

## Summary of research proposal LROI



### **Title:**

Cross-cultural comparison of the Oxford Hip and Knee Scores in patients undergoing hip or knee replacement

### **Authors:**

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### **Abstract:**

The Oxford Hip and Knee Scores (OHS and OKS) are well-established measures to evaluate the patients' degree of pain and functional limitations after undergoing a hip or knee replacement. Numerous language versions of the OHS and OKS exist, for many of which clinimetric properties such as validity, reliability and responsiveness have been investigated, most often with a classical test theory approach. With a newer item response theory (IRT) approach, response patterns are modelled to reflect the underlying latent construct. IRT models for the OKS and OHS were recently developed using data from the National Health Service (NHS) patient-reported outcome measures (PROMs) program. Despite their established use, stringent evaluations of the OHS and OKS equivalence across language versions have not been performed. We aim to evaluate the validity of an IRT framework and measurement equivalence of the OHS and OKS across different language versions in patients undergoing a hip or knee replacement.

Data will be sourced from the United Kingdom NHS PROMs program, the Landelijke Registratie Orthopedische Interventies (LROI), the Danish Copenhagen University Hospital Hvidovre's local arthroplasty database, and the Swiss Geneva Arthroplasty Registry. The study will be conducted in 2024.

**Approval date:** September 2023