

## Summary of research proposal LROI



### **Title:**

Anatomical total shoulder arthroplasty in patients under 65 compared to older patients- a study based on registry data from the LROI

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### **Abstract:**

Increasing numbers of primary shoulder arthroplasty are performed in the Netherlands (3673 in 2022), of which more than 10% in patients under 65 years in the Netherlands. Concerns exist about their functional deterioration and survivorship. Different shoulder arthroplasty options are available, but mostly anatomical total shoulder arthroplasties are used for younger patients. Patients under 65 are mostly a working population and are physically active with increased forces on their shoulder joint. Therefore, they are prone to progressive wear and loosening of their arthroplasty which likely increases revision numbers. On the other hand, the use of highly crosslinked polyethylene has shown a protective effect in simulator studies.

Therefore we aim to describe trends and revision rates in young patients (under 65) receiving an aTSA and will compare this to a comparable cohort of patients of older age (>65 years). Patient, surgical (use of PSI) and prosthesis characteristics (component types) in patients under 65 years based on Dutch Arthroplasty Register data since 2014 will be described. Revision rates and reason for revision, such as aseptic loosening and rotator cuff insufficiency, will be noted and compared with a cohort of older patients (>65 years) who received an aTSA in the Netherlands.

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