



Stakeholder Access to Real-time PROMs Data for Joint Replacement

What is the challenge?

The Australian Orthopaedic Association National Joint Replacement Registry (AOANJRR) is an initiative of the Australian Orthopaedic Association. Joint replacement is a common but major surgical procedure that is highly effective in eliminating joint pain, correcting deformity and/or restoring mobility. The rate of such surgery is increasing in Australia and more than 1 million hips or knees have been replaced since 1999. The Registry reviews outcomes from data on patient characteristics, prosthesis characteristics, procedure type and surgical technique.

This Registry was established in 1999 and became fully national in 2002; it aims to improve the quality of care for people receiving joint replacement surgery. Information about revision surgery (re-operation), reasons for revision and, where relevant, death are used to identify best practice for prostheses choice, surgical technique and patient selection. Informing relevant stakeholders, including surgeons, has significantly reduced post-operative complications and subsequent revision surgery. Each avoided revision leads to preserved quality of life and reduced costs. It is increasingly apparent that, to gain further improvement in joint replacement surgery, more comprehensive assessments are needed, using outcomes beyond clinical and process measures.

About this research translation project

Patient Reported Outcome Measures (PROMs) capture patients' perspectives of the surgical outcomes, including longer term functionality, pain and whether their expectations were met by the surgery. The Registry is currently testing the feasibility of collecting PROMs from all joint replacement patients nationally. A key challenge is not only collecting the data but making it available to stakeholders such as surgeons and hospitals where it can impact clinical practice. The grant obtained through the Medical Research Future Fund (MRFF) will help the Registry develop the infrastructure necessary to translate data collected through the PROMs project directly to stakeholders via real-time, online dashboards. It will also assist in achieving the overall project aim which is to assess the feasibility of establishing a national system to collect PROMs from all joint replacement patients.

The AOANJRR will provide each stakeholder with access to real-time data, presented through specific, online dashboards allowing stakeholders to review information relevant to them:



- Patients will be able to review their results and how they compare to the national average.
- Surgeons will be able to review the results of their patient cohort with comparison to the national average.
- Hospital users will be able to see how their hospital or group of hospitals performs against the national average.
- Project sponsors (health insurers, state governments, hospital owners) will be able to review aggregated data which will provide an understanding of variations in patient selection and outcomes following specific procedures.

What was the impact?

Patients, surgeons, hospitals, state health departments and other project funders now have access to online dashboards displaying patient reported outcome data. Surgeons are able to review pre and post-operative patient responses in real time which can assist them in decision making around patient pre and post-operative care, evaluate treatment effectiveness and variations in health outcomes. Surgeons can also review how their patient cohort compares pre-operatively to national results.

Patients can review how their pre-operative responses compare to the national averages as well as other patients within the same age group. This provides them with some information around how their pain and level of ability to complete daily tasks compares to other people due to undergo the same operation. The AOANJRR is working on deploying the post-operative comparative graphs in March 2019 which will allow patients to track their improvement pre to post-operatively and how that compares to national averages.

Project contact details

Australian Orthopaedic Association National Joint Replacement Registry

Grace O'Donohue
E godonohue@aoanjrr.org.au
P (08) 8128 4682

This project received one-year funding from the Medical Research Future Fund Rapid Applied Research Translation Impact Grant Scheme to be undertaken in 2018.

Published March 2019