CADTH RAPID RESPONSE REPORT: SUMMARY OF ABSTRACTS

Calcium Phosphate Bone Injections During Knee, Hip, or Ankle Repairs in Adults: Clinical Effectiveness, Cost-Effectiveness, and Guidelines
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Questions or requests for information about this report can be directed to requests@cadth.ca
Research Questions

1. What is the clinical effectiveness of calcium phosphate bone injections during knee, hip, or ankle repairs in adults?
2. What is the cost-effectiveness of calcium phosphate bone injection during knee, hip, or ankle repairs in adults?
3. What are the evidence-based guidelines regarding the use of calcium phosphate bone substitutes prior to knee, hip, or ankle repairs in adults?

Key Findings

No relevant literature was identified regarding the clinical effectiveness or cost-effectiveness of calcium phosphate bone injections during knee, hip, or ankle repairs in adults. In addition, no evidence-based guidelines were identified regarding the use of calcium phosphate bone substitutes prior to knee, hip, or ankle repairs in adults.

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 subchondroplasty or calcium phosphate bone injections and ankle, hip, or knee disorders. 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 January 23, 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.

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<td><strong>Population</strong></td>
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<td><strong>Intervention</strong></td>
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<td><strong>Comparator</strong></td>
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| **Outcomes** | Q1: Clinical effectiveness (e.g., pain [e.g., measured using pain scales], Oxford scores, conversion rate to joint replacement, failure rate, change in bone quality, quality of life, safety [e.g., rates of adverse events])
Q2: Cost-effectiveness
Q3: Recommendations |
| **Study Designs** | Health technology assessments, systematic reviews, randomized controlled trials, non-randomized studies, economic evaluations, 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, economic evaluations, and evidence-based guidelines.

No relevant health technology assessments, systematic reviews, randomized controlled trials, non-randomized studies, economic evaluations or evidence-based guidelines were identified regarding the use of calcium phosphate bone injections during knee, hip, or ankle repairs in adults.

Additional references of potential interest are provided in the appendix.

Overall Summary of Findings
No relevant literature was found regarding clinical effectiveness or cost-effectiveness of calcium phosphate bone injections during knee, hip, or ankle repairs in adults, therefore no summary can be provided.

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.

Economic Evaluations
No literature identified.

Guidelines and Recommendations
No literature identified.
Appendix — Further Information

Non-Randomized Studies

No Comparator


Trials in Recruitment Phase


Alternative Population


Case Studies


Review Articles


Additional References