

VALUE-BASED HEALTHCARE IN ORTHROPEADIC SURGERY: USING OUTCOME DATA TO IMPROVE DECISION-MAKING IN THE CLINIC

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BACKGROUND

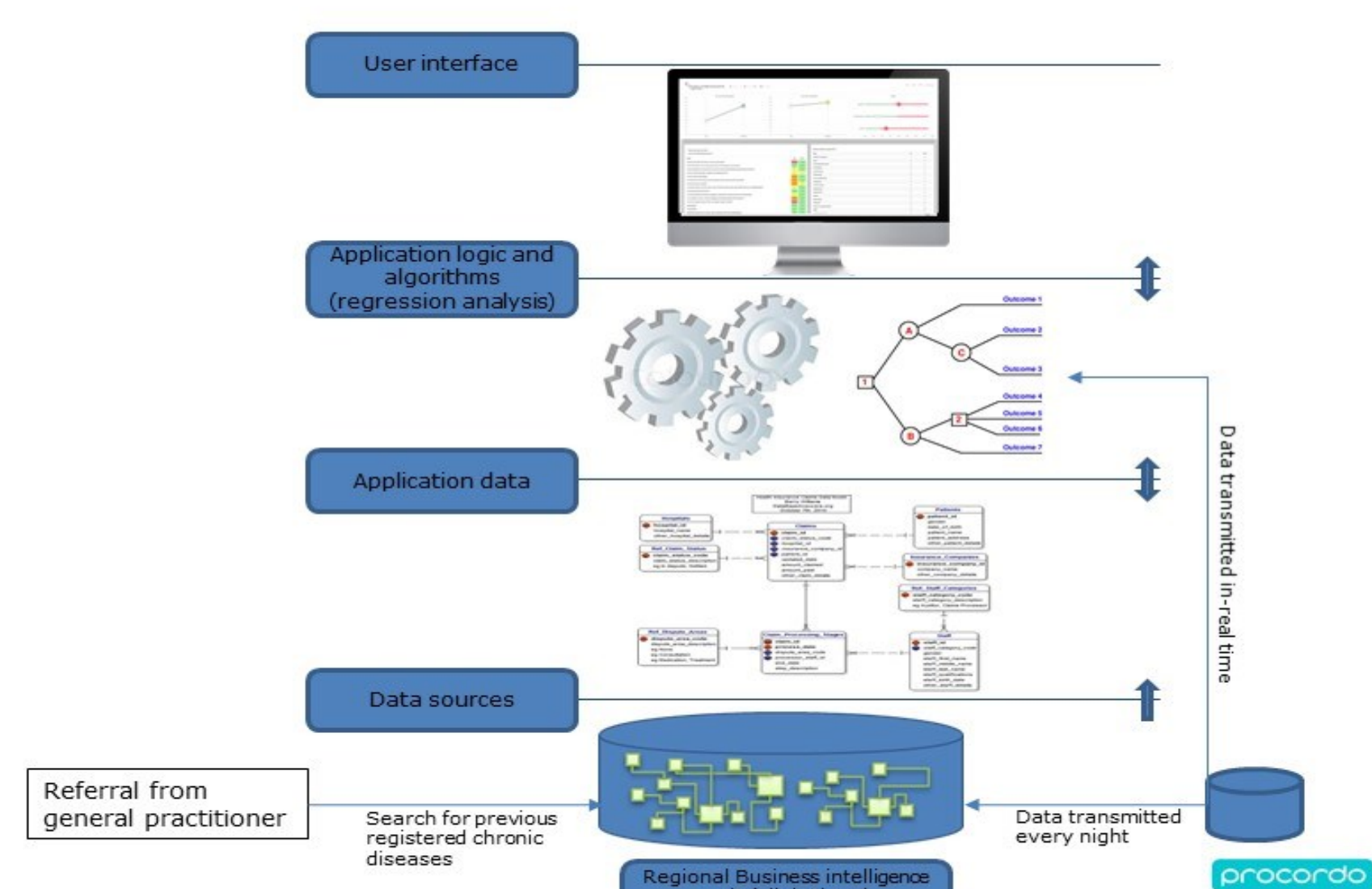
At the beginning of 2017 a national group consisting of physicians, patients, patients associations and health economists gathered to determine the true outcomes for the cycle of care for patients receiving a total hip and knee replacement. Aalborg University Hospital was chosen to demonstrate how to use outcomes in the cycle of care.

Outcomes	Measurement	Points in time after operation
Quality of Life	EQ-5D-3L	12 and 24 months
Physical Function	OHS/OKS	12 and 24 months
Work status	Patient question; job status and sick days due to medical condition	12 and 24 months
Patient Goals	Text and score NRS scale	12 and 24 months
Reoperation or revision	ICD-10 diagnosis	24 months
Readmission	Acute readmission with Length of stay more than 24 hours.	30 days

METHOD

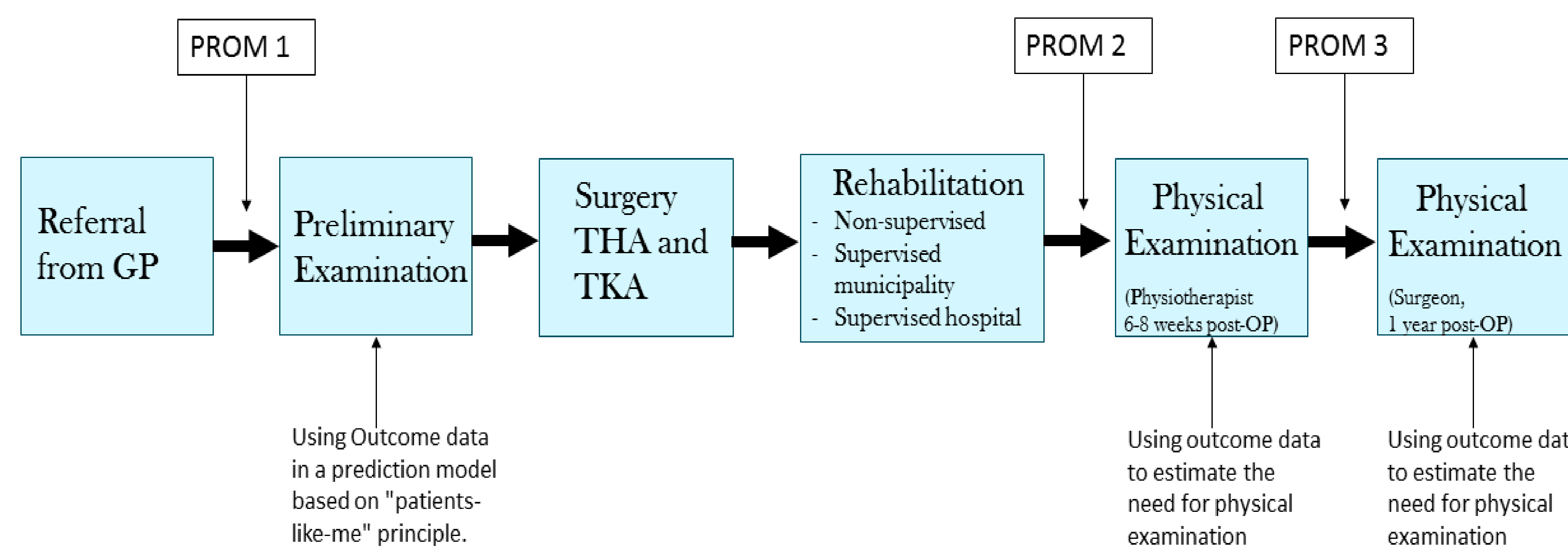
In 2018 regression analysis were conducted based on historical data from 2016 to determine relevant risk factors. When patient answers the PROM 1 questionnaire, data are merged with the information on the risk profile from other databases, and the system predicts the expected results for the patient. One year after surgery the patient answers the PROM 3 questionnaire. If the improvement of the function is not ≥ 14 points, the patient will receive a call from the clinic to determine if the patient should receive a physical examination.

Data integration between systems



Using **patient-centered outcome data** in the cycle of care for total hip and knee replacements **Improves shared decision-making** in the clinic and **optimize the resource use** in the cycle of care.

How to Use Outcome Data in The Cycle of Care for THA and TKA



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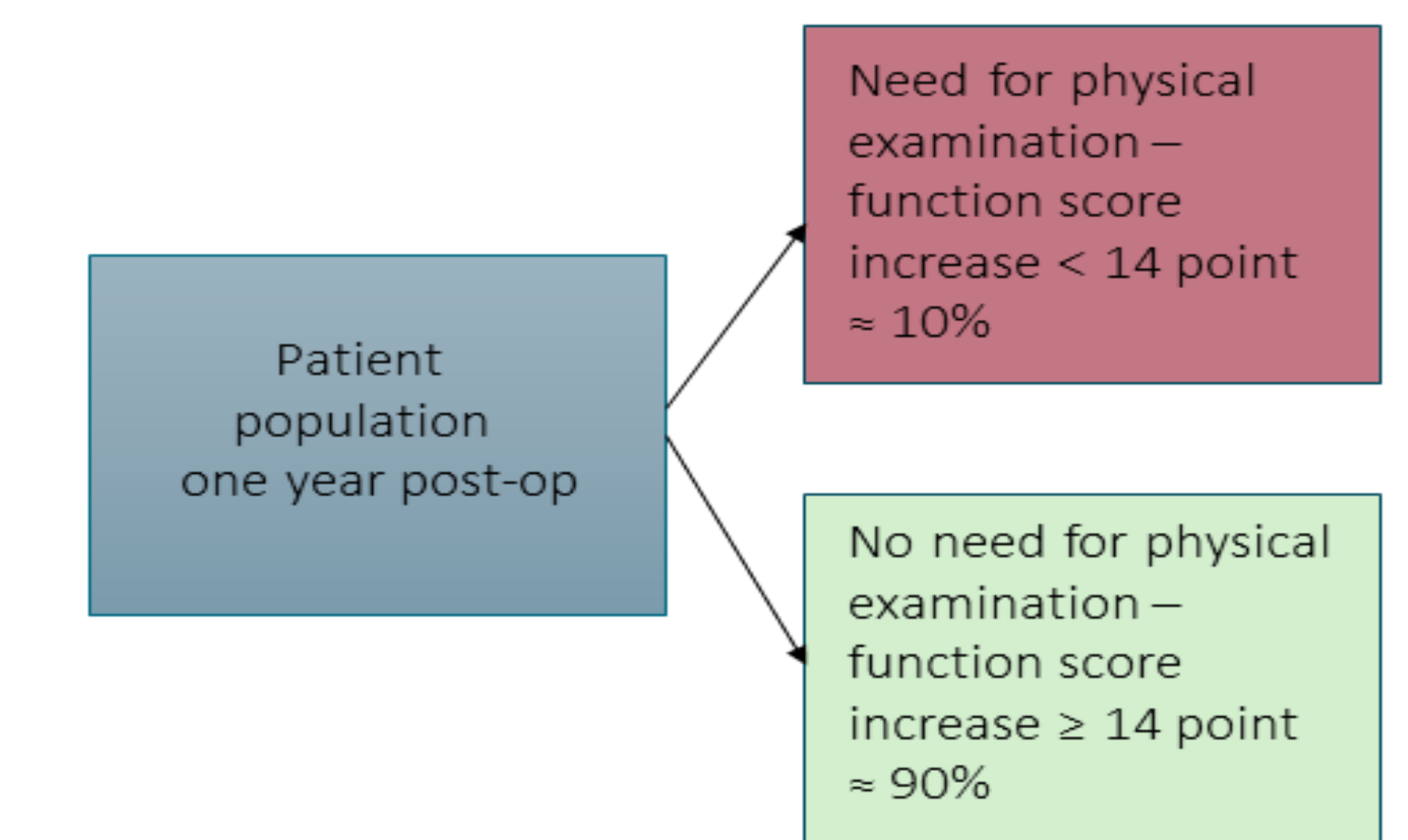
RESULTS

Both physicians and patients gained a better understanding of the expected results after surgery. Patients not introduced to the prediction in the consult later expressed a preference toward using prediction as a visual tool to align expectations.

The Prediction model



Examination one year post-OP



FUTURE WORK

The next step is to use the PROM 2 questionnaire in the physiotherapy examination is the next step. A study estimates that PROMs can decrease follow-up visits by 80% of all hip replacements and 25% of all knee replacement.

The collected outcomes can also be used to evaluate rehabilitation at the municipality. Aalborg University Hospital are now collaborating with the Municipality of Aalborg to investigate how the collected outcomes can be used in the cycle of care across sectors.

