

LEVERAGING REGISTRY DATA TO IMPROVE PATIENT-CLINICIAN COMMUNICATION ABOUT TOTAL HIP ARTHROPLASTY: THE CASE OF "PATIENTS LIKE ME" INFORMATION TOOL

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Objective: Arthroplasty registries are an invaluable source of knowledge about benefits and risks of operations, but they are rarely used to facilitate communication between patients and surgeons and to support decision making. The aim of this work was to develop an information tool based on registry data that makes the experience of previous patients with total hip arthroplasty (THA) meaningful and specific to prospective patients and their surgeons.

Material and Methods: "Patients like me" is a tool built on the knowledge gathered from the Geneva Arthroplasty Registry, about patients undergoing THA since 1996. A sample of patients was surveyed about benefits and harms of living with an operated hip. Fifteen outcomes of interest were identified and grouped into five main domains: pain relief, activity improvement, complication, and risk of subsequent surgeries. Classification algorithms were developed using Conditional Inference Tree (CIT) analysis to identify trajectories of relevant outcomes and patients' clusters at one, five and ten years postoperatively. An information leaflet with infographics and a digital visualisation tool were produced.

Results: 6836 operations were included in the analysis and a total of forty-three CITs were generated. The type and number of predictors changed markedly for each outcome across the three time points. For example, for the outcome measuring patients' ability to put on socks, whilst patient clusters at one year were generated based on preoperative self-rated health (SRH), WOMAC function score, body-mass index, and the number of comorbidities, by year ten only SRH and SF12 physical interference were significant predictors. Outcomes profiles varied by clusters: 79.4% of patients with good to excellent SRH and less than moderate night pain before THA reported no night pain one year after the operation, whilst among those with fair/poor SRH night pain was found in 49.8%.

Conclusion: "Patients like me" uses a novel approach to making registry data accessible, understandable, and useful to those undergoing THA. The tool has received positive feedback from both patients and surgeons.

Acknowledgments: This project was funded by the Fondation privée des HUG. We would like to thank the graphic designer M. Uwe Otte, Registry patients, surgeons, and staff.