prevention work, restrictive organizational mandates, and ‘siloing’ within health care systems that impedes the cross-disciplinary collaboration needed for effective fall prevention.69-72 These findings suggest that any efforts to improve the quality and consistency of fall risk screening and assessment CPGs will not yield beneficial results until a more aligned, integrated system supporting their implementation is established.

Respondent suggestions regarding actions to foster a more aligned, system-based approach to fall risk screening and assessment fell into several themes. First, respondents cited the need for improved communication between key stakeholders, including the providers of fall risk screening and assessment. The need to involve Ontario Health Teams was noted as being of particular importance given their key role in current health system reform:

*“Well, I think clarity in what the processes are and communicating that really well. And looking at the appropriateness in different sectors because there is some nuance there…..I think the Ontario Health Teams is one way to support this vision. So being clear and communicating in a variety of ways. And looking at some of the barriers, what the barriers might be to implementation.”*

*“Well, I think conversations with the Ontario Health Teams is key….the mechanism really, given the focus from the government, is looking at care delivery through Ontario Health Teams.”*

There was consensus that the development of more standardized measures and indicators should be the focus of consultation with key stakeholder groups. This was seen as critical to ensuring greater alignment among providers of fall risk screening and assessment.

*“If there is an opportunity for common outcome measures that are comparable across regions I think that would be helpful.”*

*“The other piece would be measurement within the Ontario Health Teams and looking at those indicators and outcome measures. I think it’s important for ensuring that OHTs are measuring the same things.”*

One respondent described how more standardized indicators of fall risk screening and assessment would also generate data to build the case for greater investment in fall prevention work.

*“I think data can help to drive decisions…But if we could somehow link the data around admissions to hospitals and community care to the results of a fall, and long term care admissions to falls and bring that back to collecting data around how screening is done and how much fall assessment is done…so we’ve increased the number of screening and assessments that are done and we’re actually seeing a reduction in the number of admissions to hospital. If we could match those two together maybe the message would come across that this is actually worthwhile.”*

Some respondents envisioned a more ambitious consultation approach that extended beyond screening and assessment indicators. Communications with key provider groups could provide an opportunity to reach consensus around divergent content domains of fall risk screening and assessment CPGs. This does not necessarily entail the creation of a new standardized CPG; rather, it could be an opportunity to reach consensus about the key domains of fall risk assessment that should be provided to all older adults across the continuum of care.

*“With Ontario, maybe working towards something specific. I mean part of the reason why we wanted to do our specific guideline was also because it would raise the profile of falls as something to be prevented, and also to provide a way to get consensus…..So we have colleagues who are very invested in hip protectors and others say, ‘well, what’s the point?’….you have those conversations and there’s a decision to be made and ultimately it gets resolved. So maybe it’s not a guideline…..like maybe it’s not an Ontario-specific guideline….but I feel it has to be something concrete that everyone agrees on.”*

Recommendations for a more aligned, integrated approach to fall risk screening and assessment were qualified with the acknowledgement that the inherent features of Ontario’s health care system were not conducive to the achievement of this vision. Specifically, the lack of a formal mandate for greater alignment, the diversity of stakeholders, and the structure of the Ontario Fall Prevention Collaborative itself pose challenges to the adoption of easy, short-term solutions to a more cohesive, system-based approach.

*“It’s tough in large provinces like Ontario with so many different players and health authorities.”*

*“It’s very hard to bring people together on a kind of volunteer basis and suggest that people who are all at different points in their work come to a consensus. I think it’s easier when mandated from a Ministry or Ontario Health…..I think in Ontario it’s hard for people who come together on a volunteer basis to work together. They all have different funding sources and timelines and priorities. I think it’s very hard to force cohesion across a group like that without a mandate to do so.”*

**Next steps**

Going forward, there are several actions that the Ontario Fall Prevention Collaborative could undertake to ensure that the fall risk screening and assessment CPGs utilized throughout the province are implemented. As suggested in the previous report, the Collaborative has a potential role to play in this by leading a consultation with fall risk screening and assessment providers, including Ontario Health Teams, to seek input regarding their key challenges and priorities related to fall risk screening and assessment, resolve outstanding issues, and develop workable solutions.

One key issue that could be resolved through these consultations concerns the need to incorporate the three critical measures in all fall risk screening for older adults**.** As was noted in the previous report, research indicates that three key indicators – asking about fall history, asking about gait/balance difficulties and observations of balance gait – are critical screening measures of fall risk across all health care settings.13 At minimum, practitioners ascertaining the fall risk of older adults, including Ontario health teams (OHTs), should include these measures into their screening protocols.

Further work is also needed to ensure alignment between emergent fall prevention indicators and fall risk screening and assessment CPGs utilized in Ontario. Public Health Ontario is currently piloting fall prevention indicators (both fall and programmatic-focused) for the public health sector. The identification of fall-related and programmatic fall prevention indicators for the primary care sector is also planned and will be part of the upcoming stakeholder consultations. The Collaborative should work to ensure that these indicators align with the fall risk screening and assessment CPGs utilized in Ontario, including related algorithms and pathways. This work could be expanded to include the development of an implementation plan specifying how the indicators can support ongoing monitoring and inform intervention planning and evaluation.

Last, stakeholder consultation sessions could include further discussion on the myriad of barriers hindering fall risk screening and assessment among older adults as well as potential solutions. All of the evidence-based screening and assessment tools and resources noted in this report share similar content domains. But overcoming the organizational, social, economic and system-level factors impeding their application remains a perennial challenge.

It is hoped these suggestions will guide the development of a feasible action plan that the Ontario Fall Prevention Collaborative can implement to support a more standardized, aligned approach to fall risk screening and assessment across the continuum of care in Ontario. These initial suggestions will undergo further refinements as the Collaborative proceeds to engage with the range of stakeholders working in the community and primary care sectors.

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**Appendix A: Fall risk assessment CPG key informant interview protocol**

**Introduction:**

Good morning/afternoon, this is Brian Hyndman, the research consultant who is conducting this interview on behalf of the Ontario Fall Prevention Collaborative. Thank you for agreeing to be interviewed.

Just to recap, the interview should take between 30 and 45 minutes to complete. Your participation is voluntary.

Before we proceed further I would like you to answer the following questions related to your participation in the interview:

* Have you read the information provided in the initial email? (Yes/No)
* Do you have any questions related to the interview? (Yes/No)
* Have these questions been answered to your satisfaction? (Yes/No)
* Do you agree to participate in this interview knowing that your participation is voluntary and that you can withdraw your consent by informing me? (Yes/No)
* Do you give your permission to have this interview recorded for the purposes of accuracy and data analysis? (Yes/No)
* Do you give your permission for anonymous quotations from your interview to be included for thematic/illustrative purposes in the project report? (Yes/No)
* Would you like to review a transcript of your interview? (Yes/No)
* Do you have any additional questions?

Thank you for your responses. Let’s proceed with the interview questions.

1. Please tell me a bit about the process you undertook to develop your fall risk assessment CPG.

* review of evidence
* incorporation of existing screening tools
* incorporation of existing assessment tools
* feedback from stakeholders and experts
* pilot testing/trial implementation

1. What stakeholders/organizations are currently utilizing your CPG to assess fall risk?

* settings where CPG is being used (e.g., acute care, clinical, long-term care)
* health care professionals using CPG (e.g., nurses, physiotherapists)

1. Do you have mechanisms in place for monitoring the use of your CPG and collecting feedback from stakeholders? If ‘yes’, please describe.
2. In your opinion, what does your CPG have in common with other fall risk assessment CPGs? How does it differ from other CPGs?
3. What do you feel are the main challenges associated with the effective use of fall risk assessment CPGs?
4. What suggestions do you have for addressing these challenges?
5. One of the priorities of the Ontario Fall Prevention Collaborative is to achieve a more aligned, system-based approach to fall risk screening and assessment in Ontario. In your opinion, what needs to happen in order to realize this vision?
6. Is there anything else regarding fall risk assessment CPGs I did not cover in the previous questions you would like to add for the record?

Thank you very much for your participation. We appreciate the time you took to offer your opinions and insights.

**Appendix B: List of interview respondents**

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| --- | --- | --- | --- |
| **Name** | **Position** | **Organization** | **Interview Date** |
| Denise Beaton | Senior Policy Analyst,  Injury Prevention and Healthy Settings | British Columbia Ministry of Health | March 29, 2022 |
| Chris Bidmead | Chair (Former) | Champlain Fall Prevention Steering Committee | March 24, 2022  (joint interview with  Taryn Mackenzie) |
| Lindsay Bevan | Director | Centre for Effective Practice | March 22, 2022 |
| Kelly Kay | Executive Director | Provincial Geriatrics Leadership Ontario | March 25, 2022 |
| Daphne Kemp | Fall Reduction and Injury Prevention Coordinator (Former) | Saskatchewan Health Authority, Saskatoon Area | April 6, 2022 |
| Charissa Levy | Executive Director | Rehabilitative Care Alliance | April 13, 2022  (joint interview with Gabrielle Sadler) |
| Dr. Richard Louis | Injury Prevention Specialist | Trauma New Brunswick | March 22, 2022 |
| Taryn Mackenzie | Advanced Practice Nurse | Regional Geriatric Program of Eastern Ontario and Champlain Fall Prevention Steering Committee | March 24, 2022  (joint interview with  Chris Bidmead) |
| Susan McNeill | Associate Director,  Guideline Implementation and Knowledge Transfer,  International Affairs and Best Practice Guidelines Centre | Registered Nurses’ Association of Ontario | April 6, 2022 |
| Gabrielle Sadler | Project Manager | Rehabilitative Care Alliance | April 13, 2022  (joint interview with  Charissa Levy) |