

TopSurgeons

The influence of human and organizational factors on surgeons performance

Coordinator



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Total Budget



1.50 M€

Hospices Civils de Lyon
Budget

539 606.25€



Understanding the influence of human and organizational factors on surgeons' performance to enhance patient outcomes: experimental evaluation of a customized coaching program.

The TopSurgeons project includes the University Claude Bernard, Lyon 1 (UCBL), and the Hospices Civils de Lyon (HCL) as a linked third party. This project aims to develop solutions to optimize physical and mental condition of surgeons during operation and to allow a high-quality surgery. Inspired from previous experiences in the aeronautic and sport arena to improve pilots and athletes performance, this approach will take place in real time at the point of care in close collaboration with front-line personnel.

This surgeon-centred outcome research pursues three successive goals: Identifying the key determinants related to surgeon's personal condition and operating room organization influencing his/her performance in terms of patient safety and care efficiency; developing a customized coaching program for surgeons based on the human and contextual factors previously discovered; implementing and measuring the impact of this program on surgical outcomes of a randomized group of surgeons against a control group of non-exposed surgeons.

Pre-intervention period will first serve as an observational phase to collect a large set of data. Routinely collected data in the hospital information system, connected sensors wore by surgeons, and various questionnaires will be used. A particular attention will be paid to quantify the influence of several factors that may affect how the surgeon operates every day. Solutions to control these factors and achieve optimal outcomes will then be experimentally tested to establish evidence-based standards of surgical practice.

Timeline of the project

