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The Clinical and Financial Consequences of the Centers for Medicare and Medicaid Services' Two-Midnight Rule in Total Joint Arthroplasty

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Introduction: To lessen the financial burden of total joint arthroplasty (TJA) and encourage shorter hospital stays, the Centers for Medicare and Medicaid Services (CMS) recently removed total knee arthroplasty (TKA) from the inpatient-only (IPO) list. This policy change now requires providers and institutions to apply the two-midnight rule (TMR) to short-stay (one-midnight) inpatient hospitalizations (SSIH).

Methods: The National Inpatient Sample (NIS) from 2012 through 2016 was used to analyze trends in length of stay (LOS) following elective TJA. Inflation-adjusted hospital costs for Medicare TJA's performed in 2016 were determined for five LOS groups (LOS=0, 1, 2, 3, >3). Utilizing publicly available policy documentation, published median Medicare payments, and NIS hospital costs, we analyzed the application of the TMR to SSIH's and compared the results to the previous policy environment. Specifically, we modelled three scenarios for all 2016 Medicare SSIH's: (1) all patients kept an extra midnight to satisfy the two-midnight rule, (2) all patients discharged as an outpatient, and (3) all patients discharged as an inpatient.

Results: The overall percentage of Medicare SSIH's increased significantly from 2.7% in 2012 to 17.8% in 2016 ($p<0.0001$). Scenario 1 resulted in no change in out-of-pocket (OOP) costs to patients, no change in CMS payments, and hospital losses of $117.0 million. Scenario 2 resulted in no change in patient OOP costs, reduction in payments from CMS of $181.8 million, and hospital losses of $357.3 million. Scenario 3 resulted in no change in patient OOP costs, no change in CMS payments, and an estimated $1.71 billion of SSIH charges at risk to hospitals for audit.

Conclusions: The results of this analysis reveal the conflict between LOS trends following TJA and the imposition of the TMR. In the absence of a change in current policy, it is imperative that CMS provide stakeholders with unambiguous criteria for short-stay inpatient hospitalizations.