

Summary of research proposal LROI



Title:

Revision after dual mobility cups in total hip arthroplasty: higher risks with certain combinations of cups and stems? An exploratory observational study based on nationwide data in the LROI.

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Abstract:

Recurrent dislocation is the most common cause of early major revision in total hip arthroplasty (THA). Dual mobility cups (DMC) have been developed to reduce dislocation, and their use has increased quickly.

In contrast to unipolar cups, DMC carry a different failure scenario. Most unipolar cups fail due to dislocation, whereas most DMC fail for loosening. Moreover, DMC can uniquely fail due to intra-prosthetic dislocation (IPD), for which revision surgery is unavoidable.

Given the increase in the use of DMC, it is vital to understand modes of failure. Based on personal clinical experience and expert opinion, prosthetic impingement seems to attribute to failure of DMC, and thicker femoral necks or certain brands of prostheses may have an increased revision risk. IPD being one of the possible failure modes raises the question what the failure rate is for the combinations of femoral components used with DMC.

In this study, we aim to 1) explore the reasons for revision of DMC, 2) examine whether certain DMC carry a higher risk of revision in general, and 3) explore whether certain combinations of DMC and femoral stems carry a higher risk of revision.

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