## Summary of research proposal LROI

## Title:

Trend of hip and knee replacements during the COVID-19 lock-down. Which operations did go ahead and where did these operations take place?



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## Abstract:

Due to the COVID-19 outbreak in March 2020, elective surgeries performed in Dutch hospitals were reduced. For orthopaedics, the reduction was even more drastic. Nearly all surgeries for total hip and knee arthroplasties were cancelled in this first COVID-19 period with a possible huge impact on patients with osteoarthritis. These patients have already gone through a path of physiotherapy and lifestyle changes before they are eligible for hip or knee arthroplasty surgery. Postponement of these elective surgeries will result in longer waiting times. Furthermore, there are studies available who suggest that delay of this type of surgery will result is a less optimal outcome after the arthroplasty surgery and that this effect will be permanently. However, some hip and knee arthroplasty surgeries are really urgent surgeries, such as surgery after hip fracture and revision surgery of the hip or knee with a mechanically failed implant or low grade septic loosening. For these surgeries the delay is even more disastrous. Unfortunately also this kind of surgery was postponed extensively during the first COVID-19 outbreak in spring 2020. In October 2020, a second COVID-19 wave results again in a decreased proportion of elective surgeries in Dutch hospitals. At this moment it remains unclear what the effect will be on orthopaedic surgery.

This study will give an overview of the impact of COVID-19 on arthroplasties for all joints with a focus on total hip and knee surgery. We want to examine where these surgeries were performed and describe differences in geographic regions and type of hospital. We will assess the possible effect of the restrictions due to COVID-19 during the pandemic on the amount of arthroplasties for hip fractures. Finally, this study will focus on the differences between the first and second wave of COVID-19 in 2020.

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