

## Appendix A

## Search Strategy

Upon an initial database search, some of the articles did not refer to older adults specifically and instead discussed the use of bedrails in nursing home settings. We used the search terms “nursing home”, “long-term care”, “long-term care”, “longterm care”, “assisted living”, and “assisted-living” to include articles examining the use of bedrails for fall prevention that did not explicitly state “older adult” or its related terms. The use of “n3” in the search terms meant that if the words “bed” and “rail” are within three words of each other in an article, the search results would include that article. The use of the truncated term was to allow inclusion of all terms that had “injur-” as a root.

Table A1

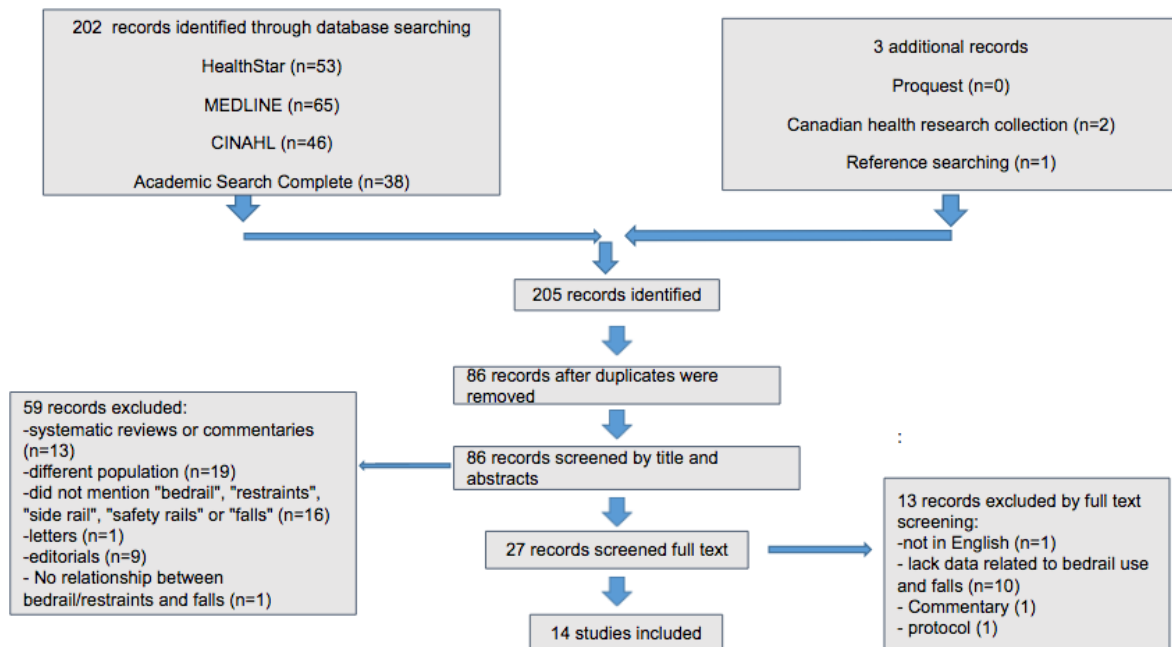
Search Terms Used Based on PICO Question

Population	Intervention	Outcome
older adult* senior* elder* aged geriatric* nursing home* long-term care long-term care assisted living assisted-living	bed n3 rail* bedrail* bed-rail* side n3 rail* siderail* side-rail*	fall* injur*

Thank you to Hayden, A., MLIS, MSc, PhD, University of Calgary for providing support in searching the grey literature.

## Appendix B

## PRISMA diagram for systematic review on bedrail safety



## Appendix C

## MMAT scores

Study	Type	Criteria	Score
Janshahi, N., & Wu, W. K. (2009). Effects of Potentially Inappropriate Psychoactive Medications on Falls in US Nursing Home Residents. <i>Drugs &amp; aging</i> , 26(10), 853-860.	Quantitative Descriptive	4.1	5/5
		4.2	
		4.3	
		4.4	
		4.5	
Canadian Institute for Health Information. (2007). <i>Resident Safety: Characteristics associated with falling in Ontario complex continuing care</i> .	Quantitative Descriptive	4.1	4/5
		4.2	
		4.3	
		4.4	
		4.5	
Cecchi, E., Wagner, L. M., Brush, B. L., Boltz, M., Renz, S., & Talarico, K. A. (2007). Consequences of an intervention to reduce restrictive side rail use in nursing homes. <i>Journal of the American Geriatrics Society</i> , 55(3), 334-341.	Quantitative Non-randomized	3.1	4/5
		3.2	
		3.3	
		3.4	
		3.5	
Enns, E., Rhemtulla, R., Foy, V., Engetel, K., & Holroyd-Leduc, J. M. (2014). A controlled quality improvement trial to reduce the use of physical restraints in older hospitalized adults. <i>Journal of the American Geriatrics Society</i> , 62(3), 541-545.	Quantitative Randomized Controlled	2.1	4/5
		2.2	
		2.3	
		2.4	
		2.5	
Enns, E., Bourcier, P., & Enns, A. (2008a). Shielding or caging? Healthcare staffs' views on fall risk and protection in Stockholm. <i>International journal of older people nursing</i> , 3(1), 46-54.	Qualitative	1.1	5/5
		1.2	
		1.3	
		1.4	
		1.5	
Enns, E., Enns, A., Wablin, T. B. R., Winkler, B., & Sandmark, H. (2009). Falls in somatic and dementia wards at Community Care Units. <i>Scandinavian journal of caring sciences</i> , 23(1), 2-10.	Quantitative Descriptive	4.1	3/5
		4.2	
		4.3	
		4.4	
		4.5	
Enns, E., Robins, Wablin, T. B. R., Winkler, B., Enns, A., & Sandmark, H. (2008b). Falls and fall risk among nursing home residents. <i>Journal of clinical nursing</i> , 17(1), 126-134.	Quantitative Descriptive	4.1	3/5
		4.2	
		4.3	
		4.4	
		4.5	
Konke, S., Muhlhauser, I., Gerlach, A., Heut, A., Haastert, B., Möller, R., & Meyer, G. (2012). Effect of a guideline-based multicomponent intervention on use of physical restraints in nursing homes: a randomized controlled trial. <i>Jama</i> , 307(20), 2177-2184.	Quantitative Randomized Controlled	2.1	5/5
		2.2	
		2.3	
		2.4	
		2.5	
López-Soto, P. J., Szwedzky, M. H., Sackett-Lundeen, L. L., De Giorgi, A., Rodríguez-Borrego, M. A., Manfredini, R., & Fabian, F. (2016). Temporal patterns of in-hospital falls of elderly patients. <i>Nursing research</i> , 65(6), 435-445.	Quantitative Descriptive	4.1	3/5
		4.2	
		4.3	
		4.4	
		4.5	
Luo, H., Lin, M., & Castle, N. (2011). Physical restraint use and falls in nursing homes: a comparison between residents with and without dementia. <i>American Journal of Alzheimer's Disease &amp; Other Dementias</i> , 26(1), 44-50.	Quantitative Descriptive	4.1	5/5
		4.2	
		4.3	
		4.4	
		4.5	
Meyer, G., Konke, S., Haastert, B., & Muhlhauser, I. (2009). Restraint use among nursing home residents: Cross-sectional study and prospective cohort study. <i>Journal of Clinical Nursing</i> , 18, 981-990. doi: 10.1111/j.1365-2702.2008.02460.x	Quantitative Non Randomized	3.1	3/5
		3.2	
		3.3	
		3.4	
		3.5	
Terranova, C., Cardin, F., Magella, B., Amato, B., & Milicello, C. (2012). Death after an accidental fall of a 101 year old hospitalized patient. Medico-legal implication of falling in geriatrics. <i>BMC surgery</i> , 12(1), S34.	Qualitative	1.1	5/5
		1.2	
		1.3	
		1.4	
		1.5	
Yabe, M., Hirose, Y., & Toyoshima, H. (2007). Bedrail-related rhabdomyolysis caused by abdominal wall injury. <i>Geriatrics &amp; Gerontology International</i> , 7(4), 406-408.	Qualitative	1.1	5/5
		1.2	
		1.3	
		1.4	
		1.5	

Notes

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