TITLE: Fall Prevention Strategies for Adults in Acute Care Following Orthopedic Surgery: Clinical Effectiveness and Guidelines

DATE: 09 February 2015

RESEARCH QUESTIONS

1. What is the clinical effectiveness of fall prevention strategies for adults in acute care following hip or knee arthroplasty, surgery for hip fractures, or spinal surgeries?

2. What are the evidence-based guidelines regarding fall prevention strategies for adults in acute care following hip or knee arthroplasty, surgery for hip fractures, or spinal surgeries?

KEY FINDINGS

One systematic review, three non-randomized studies, and one evidence-based guideline were identified regarding fall prevention strategies for adults in acute care following hip or knee arthroplasty, surgery for hip fractures, or spinal surgeries.

METHODS

A limited literature search was conducted on key resources including PubMed, The Cochrane Library (2015, Issue 1), 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, 2010 and January 29, 2015. Internet links were provided, where available.

The summary of findings was prepared from the abstracts of the relevant information. Please note that data contained in abstracts may not always be an accurate reflection of the data contained within the full article.
SELECTION CRITERIA

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

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<th>Table 1: Selection Criteria</th>
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<td><strong>Population</strong></td>
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<td><strong>Outcomes</strong></td>
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<td><strong>Study Designs</strong></td>
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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 systematic review, three non-randomized studies, and one evidence-based guideline were identified regarding fall prevention strategies for adults in acute care following hip or knee arthroplasty, surgery for hip fractures, or spinal surgeries. No relevant health technology assessments, meta-analyses, or randomized controlled trials were identified.

Additional references of potential interest are provided in the appendix.

OVERALL SUMMARY OF FINDINGS

One systematic review,\(^1\) three non-randomized studies,\(^2,4\) and one evidence-based guideline\(^5\) were identified regarding fall prevention strategies for adults in acute care following hip or knee arthroplasty, surgery for hip fractures, or spinal surgeries.

The systematic review\(^1\) examined the clinical effectiveness of various interventions to reduce the incidence of falls in health care facilities. The results showed that for patients who had undergone surgery for a hip fracture, multidisciplinary care in a geriatric ward significantly reduced the risk and rate of falling compared with usual care in an orthopedic ward.

Three non-randomized studies\(^2,4\) evaluated fall prevention strategies for total knee arthroplasty (TKA) patients. One study evaluated the clinical effectiveness of a combination of clinician and patient education, the Hendrich II Fall Risk Model, fall-alert signs, and patient lifts, and reported that the rate of falls decreased over the 10 years following implementation of these measures.\(^2\) Additionally, post-TKA fall rates were lower in patients who had received a knee immobilizer brace\(^3\) or nurse-led, pre-operative education\(^4\) compared with those who had not received these interventions.
A guideline on the management of hip fractures from the American Academy of Orthopedic Surgeons recommends supervised occupational and physical therapy for fall prevention in a variety of health care settings.
REFERENCES SUMMARIZED

Health Technology Assessments
No literature identified.

Systematic Reviews and Meta-analyses


Randomized Controlled Trials
No literature identified.

Non-Randomized Studies


Guidelines and Recommendations


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APPENDIX – FURTHER INFORMATION:

Randomized Controlled Trials – Mixed Population


Non-Randomized Studies – Unclear Population


Review Articles


Additional References

