

Effect of Facility on the Operative Costs of Total Ankle Arthroplasty

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Introduction/Purpose: Cost containment is increasingly important in health care. Currently, Medicare does not reimburse for total ankle replacement (TAR) in the outpatient, ambulatory setting. Therefore, TAR in Medicare patients must be performed in the inpatient setting. The purpose of this study was to investigate if ambulatory surgery centers (ASC) can deliver lower-cost care and to identify sources of those cost savings in total ankle replacement (TAR). We hypothesize that total ankle arthroplasties cost significantly less than when performed in an inpatient setting.

Methods: We performed a cost identification analysis of primary TAR at a single academic medical center. Multiple costs and time measures were taken from 574 consecutive patients over 4 years at either an inpatient facility or ASC. The relationships between total cost and operative time and multiple variables, including patient age, gender, comorbidities, type of implant used, and concurrent procedures performed were examined, using multivariate analysis and regression modeling to identify cost drivers or explanatory variables.

Results: The mean operative cost over 4 years was significantly greater at the inpatient facility (\$50,460) than at the outpatient facility (\$46,283) ($p < 0.0001$, CI \$3,752-\$4,685). Significant cost drivers of this difference were in-patient (\$1,759), physical/occupational therapy (\$346), pharmacy (\$233), and operating room costs (\$2,752). If we were to perform all total ankle replacements in the four-year period at the ASC, the hospital system would have saved \$1,445,242.00.

Conclusion: The most significant predictor of cost was facility type. This study supports the use of ASC facilities to achieve efficient resource utilization in the operative treatment of total ankle arthroplasties. We also identified several specific costs and time measurements that can serve as potential targets to improve utilization.

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