

Summary of research proposal LROI



Title:

Periprosthetic joint infections in total hip and knee arthroplasties: first and second revision rates and microbiological factors using a matched LROI-PREZIES dataset

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Abstract:

Periprosthetic joint infections (PJIs) remain a major complication in both total hip and knee arthroplasty (THA/TKA) and are associated with high morbidity, poor postoperative outcomes such as higher re-revision rates and even higher mortality rates. Our previous study has shown that the Dutch Arthroplasty Register (LROI) can be matched with the database of the Dutch National Nosocomial Surveillance Network (PREZIES), which is a healthcare associated infection surveillance network. The PREZIES database contains characteristics of early PJIs (≤ 90 days), such as the causative agents and the number of different microorganisms found in positive cultures. This enables new research opportunities to improve outcomes of early PJIs in THAs and TKAs in the Netherlands. In this population-based registry study, we will describe the microorganisms that cause early PJIs in THAs and TKAs, stratified by patient, prosthesis and procedure characteristics. Furthermore, revision rates and re-revision rates as well as mortality rates after a PJI will be examined. We will reuse a matched dataset between the LROI and PREZIES, in which all primary THAs and TKAs registered in the LROI between 2012-2018 were case-level matched to all primary THAs and TKAs performed between 2012-2018 in consenting hospitals in the PREZIES database.

Approval date: May 2023