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Senior Friendly Hospital Care: A Review of Guidelines

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Funding: CADTH receives funding from Canada's federal, provincial, and territorial governments, with the exception of Quebec.

Abbreviations

LHIN	Local Health Integration Network
RPG	Regional Geriatric Program

Context and Policy Issues

In 2010, the proportion of the Canadian population aged 65 and older was 14.1% (4.8 million people), and was estimated that it would reach 23% to 25% (9.9 to 10.9 million people) by the year 2036.[1] There were 1.3 million Canadians aged 80 and older in 2010, and the number is expected to rise to 3.3 million by 2036.[1] As health problems increase with age, older adults are more likely to be hospitalized for acute care. From 2007 to 2009, 2.6% of patients aged 75 or older were classified as high hospital users that accounted for 56.1% of all hospital days in Canada excluding Quebec and territories.[2] In 2016, healthcare spending for Canadians age 65 and older (16.5% of population) was estimated to be 44.8% of the total health expenditure of $218 billion.[2,3]

With a rapidly aging population, several models of acute care practice have been developed to foster senior-friendly hospital environments, in order to improve quality of care and to ensure best possible health outcomes for older adults who are hospitalized.[4-8] Some suggested implementations of senior friendly care include a favourable physical environment, interdisciplinary and comprehensive services across the entire institution, identification of patients with risk of delirium and functional decline, and links between acute care hospital and the community. It is important to have guidance on how these models should be developed and put into practice in order to inform national policy and be used by hospitals to deliver the best care to older adults.

The aim of this report is to review the evidence-based guidelines regarding senior friendly hospital care.

Research Question

What are the evidence-based guidelines regarding senior friendly hospital care?

Key Findings

Two guidelines on senior friendly hospital care were identified. A guideline from Ontario was developed to help hospitals perform as senior friendly organizations based on the five components of the Senior Friendly Hospital Framework, and to ensure that the recommendations were implemented. The identified Irish guideline provided detailed recommendations with respect to dementia-related design issues and the Universal Design of dementia-friendly hospitals for new-build projects or redevelopment and reconfiguration of existing hospitals.

Methods

Literature Search Methods

A limited literature search was conducted on key resources including PubMed, The Cochrane Library, University of York Centre for Reviews and Dissemination (CRD) databases, Canadian and major international health technology agencies, as well as a focused Internet search. No methodological filters were applied to limit the retrieval by study type. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2009 and January 29, 2019.

Selection Criteria and Methods

One reviewer screened citations and selected studies. In the first level of screening, titles and abstracts were reviewed and potentially relevant articles were retrieved and assessed for inclusion. The final selection of full-text articles was based on the inclusion criteria presented in Table 1.

Table 1: Selection Criteria

Population	Hospitalized older adults aged ≥65 years with or without dementia; Hospitalized older adults with frailty aged ≥ 60 years
Intervention	Senior friendly hospital care [e.g., avoiding use of physical restraints, mobilization (getting patients out of bed), integrating geriatric psychiatry services within other care programs, wandering patient surveillance system]
Comparator	No comparator
Outcomes	Guidelines
Study Designs	Evidence-based guidelines

Exclusion Criteria

Studies were excluded if they did not meet the selection criteria in Table 1 and if they were published prior to 2009. Guidelines with unclear methodology were excluded.

Critical Appraisal of Individual Studies

The quality of the evidence-based guidelines was assessed using AGREE II instrument.[9] Summary scores were not calculated for the included studies; rather, a review of the strengths and limitations were described narratively.

Summary of Evidence

Quantity of Research Available

A total of 223 citations were identified in the literature search. Following screening of titles and abstracts, no potentially relevant reports from the electronic search were retrieved for full-text review. Two potentially relevant publications were retrieved from the grey literature

search. After reviewing, two guidelines met the inclusion criteria and were included in this report. Appendix 1 presents the PRISMA flowchart of the study selection.

Summary of Study Characteristics

Detailed characteristics of the identified guidelines[10,11] are presented in Table 2 in Appendix 2.

Country of Origin

Two identified evidence-based guidelines (Regional Geriatric Programs [RPGs] of Ontario,[11] and TrinityHaus/Trinity College Dublin/Tallaght Hospital/O'Connell Mahon Architects[10]) were developed in Canada[11] and Ireland,[10] and were published in 2011[11] and 2018.[10]

Objectives

The objectives of the Ontario guideline[11] were to provide recommendations for hospitals to perform as senior friendly organizations and to ensure best possible health outcomes for frail older adults. The objectives of the Irish guideline[10] were to provide detail recommendations in relation to dementia related design issues and the Universal Design of dementia friendly hospitals.

Target Users of the Guidelines

The intended users of the Ontario guidelines were hospitals and Ontario Local Health Integration Networks (LHINs), while those of the Irish guidelines were acute hospitals and non-acute healthcare facilities.

Methods Used to Formulate Recommendations

The Ontario guideline[11] was developed through reviewing the self-assessment reports of all adult hospitals across Ontario based on Senior Friendly Hospital Framework. The hospital self-assessment reports were reviewed by each RPG clinical review team and LHINs to analyze the quantitative and qualitative information. Expert opinion and evidence from healthcare literature contributed to the development of the guideline. The Irish guideline[10] was developed through consultation with key documents, normative references, and stakeholder engagement. A research team worked in collaboration with people living with dementia, their families, caregivers, staff and management of a range of hospitals, as well as the heath service executive and the architectural profession.

Summary of Critical Appraisal

Both guidelines[10,11] were explicit in terms of scope and purpose, stakeholder involvement and clarity of presentation, but not completely clear for other components such as rigour of development, applicability and editorial independence. For rigor of development, both guidelines[10,11] did not report the use of systematic methods to search for evidence (i.e., the strategy used to search for evidence should be provided with sufficient details to be replicated; otherwise, evidence could be selective, which has the potential to introduce bias), did not describe the strengths and limitations of the body of evidence, did not grade their recommendations, were not explicit in terms of external peer-review prior to publication, and did not provide a procedure for updating the guideline. In terms of applicability, it was unclear if costs were considered in the recommendations.[10,11] For editorial independence, it was unclear if the view of the funding body had any influence in the content of the guidelines.[10,11]

Summary of Findings

The main recommendations of the included guidelines[10,11] are presented in Table 4 in Appendix 4.

The Ontario guideline[11] contains recommendations for hospitals and for LHINs. Twelve recommendations for hospitals are intended to transform hospitals into senior friendly organizations and are focused on five domains: 1) organizational support; 2) process of care; 3) emotional and behavioral environment; 4) ethics in clinical care and research; an 5) physical environment. Five recommendations for LHINs are made to support hospitals, integrate the performance of hospitals with senior friendly health system, promote partnerships between health service providers, and optimize transition in care. These Senior Friendly Hospital Framework recommendations aim to support three clinical priority areas of 1) functional decline, 2) delirium, and 3) transitions in care.[11]

The Irish guideline's recommendations[10] primarily focus on the design, development, and operation of friendly environments for hospitals and healthcare facilities in order to respond to the needs and preferences of people with a range of disabilities or functional impairments including dementia, based on a Universal Design approach. The approach also supports family members, caregivers, visitors and staff to facilitate the caring relationship. The recommendations aim to connect the external and internal public spaces of the hospital at three sequential spatial scales: 1) At a larger scale of experiencing the whole hospital, site location, approach and entry, campus design and onsite circulation; 2) At an intermediate scale of building entry and circulation, and key internal and external spaces; 3) At a smaller scale of building components, technology and internal environment.

Limitations

Only two guidelines were identified in this report, one from Ontario, Canada and one from Ireland. No national guidelines or other provincial guidelines on senior friendly care for hospitals across Canada were identified. The Ontario guideline had limitations from using self-assessment methodology, in which quantitative and qualitative responses were not consistent among hospitals due to differences in definitions for the metrics examined, and were based on subjective interpretations. The self-assessment template was not designed to seek information of all hospital services for seniors, but rather focused on five domains of the Senior Friendly Hospital framework. While the Irish guideline can be applicable to the Canadian context with respect to physical design of acute care hospital for senior patients and people with dementia, it was unclear if the Ontario guideline can be fully generalizable to all Canadian jurisdictions.

Conclusions and Implications for Decision or Policy Making

Two guidelines pertaining to senior friendly hospital care were identified. The Ontario guideline was developed to help hospitals transform into senior friendly organizations based on the five components of the Senior Friendly Hospital Framework, and to ensure that the recommendations are implemented. The Irish guideline provides detailed recommendations with respect to dementia-related design issues and the Universal Design of dementia friendly hospitals for existing settings or new-build projects.

Both guidelines were developed to support an acute hospital environment that is well-suited to the needs of elderly patients of all conditions including frailty and cognitive impairment. While the Ontario guideline provides a general approach for transforming existing adult hospitals into senior friendly care organizations, the Irish guideline focuses on physical design of a friendly hospital environment for the care of people with a range of disabilities or functional impairments including dementia. A national guideline with clear recommendations that is applicable to all Canadian jurisdictions should be developed to ensure a universal and standardized senior friendly care across Canada, not only focusing on the physical environment as in the Irish guideline, but also on other components as in the Ontario guideline.

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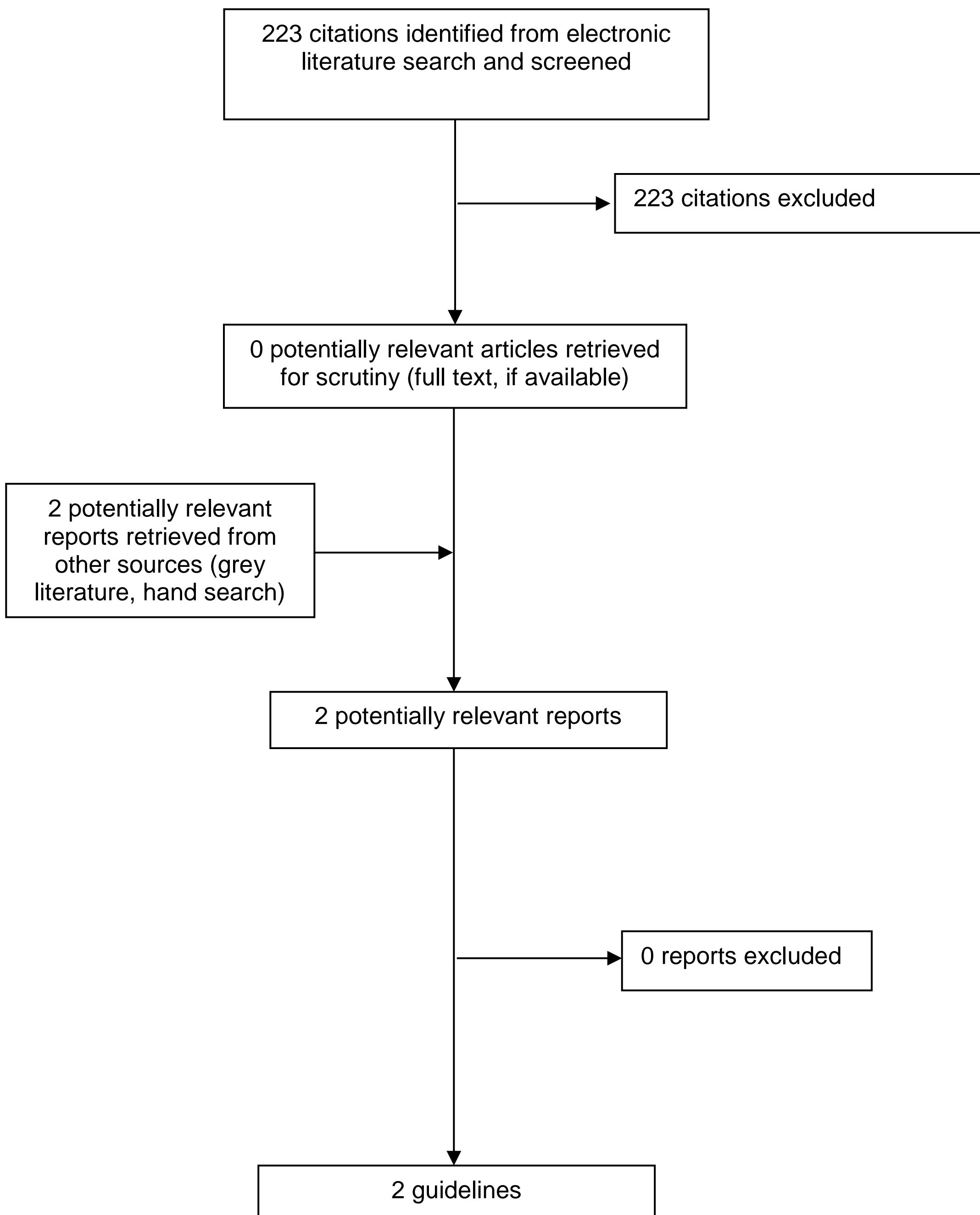
Appendix 1: Selection of Included Studies



Appendix 2: Characteristics of Included Studies

Table 2: Characteristics of Included Guidelines

First Author, Society/Group Name, Publication Year, Country, Funding	Intended Users/ Target Population	Intervention and Practice Considered	Major Outcomes Considered	Evidence Collection, Selection and Synthesis	Recommendations Development and Evaluation	Guideline Validation
RGPs of Ontario, Wong et al., 2011[11] Canada Funding: Ontario Local Health Integration Network	Intended users: Hospitals and Ontario Local Health Integration Network Target population: Frail senior patients	Management of older adults in hospital settings.	Improved physical and cognitive function, decreased rates of institutionalization, decreased length of hospital stay, improved patient and family satisfaction, and better human resource knowledge, collaboration, and retention.	Hospital self-assessment report reviewed by each RPG clinical review team and LHINs to analyze the quantitative and qualitative information. The level of evidence and grade of recommendations were not assessed.	Clinical review team from each RPG reviewed and provided comments on the provincial summary, first independently and then collectively via teleconference sessions. Agreements of recommendations were reached by consensus.	No guideline validation reported
Grey et al., 2018[10] Ireland Funding: Health Research Board (HRB) Applied Research Projects in Dementia 2015 programme	Intended users: Acute Hospitals and non-acute healthcare facilities Target population: Patients with dementia, families, visitors and staff	Physical structure designing for people with dementia in the acute hospital setting and non-acute healthcare facilities	Levels of design and intervention	In consultation with key documents and normative references. The level of evidence and grade of recommendations were not assessed.	In collaboration with The Atlantic Philanthropies and the department of health. A research team working in collaboration with people living with dementia, their families and staff and management of a range of hospitals, as well as the heath service executive and the architectural profession	No guideline validation reported

HRB = Health Research Board; LHINs = Local Health Integration Networks; RGPs = Regional Geriatric Programs

Appendix 3: Quality Assessment of Included Studies

Table 3: Quality Assessment of Guidelines

AGREE II checklist[9]	RGPs of Ontario, Wong et al., 2011[11]	Grey et al., 2018[10]
Scope and purpose		
1. Objectives and target patients population were explicit	Yes	Yes
2. The health question covered by the guidelines is specifically described	Yes	Yes
3. The population to whom the guidelines is meant to apply is specifically described	Yes	Yes
Stakeholder involvement		
4. The guideline development group includes individuals from all relevant professional groups	Yes	Yes
5. The views and preferences of the target population have been sought	Yes	Yes
6. The target users of the guideline are clearly defined	Yes	Yes
Rigour of development		
7. Systematic methods were used to search for evidence	Not clear	Not clear
8. The criteria for selecting the evidence are clearly described	Yes	Yes
9. The strengths and limitations of the body of evidence are clearly described	No	No
10. The methods of formulating the recommendations are clearly described	Yes	Yes
11. The health benefits, side effects, and risks have been considered in formulating the recommendations	Yes	Yes
12. There is an explicit link between the recommendations and the supporting evidence	Yes	Yes
13. The guideline has been externally reviewed by experts prior to its publication	Not clear	Not clear
14. A procedure for updating the guideline is provided	No	No
Clarity of presentation		
15. The recommendations are specific and unambiguous	Yes	Yes
16. The different options for management of the condition or health issue are clearly presented	Yes	Yes
17. Key recommendations are easily identified	Yes	Yes
Applicability		
18. The guideline describes facilitators and barriers to its application	Yes	Yes
19. The guidelines provides advice and/or tools on how the recommendations can be put into practice	Yes	Yes
20. The potential resource (cost) implications of applying the recommendations have been considered	Not clear	Not clear
21. The guideline presents monitoring and/or auditing criteria	Yes	Yes
Editorial independence		

AGREE II checklist[9]	RGPs of Ontario, Wong et al., 2011[11]	Grey et al., 2018[10]
22. The views of the funding body have not influenced the content of the guideline	Not clear	Not clear
23. Competing interests of guideline development group members have been recorded and addressed	No	No

RGPs = Regional Geriatric Programs

Appendix 4: Main Study Findings and Author's Conclusions

Table 4: Summary of Findings of Included Guidelines

Recommendations
RGPO, Wong et al., 2011[11]
Recommendations for Hospitals *"ORGANIZATIONAL SUPPORT* *1) Establish board and/or strategic plan commitments for a Senior Friendly Hospital* *2) Designate a senior executive/medical leader in the hospital to lead and be responsible for senior friendly initiatives across the organization* *3) Train and empower a clinical geriatrics champion(s) to act as a peer resource and to support practice and policy change across the organization* *4) Commit to the training and development of human resources via seniors-focused skill development* *PROCESSES OF CARE* *5) Implement inter-professional protocols across hospital departments to optimize the physical, cognitive, and psychosocial function of older patients – these processes should include high risk screening, prevention measures, management strategies, and monitoring/evaluation processes* *6) Support transitions in care by implementing practices and developing partnerships that promote inter-organizational collaboration with community and post-acute services* *EMOTIONAL AND BEHAVIOURAL ENVIRONMENT* *7) Provide all staff, clinical and non-clinical, with seniors sensitivity training to promote a senior friendly culture throughout the hospital's operations* *8) Apply a senior friendly lens to patient-centred care and diversity practices, so that the hospital promotes maximal involvement of older patients and families/caregivers in their care consistent with their personal values (e.g. cultural, linguistic, spiritual)* *ETHICS IN CLINICAL CARE AND RESEARCH* *9) Provide access to a clinical ethicist or ethics consultation service to support staff, patients, and families in challenging ethical situations* *10) Develop formal practices and policies to ensure that the autonomy and capacity of older patients are observed* *PHYSICAL ENVIRONMENT* *11) Utilize senior friendly design resources, in addition to accessibility guidelines, to inform physical environment planning, supply chain and procurement activities, and ongoing maintenance* *12) Conduct regular audits of the physical environment and implement improvements informed by senior friendly design principles and by personnel trained on the clinical needs of frail populations"*[11] (*p8*)
Recommendations for Local Health Integration Networks (LHINs) *"1) Provide support* to hospitals to operationalize Senior Friendly Hospital action plans, ensuring coordinated implementation of evidence informed practice across the province.* *2) Designate a Senior Friendly Hospital champion within the geography of each LHIN.* *3) Convene a LHIN-wide organizing body (e.g. Steering Committee) to facilitate integrated service planning with respect to senior friendly care that supports the needs of the community and encourages cross-sector partnerships in health care delivery – consider including representation from hospital organizations, primary care, community services, LTC facilities, seniors, and their families.* *4) Ensure alignment of the Ontario Senior Friendly Hospital Strategy with other provincial priorities and processes (e.g. Hospital Quality Improvement Plans).* *5) Identify metrics to assist hospitals in measuring the success of province-wide Senior Friendly Hospital initiatives.* *Support could include: educational resources, best practice guidelines, etc."[11] (*p9*)

Recommendations
Grey et al., 2018[10]
For experiencing the whole hospital, the full document provides guidance regarding: • Integration and interface with the community. • Main external and internal patient route. • Key internal and external public realm spaces. For site location, approach and entry, the full document provides guidance regarding: • Hospital location and ease of access for hospital users. • Adjacent public spaces and access points, including adjacent roads, streets and pavements, public transport stops, street furniture, lighting, and access points to the hospital grounds. For campus design and onsite circulation, the full document provides guidance regarding: • Overall campus design, including campus character and overall architectural quality, as well as key external public spaces. • Onsite patient movement, including main pedestrian circulation routes, wayfinding, external lighting and street furniture, ramps, steps, landings and handrails, as well as planting, vehicle circulation, set-down, and parking. For building entry and internal circulation, the full document provides guidance regarding: • Entrance and covered areas, and main entry doors. • Entrance lobby, main circulation areas and associated spaces. • Vertical circulation including stairs and lifts. For key internal and external spaces, the full document provides guidance regarding: • Public common areas including café, restaurants, shops, and public toilets. • Outpatient departments, emergency departments, and day services. • Inpatient ward including overall design and design of single patient rooms, multi-bed patient rooms, day rooms and family rooms. • External spaces including gardens, courtyards, balconies, terraces and green roofs. For building components, the full document provides guidance regarding: • Building materials, finishes, and fit-out elements including windows, doors and ironmongery, electrical fittings and controls, handrails and grab rails, wardrobes and cupboards, as well as artwork and orientation. • Signage and graphics. For technology, the full document provides guidance regarding: • Therapeutic and patient safety technology, as well as assistive technology, and information and communication technology. For internal environment, the full document provides guidance regarding: • Natural and artificial light. • Heating and ventilation, including thermal comfort, air quality, and acoustic qualities and sounds. The full guideline is available at: http://dementia.ie/images/uploads/site-images/UD-DFH-Guidelines-2018-Full-doc-lw-res-compressed-A1.pdf