TITLE: General versus Spinal Anesthetic for Hip Fracture Patients: Comparative Clinical Effectiveness and Guidelines

DATE: 15 January 2016

RESEARCH QUESTIONS

1. What is the comparative clinical effectiveness of spinal versus general anesthetic for patients with hip fractures?

2. What are the evidence-based guidelines regarding the choice of spinal or general anesthetic for patients with hip fractures?

KEY FINDINGS

One randomized controlled trial, 13 non-randomized studies, and three evidence-based guidelines were identified regarding spinal versus general anesthetic for patients with hip fractures.

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, ECRI, 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 for question 1. Methodological filters were applied to limit retrieval to guidelines for question 2 and question 3. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2011 and January 11, 2016. 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

<table>
<thead>
<tr>
<th>Population</th>
<th>Patients with hip fractures requiring surgery</th>
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</thead>
<tbody>
<tr>
<td>Intervention</td>
<td>General anesthetic</td>
</tr>
<tr>
<td>Comparator</td>
<td>Spinal anesthetic</td>
</tr>
<tr>
<td>Outcomes</td>
<td>Clinical effectiveness (mortality, mortality at 30 days, mortality at one year – corrected for timing for surgery [within 48 hours/after 48 hours] and for comorbidities [e.g., COPD, cardiovascular])</td>
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<tr>
<td></td>
<td>Guidelines and recommendations (which anesthetic to use)</td>
</tr>
<tr>
<td>Study Designs</td>
<td>Health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, non-randomized studies, evidence-based guidelines</td>
</tr>
</tbody>
</table>

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 randomized controlled trial, 13 non-randomized studies, and three evidence-based guidelines were identified regarding spinal versus general anesthetic for patients with hip fractures. No health technology assessments, systematic reviews, or meta-analyses were identified.

Additional references of potential interest are provided in the appendix.

Health Technology Assessments
No literature identified.

Systematic Reviews and Meta-analyses
No literature identified.

Randomized Controlled Trials


Non-Randomized Studies


Guidelines and Recommendations


See: 23. Anesthesia, page 64

See: Section 8.2, p. 82-87
Short guideline: http://www.nice.org.uk/guidance/cg124/resources/hip-fracture-management-35109449902789
See: Section 1.4, p. 11

PREPARED BY:
Canadian Agency for Drugs and Technologies in Health
Tel: 1-866-898-8439
www.cadth.ca
APPENDIX – FURTHER INFORMATION:

Randomized Controlled Trials – Hip Fracture Population not Specified


Non-Randomized Studies

Hip Fracture Population not Specified


Alternate Comparator

**Additional Outcomes**


**Clinical Practice Guidelines – Uncertain Methodology**