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Jonah Stein

Thomas Jefferson University, jonah.stein@jefferson.edu

Michael Yayac, MD

Thomas Jefferson University, michael.yayac@jefferson.edu

Gregory K. Deirmengian, MD

Thomas Jefferson University, gregory.deirmengian@jefferson.edu


Javad Parvizi, MD

Thomas Jefferson University, Javad.Parvizi@jefferson.edu

P. Maxwell Courtney, MD

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Thomas Jefferson University, paul.courtney@jefferson.edu

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Conversion Total Knee Arthroplasty Needs Its Own Diagnosis Related Group Facility Reimbursement Code

Jonah Stein BS, Michael Yayac MD*, Gregory K. Deirmengian MD, Javad Parvizi MD, P. Maxwell Courtney MD

Introduction: Conversion from a prior surgery to a total knee arthroplasty (TKA) is a more technically difficult procedure than primary TKA and is associated with worse short-term outcomes and increased complication and readmission rates, despite being undifferentiated under the current bundled payment model. The aim of this study was to determine differences in facility costs between primary TKA and conversion TKA, which we hypothesize are significant, to ensure providers are not penalized for treatment and high-risk patients have the same access to care.

Methods: We retrospectively reviewed a consecutive series of patients undergoing primary TKA at two hospitals within Rothman Orthopaedic Institute from 2015-2017, comparing itemized facility costs between primary and conversion TKA patients. Secondary endpoints included length of stay, discharge disposition, and additional implants used. A multivariate regression analysis was performed to identify independent risk factors for increased facility costs, the need for additional implants, length of stay, and discharge disposition.

Results: Of 2447 primary TKA procedures, 678 (27.7%) underwent conversion to TKA, which was associated with greater implant costs (\$3424.25 vs. 3272.29, $P < 0.0001$), preoperative personnel costs (\$1269.89 vs. \$1217.72, $p < 0.0001$), and total costs (\$6859.16 vs. \$6703.55, $p = 0.0015$). Presence of prior surgical hardware was a risk factor for increased implant costs (\$501.1 increase, $p = 0.0024$) and total cost (\$501.4 increase, $p = 0.0024$).

Discussion: Conversion TKA is associated with significantly greater facility costs than primary TKA, thus confirming our hypothesis, and should be adjusted for in alternative payment models to ensure these patients do not encounter difficulties in accessing quality orthopaedic care.