

## Summary of research proposal LROI



### **Title:**

Mortality risk following various surgical approaches in total hip arthroplasty: A Dutch national registry study

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### **Abstract:**

Total hip arthroplasty (THA) is one of the most successful and commonly performed surgeries in the world. As treatment for hip osteoarthritis (OA), THA has been shown to significantly improve pain relief and hip function. Additionally, survival rates of THA have been commendable.

Traditionally, THA is commonly performed using the posterolateral- and direct lateral approaches in The Netherlands. However, over the past decade, the direct anterior approach (DAA) has gained increasing popularity due to its smaller incision and minimal muscle- and soft tissue dissection. It has therefore been associated with superior postoperative pain relief and faster early rehabilitation compared to the other surgical approaches to THA.

Currently, the impact of the superior pain relief and faster rehabilitation on short-term mortality rate remains largely unexplored. It is hypothesized that due to faster rehabilitation, patients will mobilize faster and be discharged quicker. In other specialties, an association has been observed between faster mobilisation and a reduction of postoperative complications, potentially leading to lower mortality.

A significantly reduced mortality rate favoring the DAA would significantly impact arthroplasty selection, as patients with a higher preoperative mortality risk might favor a surgical approach associated with a lower mortality risk.

Therefore, the aim of this study was to compare the thirty-day and ninety-day mortality rate between the DAA and posterolateral-, direct lateral- and anterolateral approaches and determine risk factors for early mortality following THA.

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