

<a>Insurance Denial is Common in Image-Guided, Robotic-Assisted Total Joint Arthroplasty

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INTRODUCTION:

Image-guided robotic-assisted total joint arthroplasty relies on preoperative CT scans for precise surgical planning, yet insurance denials pose a significant barrier to access. To our knowledge there is currently no published data on the rate of insurance denials that occur for preoperative CT-scans in this patient population.

METHODS:

A retrospective review of 1,464 patients between 2018 and 2024 undergoing preoperative CT scans for robotic-assisted total joint arthroplasty was conducted. Data collection included insurance type (HMO, PPO, POS, EPO, Medicare, Medicare Advantage, Worker's Compensation, Veteran Affairs, and self pay), age, sex, procedure, denial status, and approval status.

RESULTS: Among the 1,464 patients, the overall denial rate for preoperative CT scans was 19.1%. Single carrier private insurance plans (HMO, PPO, EPO, POS) had the highest denial rate at 69.4%, followed by Medicare Advantage (24.9%), Veterans Affairs (15.4%), and Workers' Compensation (10.8%). Medicare had the highest approval rate at 95.1%. Denied claims were younger patients with an average age of 64.5 years compared to 68.2 years. Procedure type and sex were similar between denied and approved claims.

DISCUSSION AND CONCLUSION:

Insurance denials for preoperative CT scans in robotic-assisted total joint arthroplasty create barriers to care. This study provides insight into denial patterns helping orthopedic surgeons optimize documentation to improve approval rates. Better understanding these trends may also aid in preoperative planning, reducing surgical delays and improved patient satisfaction.