

CADTH RAPID RESPONSE REPORT: SUMMARY OF ABSTRACTS

Physical Restraints for Use in Long-Term Care Settings: Clinical Effectiveness and Guidelines

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Authors: Yan Li, Charlene Argáez

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Research Questions

1. What is the clinical effectiveness of using physical restraints for adults in long-term care settings?
2. What are the evidence-based guidelines regarding the use of physical restraints for adults in long-term care settings?

Key Findings

One evidence-based guideline was identified regarding the use of physical restraints for adults in long-term care settings.

Methods

A limited literature search was conducted by an information specialist on key resources including PubMed, the Cochrane Library, the University of York Centre for Reviews and Dissemination (CRD) databases, the websites of Canadian and major international health technology agencies, as well as a focused Internet search. The search strategy was comprised of both controlled vocabulary, such as the National Library of Medicine's MeSH (Medical Subject Headings), and keywords. The main search concepts were physical restraints and long-term care. No filters were applied to limit the retrieval by study type. The search was also limited to English language documents published between January 1, 2015 and February 18, 2020. Internet links were provided, where available.

Selection Criteria

One reviewer screened citations and selected studies based on the inclusion criteria presented in Table 1.

Table 1: Selection Criteria

Population	Adults in long-term care settings (e.g., nursing homes, long-term care facilities)
Intervention	Physical restraints (e.g., mechanical restraint devices, waist belts, vests, jackets, limb ties, one-piece suits, wheelchair bars and brakes, geriatric chairs with tabletops)
Comparator	Q1: Care provided without the use of physical restraints; usual care; alternative physical restraints Q2: No comparator
Outcomes	Q1: Clinical effectiveness (e.g., risk for falls, satisfaction with care, deconditioning behaviors, health-related quality of life, safety [e.g., rates of adverse events]) Q2: Recommendations regarding best practices (e.g., protocols, appropriate patient populations, devices that are most appropriate or are inappropriate)
Study Designs	Health technology assessments, systematic reviews, randomized controlled trials, non-randomized studies, and evidence-based guidelines

Results

Rapid Response reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessments and systematic reviews are presented first. These are followed by randomized controlled trials, non-randomized studies, and evidence-based guidelines.

One evidence-based guideline¹ was identified regarding the use of physical restraints for adults in long-term care settings. No relevant health technology assessments, systematic reviews, randomized controlled trials, or non-randomized studies were identified regarding the clinical effectiveness of using physical restraints for adults in long-term care setting.

Additional references of potential interest are provided in the appendix.

Overall Summary of Findings

One evidence-based guideline¹ was identified regarding the use of physical restraints for adults in long-term care settings. Applicable to older adults residing in long-term care, the Registered Nurses' Association of Ontario guideline recommends that physical restraints should be used as a last resort.¹ If restraints are needed, principles of least restraint should be followed.¹

References Summarized

Health Technology Assessments

No literature identified.

Systematic Reviews and Meta-analyses

No literature identified.

Randomized Controlled Trials

No literature identified.

Non-Randomized Studies

No literature identified.

Guidelines and Recommendations

1. Registered Nurses Association of Ontario. Delirium, dementia, and depression in older adults: assessment and care. 2nd ed. (*Clinical best practice guidelines*). Toronto (ON): RNAO; 2016 Jul: https://rnao.ca/sites/rnao-ca/files/bpg/RNAO_Delirium_Dementia_Depression_Older_Adults_Assessment_and_Care.pdf
Accessed 2020 Feb 21.
See: *RECOMMENDATION 1.6 (p.43)*

Appendix — Further Information

Previous CADTH Reports

2. Lachance C, Wright MD. Avoidance of physical restraint use among hospitalized older adults: a review of clinical effectiveness and guidelines. (*CADTH rapid response report: summary with critical appraisal*). Ottawa (ON): CADTH; 2019 Feb: <https://www.cadth.ca/sites/default/files/pdf/htis/2019/RC1079%20Restraint%20Use%20and%20Seniors%20Final.pdf>
Accessed 2020 Feb 21.
3. Wells C, Argáez C. Environmental restraints for dementia patients in long-term care facilities: clinical effectiveness and guidelines. (*CADTH rapid response report: summary of abstracts*). Ottawa (ON): CADTH; 2017 Dec: <https://www.cadth.ca/sites/default/files/pdf/htis/2017/RB1177%20Restrains%20Final.pdf>
Accessed 2020 Feb 21.

Systematic Reviews and Meta-analyses – Unclear Comparator

4. Bellenger EN, Ibrahim JE, Lovell JJ, Bugeja L. The Nature and Extent of Physical restraint-Related Deaths in Nursing homes: A Systematic review. *J Aging Health*. 2018;30(7):1042-1061.
[PubMed: PM28553823](#)
5. Vanderbilt Evidence-based Practice Center, Simmons S, Schnelle J, Slagle J, Sathe NA, Stevenson D, et al. Resident safety practices in nursing home settings. (*Technical brief no. 24*). Rockville (MD): Agency for Healthcare Research and Quality; 2016 May: https://effectivehealthcare.ahrq.gov/sites/default/files/pdf/nursing-home-safety_technical-brief.pdf
Accessed 2020 Feb 24.

Evidence-based Guidelines – Unclear Setting

6. National Institute for Health Care and Excellence. Violence and aggression: short-term management in mental health, health and community settings (*NICE guideline NG10*). 2015 May; <https://www.nice.org.uk/guidance/ng10/resources/violence-and-aggression-shortterm-management-in-mental-health-health-and-community-settings-pdf-1837264712389> Accessed 2020 Feb 24.

Clinical Practice Guidelines

7. Bellenger EN, Ibrahim JE, Kennedy B, Bugeja L. Prevention of physical restraint use among nursing home residents in Australia: The top three recommendations from experts and stakeholders. *Int J Older People Nurs*. 2019;14(1):e12218-e12218.
[PubMed: PM30609220](#)

Additional References

8. Ontario Long Term Care Association. This is long-term care 2019. Toronto (ON): Ontario Long Term Care Association; 2019 Apr:
<https://www.oltca.com/OLTCA/Documents/Reports/TILTC2019web.pdf>
 Accessed 2020 Feb 24.
9. Canadian Nurses Association, Canadian Gerontology Nurses Association. Nursing: gerontology. Toronto (ON): Choosing Wisely Canada; 2018 Apr:
<https://choosingwiselycanada.org/wp-content/uploads/2017/06/Nursing-Gerontology.pdf> Accessed 2020 Feb 24.
 See: Point #5 – Don't use restraints with older persons unless all other alternatives have been explored.
10. Canadian Institute for Health Information. Dementia in long-term care. 2018;
<https://www.cihi.ca/en/dementia-in-canada/dementia-across-the-health-system/dementia-in-long-term-care>
 Accessed 2020 Feb 24.
11. Freeman S, Spirgiene L, Martin-Khan M, Hirdes JP. Relationship between restraint use, engagement in social activity, and decline in cognitive status among residents newly admitted to long-term care facilities. *Geriatr Gerontol Int*. 2017;17(2):246-255.
[PubMed: PM26822624](#)