

APRIL 2020

# SCREENING AND ASSESSMENT TOOLS FOR FALLS IN OLDER ADULTS IN ONTARIO



**Ontario Neurotrauma Foundation**

*Fondation ontarienne de neurotraumatologie*

# BACKGROUND

In November 2018 a Think Tank of Fall Prevention leaders from across health care sectors and regions in Ontario, was convened through the leadership and support of the Ontario Neurotrauma Foundation (ONF). This group discussed and prioritised the findings of the Environmental Scan on Fall Prevention Best Practices and Initiatives in Ontario presented by Dr Brian Hyndman and consequently formed a Collaborative to move this agenda further.

The Ontario Fall Prevention Collaborative is a large group of professionals (between 25 to 30) comprised of representatives from key organizations involved in the planning and implementation of fall prevention interventions in Ontario. The Collaborative provides guidance on the work that needs to be accomplished for the establishment of a system-based approach to fall prevention in older adults in Ontario, and is working in two areas: data and measurement as well as fall prevention screening and assessment tools to support a consistent provincial evidence-based approach.

The Ontario Fall Prevention Collaborative – Knowledge Resource Working Group aims at identifying and reviewing the tools used in Ontario to screen and assess for falls in older adults across the continuum of care, in order to have a collective understanding of the work being done across the province. In the next phase, the group will seek more detailed information (e.g. context, gaps, etc.) about the tools to make recommendations to support the use of specific tools across the province that could provide some ability to track effectiveness of interventions across the continuum.

## Issues

In Ontario, fall prevention initiatives for older adults, vary in their scope, approach, implementation and measurement of outcomes. The heterogeneous, fragmented nature of fall prevention efforts makes it difficult to know which interventions and tools are working, how existing interventions can be improved and where a greater investment of resources or an increased level of coordination and collaboration between key stakeholders is required to maximize impact of interventions.

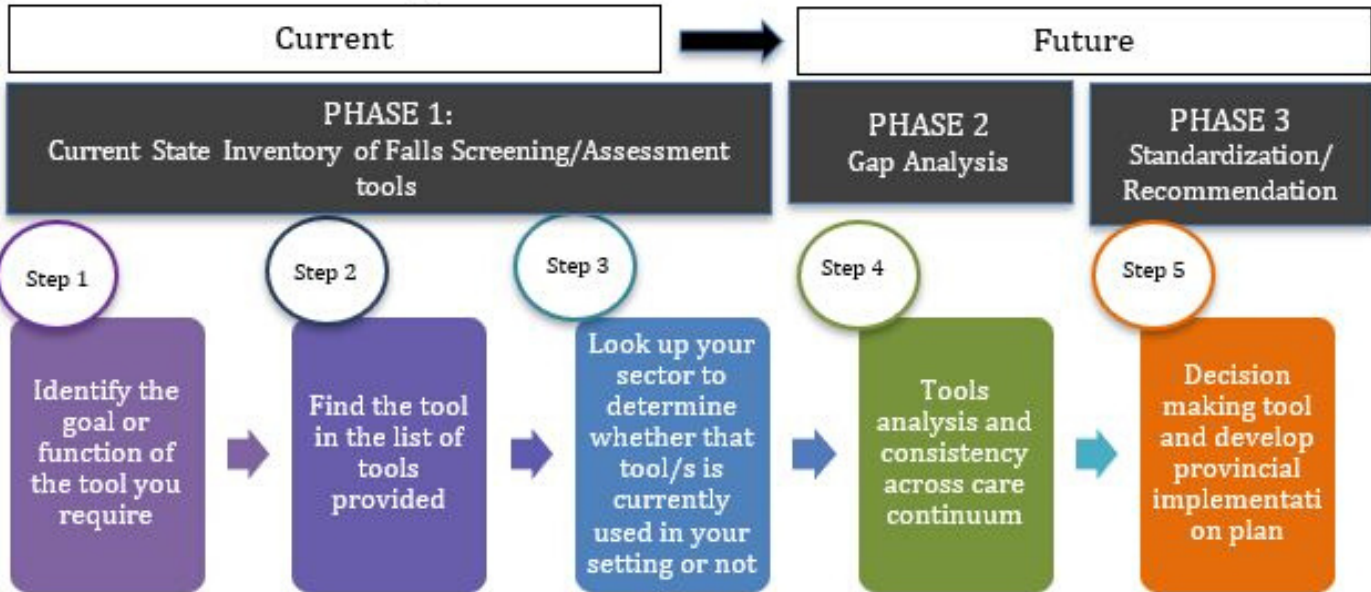
To this effect, it is not known at a provincial level which fall prevention screening and assessment tools are being used in Ontario, for which purpose, by which disciplines, in which context including the implementation details of each tool in different sectors across the continuum of care. The Knowledge Resource Working Group was mandated by the Collaborative to make sense of the current status of these tools and bring an understanding of what needs to be done at a provincial level.

# PHASE 1

## Fall Prevention Screening and Assessment Tools - Knowledge Resource

The Ontario Fall Prevention Collaborative (OFPC), Knowledge Resource Working Group has developed a draft document to help health systems partners and professionals in locating the right screening or assessment tools for fall prevention for older adults in Ontario. The purpose of this document is to provide a first version of what currently exists as screening or assessment tools for falls in older adults within Ontario. However, further work needs to be done around recommendations from the Ontario Fall Prevention Collaborative on fall prevention screening and assessment tools with high impact for the intended target population, broken down by sector. Further engagement with various provincial and national stakeholders is underway, and an updated phase 2 version of this resource document will be shared upon that time. If you require further information on this knowledge resource document or on OFPC, please reach out to H el ene Gagn e at [helene.gagne@onf.org](mailto:helene.gagne@onf.org) or visit ONF's website for more information (<https://onf.org/implementation/prevention/>).

## Fall Prevention Screening and Assessment Tools - Guide For Practitioners



## Table 1. Excerpt of Most Frequently Used Screening and Assessment Tools for Fall Prevention in Ontario

**Preamble:** This annotated list of fall prevention screening and assessment tools is not exhaustive in nature and is meant to be a first step in identifying tools commonly used in Ontario. Appendix 2 has a list of additional tools. For tools used in continuing care, please consult the [Bruyère Rapid Review](#).

#	Name of Tool	Function	Tool Type	Community	Acute Care	Continuing Care	LTC	More info on page
2	Berg Balance Scale (BBS or Berg)	Measures balance in the elderly	(S)(A)	★	★	★		5
3	Falls Efficacy Scale (FES)	Assesses the perceptions and confidence of the client	(A)	★				7
4	Morse Falls Scale (MFS)	Identifies patient at risk of falls	(S)	★	★	★	★	9
5	Staying Independent Checklist (SIC)	Self-screening tool to assess the risk of falls	(S)	★				11
6	Timed Up and Go (TUG) test	Tests basic functional mobility for frail elderly persons	(S)(A)	★				15
7	Tinetti Test (TT), or Performance Oriented Mobility Assessment (POMA)	Assesses mobility of frail seniors	(S)(A)	★				16

**Note:** Tool type -Screening (S), Assessment (A). For definitions please see Appendix 1.

Links for additional screening and assessment tools for all settings are available in Appendix 2, p. 17-19.

It was noted that the Clinical Frailty Scale is often mentioned in the context of assessing and screening for falls when in reality this tool, although widely used, is meant to assess frailty which is a well-known risk factor for falls but not designed to assess and screen falls. This tool is described in Table 8 and should be used in tandem with a fall screening and assessment tool when addressing falls in older adults.

### Next steps for the Knowledge Resource Working group:

The working group is looking to share and receive feedback of the the work to date to inform Phase 2.

## PHASE 2

The focus of Phase 2 is to seek more detailed information (e.g. context, gaps, etc.) about the tools to make recommendations to support the use of specific tools across the province that could provide some consistency and ability to track effectiveness of interventions across the continuum. Gaps will be identified per sector as well as per use of screening and assessment tools in Ontario. Recommendations will be made about tools to use across sectors and levels of intervention to inform the work of health practitioners across Ontario as well as the upcoming Ontario Health Teams focusing on older adults.



## PHASE 3

Linkages will be made with the work on fall prevention data and measurement indicators in use in Ontario to ensure a coordinated approach. The focus of Phase 3 will be the development of implementation guidelines for the use of specific tools along with a pilot phase of standardizing the use of these tools in practice to track and evaluate change over time.

Ontario Fall Prevention Collaborative - Knowledge Resource Working Group  
Members

- Hélène Gagné, Ontario Neurotrauma Foundation
- Alison Stirling, Ontario Neurotrauma Foundation
- Amy Khan, Mississauga Halton LHIN
- Dr Aleksandra Zecevic: University of Western Ontario
- Christine Bidmead: Regional Geriatric Program of Eastern Ontario, Champlain Fall Prevention Strategy



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## **Appendix 1**

### **DEFINITIONS, SELECTED TOOLS AND DETAILED DESCRIPTIVE TABLES**

#### **PURPOSE**

To describe screening and assessment tools for fall prevention in older adults currently being used in Ontario

**DEFINITIONS** (See [RNAO BPG Prevention of Falls and Fall Injuries Appendix A Glossary](#) for definitions)

**Screening:** a brief process that is used to identify individuals who require further investigation into falls risk factors, and tailored interventions. Screening involves short questions, plus observations and clinical judgment.

**Assessment:** a comprehensive assessment refers to the identification of a range of factors contributing to a person's risk for falls

**Validated (validity):** The degree to which a measurement is likely to be true and free of bias (The Cochrane Collaboration, 2017).

#### **Levels of Prevention<sup>28</sup>**

**Primary prevention:** aims to prevent disease or injury before it ever occurs. This is done by preventing exposures to hazards that cause disease or injury, altering unhealthy or unsafe behaviours that can lead to disease or injury, and increasing resistance to disease or injury should exposure occur

**Secondary prevention:** aims to reduce the impact of a disease or injury that has already occurred. This is done by detecting and treating disease or injury as soon as possible to halt or slow its progress, encouraging personal strategies to prevent reinjury or recurrence, and implementing programs to return people to their original health and function to prevent long-term problems

**Tertiary prevention:** aims to soften the impact of an ongoing illness or injury that has lasting effects. This is done by helping people manage long-term, often-complex health problems and injuries (e.g. chronic diseases, permanent impairments) in order to improve as much as possible their ability to function, their quality of life and their life expectancy

The reference is

Institute for Work and Health. **Primary, secondary and tertiary prevention.** Toronto: IWH, 2015. Available from: <https://www.iwh.on.ca/what-researchers-mean-by/primary-secondary-and-tertiary-prevention>

## DESCRIPTIONS OF HEALTH CARE SECTORS

### Health Care Sectors Across the Continuum in Ontario (conceptualized from various definitions)

**Home and community care:** supports individuals to remain in their current living environment, by providing maintenance and prevention services such as personal care assistance, acute health professional services such as community nursing, and continuing care such as palliative care in a domiciliary setting. This includes Home and Community Care, Public Health, Community Support Services etc

**Primary care:** provides coordinated professional medical and other assessment and intervention and support by the family physician and general practice teams close to the individual place of residence, and by physicians and teams in Urgent Care and Emergency Departments

#### Acute Care:

- **Secondary care** provides more specialised medical assessment and care in a hospital inpatient or outpatient setting
- **Tertiary care** delivers highly specialized medical care for patients who are usually referred from secondary care providers

**Continuing care** includes palliative care, short and long-term in-patient rehabilitation such as geriatric and stroke rehabilitation

**Long term care** refers to non-medical care for people who are dependent on assistance with basic daily activities, and may be provided at home or in facilities such as nursing homes

**Table 2**

Name of Tool	Berg Balance Scale (BBS or Berg)	Comments	
Origin of the tool	"Measuring balance in the elderly: preliminary development of an instrument". <i>Physiotherapy Canada</i> . 41 (6): 304–311. doi: <a href="https://doi.org/10.3138/ptc.41.6.304">10.3138/ptc.41.6.304</a>		
Authors	Katherine Berg, Sharon Wood-Dauphine J.I. Williams David Gayton. School Physical & Occupational Therapy, McGill U. Montreal		
Other names for the tool if any			
Screening or Assessment	Functional balance abilities test – used for both, routine screening and assessment of mobility (gait and balance).		
Year published	1989 (development) & 1992 (validation)		
Validated	Strongly established as valid and reliable. (e.g. <a href="#">1992</a> ; <a href="#">2019</a> )		
Adapted / adopted and used with permission from authors by these agencies	Recommended balance screen/ test in Clinical Practice Guidelines; e.g. AGS/BGS (2011), NICE (2013), RNAO (2017)		
Cost (to purchase or use)	Free		
Licensing requirements if any	Not required		
Languages	<a href="#">English</a> , <a href="#">French (CNFS)</a>		
Appropriate for type of population	Older adults (>60 years of age), with varying conditions and disabilities including unable to move from a chair; patients post-stroke rehabilitation		
Not appropriate for	A few tasks in BBS test dynamic balance, which <a href="#">may limit its ability</a> for older adults who live independently in the community, <a href="#">a ceiling effect</a> .		
Expected benefits of using the tool	BBS is considered a valid and reliable tool for assessing the risk of falling in the elderly and as clinical test of static and dynamic balance abilities. It does not require prior training for assessors and the equipment is inexpensive ( <a href="#">Zwick et al., 2000</a> ).		
Contains questions related to issues identified with Fall Risk	History of Falls	yes	
	Balance	Yes (not gait)	
	Upper and lower extremity strength	yes	
Implementation details: Paper-based or electronic record Guides, videos etc.	Primarily paper-based scoring and comparing with sit, stand chart For descriptions, guides, forms, videos see <a href="#">CSPi Getting Started Kit</a> (page 136-142); <a href="#">CNFS French version</a> ; See PT guides: Geriatric Evaluation Toolkit <a href="#">GETK-BBS</a> ; <a href="#">Physio-Pedia</a>	Uses a set of 14 simple balance related tasks, from standing up from a sitting position, to standing on one foot. ( <a href="#">Downs 2015</a> )	



Name of Tool	Berg Balance Scale (BBS or Berg)	Comments
Training needs and time required to be trained on tool	No training is required to administer the BBS. A ruler, two standard chairs (one with arm rests, one without), footstool or step, stopwatch, 15 ft. walkway are required for this scale ( <a href="#">UWO-HS</a> ).	
Other considerations or clinical comments	Recommended BBS be combined with other balance measures, tests by PTs or OTs, with experience in interpreting & judgement Cut-off score signifying risk: BBS can be used as a multilevel tool, with risk of multiple falls increasing below a score of 45 and significant increase below 40. ( <a href="#">Muir et al 2008</a> )	

Table 3

Name of Tool	Falls Efficacy Scale ( FES)	Comments
Origin of the tool	Yale University New Haven Connecticut USA	
Authors	Dr Mary Tinetti, Donna Richman, and Lynda Powell	
Other names for the tool if any	FES-I *( Falls Efficacy Scale International) and Short FES-I	
Screening or Assessment	Assesses the perceptions and confidence of the client themselves.	
Year published	1989	
Validated	<p>Validity Measures</p> <ul style="list-style-type: none"> <li>FES score was significantly associated with difficulty getting up after a fall, anxiety trait, general fear score and several measures of balance and gait.</li> <li>Usual walking pace, anxiety trait, and depression were independent predictors of FES score</li> </ul>	
Adapted / adopted and used with permission from authors by these agencies	Adapted to FES-International ( FES-I) by Prevention of Falls Network Europe ( ProFaNe) to make the questions relevant across cultures. Added 6 more questions concerning walking on slippery surfaces or slopes, meeting with friends, social events etc (Yardley et al 2005).	
Cost (to purchase or use)	FES-I and Short FES-I are available free of charge for use by researchers and clinicians providing they are <a href="#">appropriately referenced</a> .	
Licensing requirements if any	Licensing is not required	
Languages	English, French, and multiple other languages	See <a href="#">list of translations</a> and contacts
Appropriate for type of population	Community dwelling adults Also Geriatric Rehab patients, post fracture patients, MS, vestibular disorders	
Not appropriate for		
Expected benefits of using the tool	Results of FES-I enable clients to be triaged as low, medium and high risk, which then determines the level and immediacy of intervention that will be offered ( <a href="#">CSPi</a> GSK (page 134). An easy to administer tool that measures level of concern about falling in 16 social & physical activities	
Contains questions related to issues identified with Fall Risk	History of Falls	Short FES-I has 7 questions
	Gait and balance	
	Fear of Falling	

Name of Tool	Falls Efficacy Scale ( FES)	Comments
	Mood	
Implementation details: Paper-based or electronic record Guides, videos etc.	Paper-based or electronic for scoring. Quantitative For descriptions, forms, guides see : <a href="#">Healthy Ageing Research Group, U of Manchester UK FES-I description</a> ; <a href="#">BCIRPU FES description</a> ; <a href="#">Hamilton County [US] Fall Prevention Coalition – FES scoring form</a>	10-item rating scale to assess confidence in performing daily activities without falling. Each item is rated from 1 = extreme confidence to 10 = no confidence at all.
Training needs and time required to be trained on tool		
Other considerations or clinical comments	<p>References</p> <p>Tinetti, M.E., Richman, D., &amp; Powell, L. (1990). <a href="#">Falls efficacy as a measure of fear of falling</a>. <i>Journal of Gerontology: Psychological Sciences</i>, 45(6), 239-243.</p> <p>Powell, L.E., &amp; Myers, A.M. (1995). <a href="#">The activities-specific balance confidence (ABC) scale</a>. <i>Journal of Gerontology: Medical Sciences</i>, 50A(1), M28-M34.</p> <p>This study provided more support for the FES compared to ABC</p>	

**Table 4**

Name of Tool	MORSE Falls Scale (MFS)	Comments
Origin of the tool	The Pennsylvania State University School of Nursing Health and Human Development East, University Park, PA 16802-6508	
Authors	Janice M Morse	
Other names for the tool if any		
Screening or Assessment	Screening tool Identifies patients at risk Calls itself an Assessment of risk of falls but is not a comprehensive assessment	
Year published	1985	
Validated	Additional testing completed by Eagle et al. (1999) on a sample of elderly inpatients indicated the following: <ul style="list-style-type: none"> <li>• Sensitivity (ability to detect falls when they are present) = 72%</li> <li>• Specificity (ability to identify correctly the absence of falls) = 51%</li> <li>• Positive Predictive Value (how well test predicted compared to actual number of falls) = 38%</li> <li>• Negative Predictive Value (how well negative test correctly predicts absence of falls) = 81%</li> <li>• Accuracy (overall rate of agreement between the test and the actual number of falls) = 57%</li> <li>• Prevalence (ratio of the number of people who have fallen divided by the total number of people at risk for falling) = 30%</li> </ul>	
Adapted / adopted and used with permission from authors by these agencies	2008: Janice Morse wrote a book Preventing Patient Falls 2 <sup>nd</sup> edition to update and support the implementation of her scale	
Cost (to purchase or use)	Free	
Licensing requirements if any	Not required	
Languages	English, French. Also Danish, Spanish, German, Japanese, Korean, Mandarin, Filipino, Persian, Portuguese translations supported	
Appropriate for type of population	Hospitalised patients	
Not appropriate for	Community dwelling older adults	

Name of Tool	MORSE Falls Scale (MFS)		Comments
<b>Expected benefits of using the tool</b>	Short, quick to administer and implement simple strategies to mitigate the risk		
<b>Contains questions related to issues identified with Fall Risk</b>	History of Falls	yes	
	Gait and balance	yes	
	Fear of Falling	Not specifically	
	Upper and lower extremity strength	no	
	Continence	no	
	Medications	no	
	Sensory loss feet	no	
	Mood	no	
<b>Implementation details: Paper-based or electronic record Guides, videos etc.</b>	Can be paper-record, more common electronic record in care facility Short, quick to administer and implement simple strategies to mitigate the risk; Quick reference card for nurses to use <a href="#">BCIRPU description</a> ; <a href="#">CSPI</a> (page 131); <a href="#">Bruyère Reports No. 6</a> (p. 24)		MFS administered in 1 – 5 minutes
<b>Training needs and time required to be trained on tool</b>	AHRQ-US has a training module on proper use of the Morse Fall Scale developed by the Partners HealthCare – see <a href="#">here</a>		
<b>Other considerations or clinical comments</b>	Various resources available online concerning introduction, factors to consider etc		

**Table 5**

Name of Tool	Staying Independent Checklist (SIC)	Comments
<b>Origin of the tool</b>	FRQ – Falls Risk Questionnaire	Currently adapted in Canada
<b>Authors</b>	Vivrette RL, Rubenstein LZ, Martin JL, Josephson KR, Kramer BJ. Development of a fall-risk self-assessment for community-dwelling seniors. <i>J Aging Phys Act.</i> 2011 Jan;19(1):16-29. <a href="#">Full text PMC3383800</a> . Greater Los Angeles VA Geriatric Research Education Clinical Centre	
<b>Other names for the tool if any</b>	FRQ, Stay Independent screen (STEADI), Fall Risk Screen (SAIL)	
<b>Screening or Assessment</b>	Self Screening	
<b>Year published</b>	2011	
<b>Validated</b>	Yes Rubenstein LZ, Vivrette R, Harker JO, Stevens JA, Kramer BJ. Validating an evidence-based, self-rated fall risk questionnaire (FRQ) for older adults. <i>J Safety Res.</i> 2011 Dec;42(6):493-9. <a href="#">Abstract</a>	Not validated in French
<b>Adapted / adopted and used with permission from authors by these agencies</b>	CDC USA <a href="#">STEADI program</a> <a href="#">SAIL Strategies &amp; Actions for Independent Living</a> (Dr Vicky Scott) <a href="#">Seniors BC Fall Prevention</a> <a href="#">Champlain Regional FP Strategy</a> NE LHIN regional FP strategy Wellington Dufferin Guelph PH Finding Balance Alberta <a href="#">Finding Balance BC – Staying Independent checklist</a>	Adapted / adopted for use with permission but content unchanged.
<b>Languages</b>	English, French Translated into French in Champlain <a href="http://www.rgpeo.com/fr/professionnels-de-la-sant%C3%A9/pr%C3%A9vention-des-chutes/algorithmes-et-outils-de-pr%C3%A9vention-des-chutes.aspx">http://www.rgpeo.com/fr/professionnels-de-la-sant%C3%A9/pr%C3%A9vention-des-chutes/algorithmes-et-outils-de-pr%C3%A9vention-des-chutes.aspx</a>	
<b>Cost (to purchase or use)</b>	Free	
<b>Licensing requirements if any</b>		
<b>Appropriate for type of population</b>	Community dwelling seniors	Validated in California using seniors over 65, community dwelling, ambulatory, able to read and comprehend the form. Included one assisted living facility
<b>Not appropriate for</b>	Institutional dwelling seniors ( not validated for this group)	
<b>Expected benefits of using the tool</b>		
	History of Falls	yes

Name of Tool	Staying Independent Checklist (SIC)		Comments
Contains questions related to issues identified with Fall Risk	Gait and balance	yes	
	Fear of Falling	yes	
	Upper and lower extremity strength	yes	
	Continence	yes	
	Medications	yes	
	Sensory loss feet	yes	
	Mood	yes	
Implementation details: Paper-based or electronic record Guides, videos etc.	user guide <a href="http://www.stopfalls.ca">http://www.stopfalls.ca</a> website in English and French <a href="#">Staying Independent Checklist</a>	Download <a href="#">Bilingual version</a>	Important to involve public health, community and primary care stakeholders as well as look at opportunities to include ambulatory and Emergency department settings
Training needs and time required to be trained on tool	No training required. Self screening tool to be completed by seniors with or without family help To take to primary care /health provider of score is 4 or more for further discussion, assessment and intervention		
Other Considerations or clinical comments	This tool should be re-evaluated and validated in a different context.		

Table 6

Name of Tool	Timed Up and Go (TUG) test	Comments
Origin of the tool	The Timed “Up & Go”: a test of basic functional mobility for frail elderly persons. <i>J Am Geriatr Soc.</i> 1991, 39 (2): 142-148.	
Authors	D. Podsiadlo, S. Richardson	
Year Published	1991	
Screening or Assessment	both, routine screening and assessment of mobility (gait and balance)	Was originally an assessment tool, now widely used as screening tool
Other names for tool / or adapted from	TUG is a modified version of <a href="#">Get up and Go test (1986)</a> . Also, variations – QTUG (Quick),	
Validated	Evaluated many times by different authors in systematic reviews and meta-analyses, such as 2014 one by E Barry et al in <a href="#">BMC Geriatrics</a>	
Adapted / adopted and used with permission by these agencies	Most recommended balance screen/ test in Clinical Practice Guidelines, e.g. AGS/BGS (2011), NICE (2013), CDC (2019)	
Cost (to purchase or use)	Free	
Licensing requirements if any	Not required	
Languages	English, French French – CNFS <a href="#">Test chronométré du lever de chaise de Mathias</a>	
Appropriate for type of population	Community dwelling older adults. Also used in hospitals and long-term care homes	
Not appropriate for	Unaware of any inappropriate uses, but limited predictive ability	
Expected benefits of using the tool	Benefits that TUG is easy to understand and to do by the people being assessed and requires little time and material for the assessors.	
Contains questions related to issues identified with Fall Risk	Not a questionnaire. Measures: Time and Performance	
Implementation details: Paper-based or electronic record Guides, videos etc.	See <a href="#">BCIRPU description</a> ; <a href="#">GETK description</a> ; CDC- <a href="#">STEADI TUG test</a> and <a href="#">video</a> and <a href="#">CNFS French version</a> with video	The TUG requires participants to stand from a seated position, walk 3 metres at a normal pace, turn around, walk back, and sit in the same seated position. ( <a href="#">UWO-HS</a> )
Training needs and time required to be trained on tool	No training required	
Other considerations or clinical comments	Cut off score 13.5 seconds, faster time indicates a better functional performance, longer time (above cut off point) identifies those at increased risk of falls	In different studies cut-off time varies from 10 s to 30 s. CDC recommends ≥12 s on TUG



Table 7

Name of Tool	Tinetti Test (TT), or Performance Oriented Mobility Assessment (POMA)		Comments
Origin of the tool	<a href="#">Performance-oriented assessment of mobility problems in elderly patients</a> . <i>J Am Geriatrics Soc</i> , 34, 119-126		Alternate reference 1986: <a href="#">PubMed 3953620</a>
Authors	Mary E. Tinetti		
Other names for the tool if any	Performance Oriented Mobility Assessment (POMA) or Tinetti Gait and Balance Exam, Tinetti Balance Test, Tinetti Falls Efficacy Scale		<a href="#">variation</a> in naming, test sections and cut off values can cause confusion
Screening or Assessment	Both. Used more in mobility assessment		
Year published	1986		
Validated	Many validations and systematic reviews. Inter-rater reliability of the instrument has been confirmed.		
Adapted / adopted and used with permission from authors by these agencies	<a href="#">BC Injury Research reports</a> Quebec adaptation in 2000 by M Raichle et al. Uses shorter balance focused scale. <a href="#">Screening older adults at risk of falling with the Tinetti balance scale</a> . <i>Lancet</i> , 356(9). See <a href="#">PubMed abstract</a>		
Cost (to purchase or use)	Unknown– available online free to download in many geriatric assessment and fall risk tool sites (e.g. <a href="#">CSPI</a> p 143, <a href="#">GERI-U</a> )		
Licensing requirements if any			
Languages			
Appropriate for type of population	Older adults, both frail and community-dwelling.		
Not appropriate for			
Expected benefits of using the tool	Considered <a href="#">by Physio-Pedia</a> a very good indicator of the fall risk with strong test-retest, and predictive validities for fall risk		
Contains questions related to issues identified with Fall Risk	History of Falls	yes	Scale that rates the ability of an individual to maintain balance while performing ADL-related tasks ( <a href="#">RNAO, 2017</a> ).
	Gait and balance	yes	
	Fear of Falling	Yes (in <a href="#">Tinetti Falls Efficacy Scale</a> )	
	Upper and lower extremity strength	yes	
Implementation details: Paper-based or electronic record Guides, videos etc.	Both paper and electronic record scoring used <a href="#">RNAO LTC Toolkit</a> ; <a href="#">BCIRPU description</a> ; <a href="#">CSPI description</a> (page 143-145); <a href="#">Tinetti Balance &amp; Gait Evaluation Tool</a> ; <a href="#">GETK description</a> ; <a href="#">Physio-Pedia - description, video</a> ; <a href="#">HC Fall Prevention Task Force</a>		Takes 10 – 15 minutes to administer. Requires time, equipment, and clinical expertise, but no formal training required.
Training needs and time required to be trained on tool			
Other considerations or clinical comments	Appropriate for comprehensive assessment with interprofessional team ( <a href="#">RNAO, 2017</a> ).		

Table 8

Name of Tool	Clinical Frailty Scale (CFS)	Comments
Origin of the tool	Geriatric Medicine Research, Centre for Health Care of the Elderly, Nova Scotia Health Authority; Department of Medicine, Dalhousie University, Halifax,	
Authors	Kenneth Rockwood, X Song, C MacKnight, H Bergman, DB Hogan, I McDowell, A Mitnitski.	
Other names for the tool if any	The Canadian Study of Health and Aging (CSHA) Clinical Frailty Scale	
Screening or Assessment	Assessment but also “for clinical use... as a judgement-based tool to <a href="#">screen</a> for frailty and to broadly stratify degrees of fitness and frailty.”	
Year published	2005	Modified in 2007 from 7 to 9 point scale
Validated	<a href="https://www.dal.ca/sites/gmr/our-tools/clinical-frailty-scale/clinical-frailty-scale-validation.html">https://www.dal.ca/sites/gmr/our-tools/clinical-frailty-scale/clinical-frailty-scale-validation.html</a> <a href="#">A global clinical measure of fitness and frailty in elderly people</a> . <i>CMAJ</i> . 2005 Aug 30;173(5):489-95. doi: 10.1503/cmaj.050051.	
Adapted / adopted and used with permission from authors by these agencies	Geriatric Medicine Research Dalhousie U <a href="https://www.dal.ca/sites/gmr/our-tools/clinical-frailty-scale.html">https://www.dal.ca/sites/gmr/our-tools/clinical-frailty-scale.html</a>	
Cost (to purchase or use)	Free if used for non-commercial, clinical or research purposes	
Licensing requirements if any	To guard against copyright infringement or unlicensed commercial use, all potential users asked to complete a <a href="#">Permission for Use Agreement</a>	
Languages	8 languages – see <a href="https://www.dal.ca/sites/gmr/our-tools/clinical-frailty-scale/clinical-frailty-scale-translations.html">https://www.dal.ca/sites/gmr/our-tools/clinical-frailty-scale/clinical-frailty-scale-translations.html</a>	
Appropriate for type of population	Frail older adult – hospital and some community-based	
Not appropriate for	Screening or self-assessment	
Expected benefits of using the tool	This tool is widely used to assess frailty of older adults.	

Name of Tool	Clinical Frailty Scale (CFS)	Comments
<b>Contains questions related to issues identified with Fall Risk</b>	<p><b>Not specifically on Fall Risk.</b></p> <p>The CFS involves a nine-point pictorial scale paired with corresponding text describing classifications of frailty.</p> <p>1= Very Fit; 2 = Well; 3 = Managing Well (not regularly active);  4 = Vulnerable; 5 = Mildly Frail; 6 = Moderately Frail; (limit IADL)  7 = Severely Frail (completely dependent for care); 8 = Very Severely Frail; 9 = Terminally ill</p>	<p>The <a href="#">Edmonton Frail Scale</a> includes questions on cognition, medication, mood, activity, continence</p>
<b>Implementation details: Paper-based or electronic record Guides, videos etc.</b>	<p>It is not a questionnaire, but a way to summarize information from a clinical encounter. See scale at <a href="https://www.dal.ca/sites/gmr/our-tools/clinical-frailty-scale.html">https://www.dal.ca/sites/gmr/our-tools/clinical-frailty-scale.html</a></p>	
<b>Other considerations or clinical comments</b>	<p>Comprehensive geriatric assessment. Fall risk noted in <a href="#">ICFSR Physical Frailty CPG</a> for where on CFS might have interventions that could address fall risk, and in Canadian Frailty Network on <a href="#">how screening for frailty helps</a> assessing fall risk factors.</p> <p>Would require using another tool to assess falls risk</p> <p>The <a href="#">International Consortium for Health Outcomes Measurement (ICHOM)</a> has recommended the CFS as part of its standard set of outcome measurements for studies of older adults. See <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5797357/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5797357/</a></p>	<p>Another Canadian Frailty Scale that is used widely is the Edmonton Frailty Scale. See Rolfson et al <a href="#">Validity and reliability of the Edmonton Frail Scale</a>. <i>Age and Ageing</i>. 2006 Sep;35(5):526.</p>

## **Appendix 2**

### **Selected Websites repositories of screening and assessment tools and Canadian resource reports with tools descriptions**

#### **British Columbia Injury Research and Prevention Unit (BCIRPU) Tool Repository**

<https://www.injuryresearch.bc.ca/resources/tool-repository/> English only

- A collaborative project between BCIRPU, the Nova Scotia Child Safety and Injury Prevention Program, and the Canadian Collaborating Centres for Injury Prevention and Control. It provides concise descriptions of measurement tools and information on how to obtain the tool. They note that a tool in the repository does not imply its validity and reliability.

**Geriatric Examination Tool Kit (GETK).** University of Missouri, School of Health Professions, Department of Physical Therapy. EL Prost & BW Willis. (2019). English only <https://geriatrictoolkit.missouri.edu>

- Professor Evan Proust's work on increasing the physical activity and decreasing the fall risk in the geriatric population led to the creation and maintenance of the UM Physical Therapy Department's Geriatric Examination Tool Kit (GETK). Reference values and Predictive values are available for some of the instruments.

Le Consortium national de formation en santé (CNFS) / National Health Training Consortium **L'évaluation des personnes âgées** (Evaluation of older adults) French only

<https://cnfs.ca/agees/>

- Offers some tools in French to assist in evaluation or assessment of geriatric population. There are detailed descriptions of the tools including their object of evaluation, their measurement qualities, their advantages and their limits, and instructions on use.

**Reducing falls and injuries from falls: Getting started kit** Ottawa (ON): Canadian Patient Safety Institute (CSPI); 2013 Jun [revised 2015 Apr].

<http://www.patientsafetyinstitute.ca/en/toolsResources/Documents/Interventions/Reducing%20Falls%20and%20Injury%20from%20Falls/Falls%20Getting%20Started%20Kit.pdf>

**Evidence-based screening tools and fall risk assessment in continuing care.** A Bruyère rapid review. Welch V, Ghogomu E, Shea B. Bruyère Reports No. 6, August 2016.

<https://www.bruyere.org/uploads/Falls%20assessment%20in%20continuing%20care.pdf>

The Saskatoon Falls Prevention Consortium (SFPC), Saskatoon Health Region – **Health Care Providers Screening & Referral Tools for Community-Dwelling Older Adults**; 2017 May.

[https://www.saskatoonhealthregion.ca/locations\\_services/Services/Falls-Prevention/providers/Pages/Assessment-Tools.aspx](https://www.saskatoonhealthregion.ca/locations_services/Services/Falls-Prevention/providers/Pages/Assessment-Tools.aspx)

## Screening and Assessment Tools Used in Ontario – Description and Website Links

**ABC-S - Activity Balance Confidence Scale** – [BCIRPU description](#); [GETK description](#)

**Barthel** – Barthel Index – [GETK description](#)

**Berg/BBS** – Berg Balance Scale (or Test) – see [Table 2](#)

**CCDS** - computerised clinical decision support software (see Snooks et al, 2016)

**CFPA** – [Champlain Fall Prevention Algorithm](#)

**CFS** - **Clinical Frailty Scale** (also Adapted Clinical Frailty Test and Clinical functional performance tool) see [Table 8](#)

**DGI - Dynamic Gait Index** – [GETK description](#) [CNFS French description](#)

**FES** – Falls Efficacy Scale; FES-I (International), Short FES-I – See [Table 3](#)

**FFCS - Functional Fitness Confidence Scale**

**FIM** – Functional Independence Measure – [Science-Direct](#); Physio-pedia

**FRAGILE** – Fall Risk Assessment in Geriatric Psychiatric Inpatients to Lower Events – see [Bruyère Reports No. 6](#)

**FRAT -Fall Risk Assessment Tool** – [Peninsula Health Australia version](#); [Johns Hopkins Nursing](#) version; and see [Bruyère Reports No. 6](#) description (See also **FRAS** Fall Risk Assessment Scales, [BCIRPU description](#)),

**FRI** – Fall Risk Inventory/Intervention

[https://www.med.or.jp/english/journal/pdf/2009\\_04/237\\_242.pdf](https://www.med.or.jp/english/journal/pdf/2009_04/237_242.pdf)

**FROP-Com** -Falls Risk for Older People in the Community screen. [NARI-Australia description/tools](#); [Saskatoon Falls Prevention Consortium description/tools](#).

**FRQ - Falls Risk Questionnaire** (also “Self- rated Falls Risk Questionnaire”) [BC Seniors](#)

**Hendrich- Hendrich Fall Risk Model** (also HFRM) see [Bruyère Reports No. 6](#) (p. 25); and [Hartford Institute Geriatric Nursing Assessment Series #8](#).

**ICD10-CA** – International Classification of Disorder

**IADL - Instrumental Activities of Daily Living Status** – see GETK description  
[https://geriatrictoolkit.missouri.edu/funct/Katz\\_ADL.pdf](https://geriatrictoolkit.missouri.edu/funct/Katz_ADL.pdf)

**Inter or MDS-RAI** - Resident Assessment instrument

**Morse** – Morse Fall Scale – see [Table 4](#)  
[BCIRPU description](#); [CSPI](#) (page 131); [Bruyère Reports No. 6](#) (p. 24)

**PJC-FRAT - Peter James Centre Fall Risk Assessment Tool** –[Bruyère Reports No. 6](#) (p. 25-28)

**SIC** - Staying Independent Checklist – See [Table 5](#)

**SFRS** – Scott Fall Risk Screen assessment tool – see [CSPI \(pages 133, 151-158\)](#)

**SOYFQ - Stay On Your Feet Questionnaire or Checklist** – SFPC – [SOYF Guide](#)

**STEADI** – Stopping Elderly Accidents, Deaths & Injuries [Checklist and materials](#)

**StS – Sit to Stand** (note: different versions, 30 s and 5 times STS) – see [STEADI 30 second chair stand test](#) and [video](#); see [GETK description](#); and [CNFS French version](#)

**STRATIFY - St Thomas Risk Assessment Tool in Falling Elderly** In-patients (and Ontario adapted STRATIFY). see [Bruyère Reports No. 6](#) (p. 22); and [BCIRPU](#)

**Tinetti** – Tinetti Gait & Balance Scale — see [Table 5](#)

**TUG** - Timed Up and Go (and QTUG - Quick TUG) – see [Table 6](#)