

# Summary of research proposal LROI



## **Title:**

Early periprosthetic joint infections in the Dutch National Arthroplasty Registry (LROI): validation by comparison with a detailed regional periprosthetic joint infection registry to improve data quality.

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## **Abstract:**

Periprosthetic Joint Infection (PJI) is a very serious complication after joint replacement surgery. Patients can become very ill, additional surgery and usage of long-term antibiotic medication is often needed. Worldwide, PJI occur more often and treatment is getting more difficult, since bacteria develop resistance to antibiotics. PJI research leans heavily on large databases, since numbers per hospital often are too small to be meaningful. Therefore, accurate documentation of infections in our National Registry (“Landelijk Register Orthopedische Implantaten” LROI) is important. Earlier research showed that PJI registration in other registries is incomplete (approximately 40% missing cases) due to several reasons. Most importantly, National Registries are not designed to register infections. Furthermore, it is difficult to correctly diagnose PJI and not all (surgical) treatments are mandatory to register.

In the South-East of the Netherlands, 11 hospitals initiated a project to enhance diagnosis and treatment of early PJI. To measure if this would lead to improved outcomes of PJI treatment, a local registry was started, designed to collect (suspected) infections. In the current project, we will use this regional registry as a control database to study completeness and accuracy of PJI registration in the LROI. If there is an under-registration of early infections in the LROI, this project will result in suggestions on how to improve the registration of PJI. This will allow future LROI-based research on infections after joint replacement surgery to be highly valid and meaningful, improving future orthopaedic quality of care for PJI patients in the Netherlands.

## **Approval date**

December 2018