

1-2020

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

Jonah Stein

Thomas Jefferson University, [jonah.stein@jefferson.edu](mailto:jonah.stein@jefferson.edu)

Michael Yayac, MD

Thomas Jefferson University, [michael.yayac@jefferson.edu](mailto:michael.yayac@jefferson.edu)

Gregory K. Deirmengian, MD

Thomas Jefferson University, [gregory.deirmengian@jefferson.edu](mailto:gregory.deirmengian@jefferson.edu)


Javad Parvizi, MD

Thomas Jefferson University, [Javad.Parvizi@jefferson.edu](mailto:Javad.Parvizi@jefferson.edu)

P. Maxwell Courtney, MD

Follow this and additional works at: [https://jdc.jefferson.edu/si\\_ctr\\_2022\\_phase1](https://jdc.jefferson.edu/si_ctr_2022_phase1)

Thomas Jefferson University, [paul.courtney@jefferson.edu](mailto:paul.courtney@jefferson.edu)

 Part of the [Orthopedics Commons](#), [Surgery Commons](#), and the [Translational Medical Research Commons](#)

[Let us know how access to this document benefits you](#)

### Recommended Citation

Stein, Jonah; Yayac, MD, Michael; Deirmengian, MD, Gregory K.; Parvizi, MD, Javad; and Courtney, MD, P. Maxwell, "Conversion Total Knee Arthroplasty Needs Its Own Diagnosis Related Group Facility Reimbursement Code" (2020). *Phase 1*. Paper 13.

[https://jdc.jefferson.edu/si\\_ctr\\_2022\\_phase1/13](https://jdc.jefferson.edu/si_ctr_2022_phase1/13)

This Article is brought to you for free and open access by the Jefferson Digital Commons. The Jefferson Digital Commons is a service of Thomas Jefferson University's [Center for Teaching and Learning \(CTL\)](#). The Commons is a showcase for Jefferson books and journals, peer-reviewed scholarly publications, unique historical collections from the University archives, and teaching tools. The Jefferson Digital Commons allows researchers and interested readers anywhere in the world to learn about and keep up to date with Jefferson scholarship. This article has been accepted for inclusion in Phase 1 by an authorized administrator of the Jefferson Digital Commons. For more information, please contact: [JeffersonDigitalCommons@jefferson.edu](mailto:JeffersonDigitalCommons@jefferson.edu).

**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.