

## **Is Magnetic Resonance Imaging Overutilized Among Patients Undergoing Total Knee Arthroplasty?**

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**INTRODUCTION:** With increasing healthcare costs, it is important to quantify the number of TKA patients that have MRIs that are not considered clinically necessary, a source of overutilization of healthcare resources. The goal is to determine the number of unnecessary pre-consult MRIs for patients who underwent a TKA.

**METHODS:** In order to determine the number of unnecessary pre-consult MRIs, all patients who underwent a primary total knee arthroplasty between February 2021 and January 2022 were identified from our institution's IRB approved registry. Chart and imaging review were conducted, and pre-consult MRIs were evaluated.

**RESULTS:** Of 869 total knee arthroplasties, 177 (20.4%) presented with a pre-consultation MRI. One hundred twelve met our inclusion criteria. Of the 112 MRI scans, 18 (20.7%) were done without radiographic imaging, and 69 (79.3%) MRI scans were completed after radiographically evident moderate to severe arthritis. Overall, 87 (10.0%) MRIs were deemed clinically unnecessary.

**DISCUSSION AND CONCLUSION:** Referring physicians are overutilizing MRIs prior to consultation with an orthopaedic surgeon. Of the patients who had unnecessary MRIs based on the conditions stipulated in the methods section, \$20,706 cost could be saved. Extrapolating that number to the scale of patients affected by arthritis each year and over the average number of years of management before surgical intervention is potentially a staggering amount of money, leading to potential harm and increased healthcare costs. Evidence-based guidelines must be put into place to optimize healthcare utilization.