

Summary of Recommendations

General Principles:

1. The client's perspective, individual desires and needs are central to the application of the guideline.
2. The over-arching principle that guides the intervention choices is the principle of maintaining the highest quality of life possible while striving for a safe environment and practices. Risk taking, autonomy, and self-determination are supported, respected, and considered in the plan of interventions.
3. Individuals, their significant other(s) and the care team engage in assessment and interventions through a collaborative process.

RECOMMENDATION		*LEVEL OF EVIDENCE	+GRADE OF RECOMMENDATION
Practice Recommendations			
<i>Assessment</i>	<p>1.0 Assess fall risk on admission.</p> <p>1.1 Assess fall risk after a fall.</p>	<p>lb</p> <p>lb</p>	<p>B</p> <p>B</p>
<i>Intervention Tai Chi</i>	<p>2.0 Tai Chi to prevent falls in the elderly is recommended for those clients whose length of stay (LOS) is greater than four months and for those clients with no history of a fall fracture. There is insufficient evidence to recommend Tai Chi to prevent falls for clients with LOS less than four months.</p>	lb	B
<i>Exercise</i>	<p>2.1 Nurses can use strength training as a component of multi-factorial fall interventions; however, there is insufficient evidence to recommend it as a stand-alone intervention.</p>	lb	I
<i>Multi-factorial</i>	<p>2.2 Nurses, as part of the multidisciplinary team, implement multi-factorial fall prevention interventions to prevent future falls.</p>	la	B
<i>Medications</i>	<p>2.3 Nurses, in consultation with the health care team, conduct periodic medication reviews to prevent falls among the elderly in health care settings. Clients taking benzodiazepines, tricyclic antidepressants, selective serotonin-reuptake inhibitors, trazodone, or more than five medications should be identified as high risk. There is fair evidence that medication review be conducted periodically throughout the institutional stay.</p>	llb	B
<i>Hip Protectors</i>	<p>2.4 Nurses could consider the use of hip protectors to reduce hip fractures among those clients considered at high risk of fractures associated with falls; however, there is no evidence to support universal use of hip protectors among the elderly in health care settings.</p>	lb	B

* For a discussion of Levels of Evidence see p. 11.

+ For a discussion of Grades of Recommendation see p. 12.

RECOMMENDATION		*LEVEL OF EVIDENCE	+GRADE OF RECOMMENDATION
<i>Vitamin D</i>	2.5 Nurses provide clients with information on the benefits of vitamin D supplementation in relation to reducing fall risk. In addition, information on dietary, life style, and treatment choice for the prevention of osteoporosis is relevant in relation to reducing the risk of fracture.	IV	
<i>Client Education</i>	2.6 All clients who have been assessed as high risk for falling receive education regarding their risk of falling.	IV	
<i>Environment</i>	3.0 Nurses include environmental modifications as a component of fall prevention strategies.	Ib	
Education Recommendations			
<i>Nursing Education</i>	4.0 Education on the prevention of falls and fall injuries should be included in nursing curricula and on-going education with specific attention to: <ul style="list-style-type: none"> ■ Promoting safe mobility; ■ Risk assessment; ■ Multidisciplinary strategies; ■ Risk management including post-fall follow-up; and ■ Alternatives to restraints and/or other restricted devices. 	IV	
Organization & Policy Recommendations			
<i>Least Restraint</i>	5.0 Nurses should not use side rails for the prevention of falls or recurrent falls for clients receiving care in health care facilities; however, other client factors may influence decision-making around the use of side rails.	III	I
	6.0 Organizations establish a corporate policy for least restraint that includes components of physical and chemical restraints.	IV	
<i>Organizational Support</i>	7.0 Organizations create an environment that supports interventions for fall prevention that includes: <ul style="list-style-type: none"> ■ Fall prevention programs; ■ Staff education; ■ Clinical consultation for risk assessment and intervention; ■ Involvement of multidisciplinary teams in case management; and ■ Availability of supplies and equipment such as transfer devices, high low beds, and bed exit alarms. 	IV	

Prevention of Falls and Fall Injuries in the Older Adult

	RECOMMENDATION	*LEVEL OF EVIDENCE	+GRADE OF RECOMMENDATION
Medication Review	<p>8.0 Implement processes to effectively manage polypharmacy and psychotropic medications including regular medication reviews and exploration of alternatives to psychotropic medication for sedation.</p>	IV	
RNAO <i>Toolkit</i>	<p>9.0 Nursing best practice guidelines can be successfully implemented only where there are adequate planning, resources, organizational and administrative support, as well as appropriate facilitation. Organizations may wish to develop a plan for implementation that includes:</p> <ul style="list-style-type: none"> ■ An assessment of organizational readiness and barriers to education. ■ Involvement of all members (whether in a direct or indirect supportive function) who will contribute to the implementation process. ■ Dedication of a qualified individual to provide the support needed for the education and implementation process. ■ Ongoing opportunities for discussion and education to reinforce the importance of best practices. ■ Opportunities for reflection on personal and organizational experience in implementing guidelines. <p>In this regard, RNAO (through a panel of nurses, researchers and administrators) has developed the <i>Toolkit: Implementation of Clinical Practice Guidelines</i> based on available evidence, theoretical perspectives and consensus. The <i>Toolkit</i> is recommended for guiding the implementation of the RNAO guideline <i>Prevention of Falls and Fall Injuries in the Older Adult</i>.</p>	IV	

Interpretation of Evidence

Levels of Evidence

This RNAO guideline is based on scientific evidence related to prevention of falls and fall-related injuries among the elderly in health care settings. To this end, a literature review of relevant studies was conducted. Where available, studies characterized by good methodologic quality and rigorous scientific design such as systematic reviews, meta-analyses and randomized controlled trials (RCT) were identified as the goal for inclusion within the guideline. Where high quality studies were unlikely to be found due to the nature of the intervention of interest such as risk screening, other levels of evidence were considered including cohort and case-control studies. The following evidence rating taxonomy provides the definitions of the levels of evidence and the rating system used in this document. All studies included in the literature review in support of this guideline were assigned a level of evidence in accordance with the classification system outlined in Table 1.

Table 1: Levels of Evidence

Ia	Evidence obtained from meta-analysis or systematic review of randomized controlled trials.
Ib	Evidence obtained from at least one randomized controlled trial.
IIa	Evidence obtained from at least one well-designed controlled study without randomization.
IIb	Evidence obtained from at least one other type of well-designed quasi-experimental study.
III	Evidence obtained from well-designed non-experimental descriptive studies, such as comparative studies, correlation studies and case studies.
IV	Evidence obtained from expert committee reports or opinions and/or clinical experiences of respected authorities.

Grades of Recommendation

In addition to levels of evidence, recommendations generated as a result of the literature review were also assigned a grade. The grade associated with each recommendation reflects the strength of the evidence supporting it as well as the direction of the effect. For example, if a large body of literature of good methodological quality and design suggests the effectiveness of a given therapeutic intervention, it is likely the resultant recommendation would receive an “A” grade, meaning there is good evidence to include the intervention. The grade of recommendation classification system has been adopted from the Canadian Task Force on Preventive Health Care (CTFPHC, 1997). See Table 2.

Table 2: Grades of Recommendation

- A** There is **good** evidence to recommend the clinical preventive action.
- B** There is **fair** evidence to recommend the clinical preventive action.
- C** The existing evidence is **conflicting** and does not allow making a recommendation for or against use of the clinical preventive action; however other factors may influence decision-making.
- D** There is **fair** evidence to recommend against the clinical preventive action.
- E** There is **good** evidence to recommend against the clinical preventive action.
- I** There is **insufficient** evidence (in quantity and/or quality) to make a recommendation, however other factors may influence decision-making.

Reference: Canadian Task Force on Preventative Health Care (CTFPHC). (1997). Quick tables by strength of evidence. Available: <http://www.ctfphc.org>

