

CADTH RAPID RESPONSE REPORT: SUMMARY OF ABSTRACTS

Mattresses or Overlays Used in Palliative End-of-Life Care: Clinical Evidence and Guidelines

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Research Questions

1. What is the clinical evidence regarding patient comfort and satisfaction with mattresses or mattress overlays used in palliative end-of-life care?
2. What are the evidence-based guidelines regarding the use of mattresses or mattress overlays in palliative end-of-life care?

Key Findings

One non-randomized study and one evidence-based guideline were identified regarding the use of mattresses in palliative end-of-life care.

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 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, 2014 and January 18, 2019. 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	Patients requiring palliative end-of-life care in a facility or at home
Intervention	Mattresses overlays or pressure-relieving surfaces (e.g., specialized mattresses, gel pads, sheepskins)
Comparator	Q1: No specialized surface; Compared with each other Q2: No comparator
Outcomes	Q1: Patient comfort, quality of life, ease of use Q2: Guidelines
Study Designs	Health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, non-randomized studies, evidence-based guidelines

Results

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

One non-randomized study and one evidence-based guideline were identified regarding mattresses or overlays used in palliative end-of-life care. No relevant health technology assessments, systematic reviews, meta-analyses, or randomized controlled trials were identified.

Additional references of potential interest are provided in the appendix.

Overall Summary of Findings

One non-randomized study¹ regarding mattresses used in palliative end-of-life care was identified; however, the results specific to patient satisfaction and comfort were not stated in the abstract.

Additionally, one evidence-based guideline² was identified regarding mattresses used in palliative end-of-life care. The authors recommend that pressure-relieving mattresses be provided to patients at the end-of-life to maximize comfort and care.²

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

1. Meaume S, Marty M. Pressure ulcer prevention and healing using alternating pressure mattress at home: the PARESTRY project. *J Wound Care*. 2015;24(8):359-365.
[PubMed: PM26562378](#)

Guidelines and Recommendations

2. Levy M, Smith T, Alvarez-Perez et al. Palliative care version 1.2016. *J Natl Compr Canc Netw*. 2016;14(1):82-113.
[PubMed: PM26733557](#)

Appendix — Further Information

Previous CADTH Reports

3. Natural sheepskins for prevention or treatment of pressure ulcers: clinical effectiveness, cost-effectiveness, and guidelines. (*CADTH Rapid response report: summary of abstracts*). Ottawa (ON): CADTH; 2017: <https://www.cadth.ca/natural-sheepskins-prevention-or-treatment-pressure-ulcers-clinical-effectiveness-cost-effectiveness>. Accessed 2019 Jan 23.
4. Emerging technologies for the prevention of pressure ulcers in acute care settings: a review of clinical and cost-effectiveness and guidelines. (*CADTH Rapid response report: summary with critical appraisal*). Ottawa (ON): CADTH; 2016: <https://www.cadth.ca/emerging-technologies-prevention-pressure-ulcers-acute-care-settings-review-clinical-and-cost-0>. Accessed 2019 Jan 23.
5. Therapeutic bedding for chronic pain: clinical effectiveness. (*CADTH Rapid response report: reference list*). Ottawa (ON): CADTH; 2016: <https://www.cadth.ca/therapeutic-bedding-chronic-pain-clinical-effectiveness-0>. Accessed 2019 Jan 23.
6. Mattresses for chronic back or neck pain: a review of the clinical effectiveness and guidelines. (*CADTH Rapid response report: summary with critical appraisal*). Ottawa (ON): CADTH 2014; <https://www.cadth.ca/mattresses-chronic-back-or-neck-pain-review-clinical-effectiveness-and-guidelines>. Accessed 2019 Jan 23.

Randomized Controlled Trials – Study Protocol

7. Brown S, Smith IL, Brown JM, et al. Pressure relieving support surfaces: a randomised evaluation 2 (PRESSURE 2): study protocol for a randomised controlled trial. *Trials*. 2016;17(1):604. [PubMed: PM27993145](https://pubmed.ncbi.nlm.nih.gov/27993145/)

Non-Randomized Studies

Alternative Population and Outcome

8. Girolami S, Moore A, Haper C, Betts C, Woodward T. A prospective, observational study of high-specification foam immersion surfaces used in populations at high risk for pressure ulcers. *Ostomy Wound Manage*. 2014;60(8):30-39. [PubMed: PM25105476](https://pubmed.ncbi.nlm.nih.gov/25105476/)

Alternative Population

9. Singh CD, Shoqirat N. Pressure redistribution crib mattress: a quality improvement project. *J Wound Ostomy Continence Nurs*. 2019;46(1):62-64. [PubMed: PM30608343](https://pubmed.ncbi.nlm.nih.gov/30608343/)

Guidelines and Recommendations – Alternative Population

10. National Institute for Health Care and Excellence. Pressure ulcers: prevention and management. (*Clinical guideline CG17*) 2014; <https://www.nice.org.uk/guidance/cg179>. Accessed 2019 Jan 23.

Review Articles

11. NIHR Dissemination Centre. Comprehensive care: older people living with frailty in hospitals. 2017; <https://www.dc.nihr.ac.uk/themed-reviews/Comprehensive-Care-final.pdf>. Accessed 2019 Jan 23.