

Summary of research proposal LROI



Title:

Two year **f**ollow-up after **H**emiarthroplast**Y** (TROPHY) in a multicenter RCT and Natural Experiment compared to National registry.

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Abstract:

The direct lateral approach (DLA) and the posterolateral approach (PLA) are the two most used surgical techniques used for hemiarthroplasty. The APOLLO trial was conducted to compare DLA and PLA in a Randomized Controlled Trial (RCT) setting. Randomization is considered important, because it strengthens the study's internal validity, reduces bias, and allows for reliable findings.

In addition to the RCT, a Natural Experiment (NE) was conducted in which pseudorandomization, driven by the preferences of the orthopaedic surgeons, determined the surgical approach. In this way, more patients were willing to participate in the APOLLO trial, enhancing the database's overall robustness.

The LROI database is a National registry and compiles data from routine clinical practice and real healthcare settings, outside the controlled conditions of a clinical trial. In the case of the APOLLO trial, registry data allows us to evaluate the effectiveness and safety of both surgical approaches (PLA and DLA) on a broader scale and over an extended period. This evaluation includes patients who may not meet the trial's inclusion criteria, providing a comprehensive understanding of how these surgical techniques perform in real-world clinical settings.

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