

# <a>Lessons Learned from Comprehensive Care for Joint Replacement at a Tertiary Academic Center: The Good, the Bad, and the Ugly</a>

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## INTRODUCTION:

Our institution participated in the Comprehensive Care for Joint Replacement (CJR) model from 2016 to 2020. Here we review lessons learned from a total joint arthroplasty (TJA) care redesign at a tertiary academic center amid changing 1) CJR rules, 2) inpatient only rules, and 3) outpatient trends.

## METHODS:

Quality, financial, and patient demographic data from the years prior to and during participation in CJR were obtained from a combination of institutional and Medicare provided, reconciled CJR performance data.

## RESULTS:

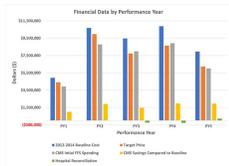
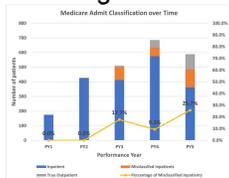
During CJR participation, there was significant improvement in quality metrics and efficiency of care: decreased LOS (3.94 to 2.17 days,  $p < 0.001$ ), increased home discharge rate (63.64% to 80.92%,  $p < 0.001$ ), decreased readmission rate (13.99% to 6.53%,  $p = 0.06$ ), and decreased complication rate (4.90% to 1.02%,  $p = 0.02$ ).

Despite an increase in true outpatients as well as new challenges that arose from changing inpatient-only rules, which led voluntary misclassification of some inpatients as outpatient due to unclear outpatient classification rules (effectively removing the highest performing patients from CJR), our institution's Composite Quality Score increased from 4.4 to 17.6 (top quintile).

Over the five-year period, CMS saved an estimated \$8,285,536 on 1,486 CJR cases, \$7,488,206 on 1,343 non-CJR cases, and \$445,536 from the voluntary misclassification of 272 inpatients (25.7% of all Medicare patients in final year)—a total savings of \$16,219,278 over 5 years. Despite significant physician time and effort leading to marked improvements in efficiency, quality, and significant cost savings for CMS, CJR participation resulted in a net penalty of \$304,456 to our institution with no physician gainsharing.

## DISCUSSION AND CONCLUSION:

The benefits of CJR were tempered by the malalignment of incentives among payer, hospital, and physician as well as a lack of transparency. Future payment models will need to be refined and built upon the lessons learned from CJR, including the successes and challenges.



Year	Quality Score	LOS (days)	Home Discharge Rate (%)	Readmission Rate (%)	Complication Rate (%)
2016	4.4	3.94	63.64	13.99	4.90
2017	5.2	3.50	68.50	12.50	4.50
2018	6.0	3.00	73.00	11.00	4.00
2019	7.0	2.50	78.00	10.00	3.50
2020	17.6	2.17	80.92	6.53	1.02

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