TITLE: Smith & Nephew Journey II Oxinium Total Knee Replacement System: Clinical and Cost-Effectiveness and Guidelines

DATE: 19 March 2015

RESEARCH QUESTIONS

1. What is the clinical effectiveness of the Smith & Nephew Journey II oxinium total knee replacement system in patients requiring total knee replacement?

2. What is the cost-effectiveness of the Smith & Nephew Journey II oxinium total knee replacement system in patients requiring total knee replacement?

3. What are the evidence-based guidelines associated with the use of the Smith & Nephew Journey II oxinium total knee replacement system in patients requiring total knee replacement?

KEY FINDINGS

Five non-randomized studies were identified regarding the Smith & Nephew Journey II oxinium total knee replacement system in patients requiring total knee replacement.

METHODS

A limited literature search was conducted on key resources including PubMed, The Cochrane Library (2015, Issue 2), 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, 2005 and March 5, 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.

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SELECTION CRITERIA

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

<table>
<thead>
<tr>
<th>Population</th>
<th>Patients requiring total knee replacement</th>
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<tbody>
<tr>
<td>Intervention</td>
<td>Smith &amp; Nephew Journey II oxinium total knee replacement system</td>
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<tr>
<td>Comparator</td>
<td>Alternate total knee replacement systems (e.g., Stryker Triathlon Total Knee and the Zimmer NexGen®)</td>
</tr>
<tr>
<td>Outcomes</td>
<td>Clinical effectiveness (e.g., longevity, wear, and revision rate; comparative effectiveness, safety – patient benefits and harms)</td>
</tr>
<tr>
<td>Study Designs</td>
<td>Health technology assessment reports, systematic reviews, meta-analyses, randomized controlled trials, non-randomized studies, economic evaluations, and evidence-based guidelines</td>
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</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, economic evaluations, and evidence-based guidelines.

Five non-randomized studies were identified regarding Smith & Nephew Journey II oxinium total knee replacement system in patients requiring total knee replacement. No relevant health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, economic evaluations, or evidence-based guidelines were identified.

Additional references of potential interest are provided in the appendix.

OVERALL SUMMARY OF FINDINGS

Five non-randomized studies\(^1\)\(^-\)\(^5\) were identified regarding Smith & Nephew Journey total knee replacement systems in patients requiring total knee replacement. One study\(^1\) reported high complication rates (e.g., 1.65 complications requiring major revision surgery per 100 component years) with the Journey bicruciate substituting total knee replacement. Two studies\(^2\)\(^,\)\(^3\) comparing Journey Bicruciate Stabilised knee replacement systems to Scorpio Non-Restrictive Geometry reported better clinical results in the Journey group; in both studies, patients with Journey knee replacements experienced more stiffness. Another study\(^4\) reported good clinical and radiological results with Journey; however, the authors reported that these outcomes did not differ significantly from conventional knee replacements. One study\(^5\) reported iliotibial band friction syndrome in 77 out of 1070 knees with Journey knee replacements.
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


Economic Evaluations
No literature identified.

Guidelines and Recommendations
No literature identified.

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APPENDIX – FURTHER INFORMATION:

Additional References

