

The Effect of a Financial Disincentive in Medicare's Comprehensive Care for Joint Replacement Program

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INTRODUCTION:

The Centers for Medicare and Medicaid Services (CMS) Comprehensive Care for Joint Replacement Model (CJR) provides a financial incentive/disincentive for participating hospitals to reduce cost without harming quality. CJR hospitals receive a reconciliation payment if their costs are less than a contracted target price, while they need to pay the difference back to Medicare if their costs exceed the target price. CJR includes a stop-loss/gain feature that caps the amount that a hospital can gain or lose to provide financial protections. During the first two performance years (2016-2017), stop-loss/gain was 5% of the aggregated quality-adjusted target price, while there was no repayment required (without downside risk) in the first year. Using this information, we compared pre-versus-post 90-day episode-of-care cost and quality of care between CJR hospitals affected by the implementation of a stop-loss provision (costs exceed the target price) and those unaffected (costs below the target price) to examine the impact of financial disincentive in the form of repayment.

METHODS:

We included Medicare fee-for-service beneficiaries over age 65 undergoing LEJR (n=75,269). A total of 688 CJR hospitals were included in the analysis. The mean age of the cohort was 74.0 years, with 61.9% female and 90.2% white. We performed a retrospective analysis of Medicare beneficiaries undergoing lower extremity joint replacement (LEJR) using Medicare claims from 2016 (pre-stop-loss) to 2017 (post-stop-loss). Among hospitals in the 67 metropolitan statistical areas (MSAs) randomly selected to participate in CJR, we employed difference-in-differences (DID) to compare 90-day episode-of-care cost and quality as measured by readmission, mortality, and complication events between CJR hospitals that required a repayment in 2017 and those that did not. All regressions included patient, hospital, and MSA level covariates to account for time-varying nature of data, and all standard errors were clustered by MSAs.

RESULTS:

After implementation of a stop-loss provision, there were greater reductions in 90-day episode-of-care costs among CJR hospitals that exceeded the target price. We estimate a -\$2,371 (95%CI: -\$3,399, -\$1,342) decrease in the mean 90-day episode-of-care costs relative to non-affected CJR hospitals. The differential reduction was largely driven by a 7.3% (p<0.001) decline in 90-day inpatient costs of the initial procedure. We also found that CJR hospitals affected by a stop-loss provision significantly increased claim utilization day count (2.1%; p<0.01), 90-day mortality (7.5%; p<0.01), and 90-day inpatient complication rate (4.8%; p<0.05). While we found no significant changes in readmission and hospital procedure volume, we estimated that the effect size is positively associated with the amount that hospitals need to repay.

DISCUSSION AND CONCLUSION: The required repayment for CJR hospitals that exceeded the target price was associated with a modest reduction in the mean episode-of-care costs, primarily concentrated in Inpatient costs. However, the cost reductions were partly associated with a greater risk of harms to quality of care.