

CMS Perspective:

Comprehensive Care for Joint Replacement (CJR)

Third Annual Evaluation Report and Next Steps for the Model

November 2020

For information on the model and to download the independent evaluation report discussed in this document, please visit

<https://innovation.cms.gov/innovation-models/cjr>



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Comprehensive Care for Joint Replacement (CJR) Third Annual Evaluation Report

Hip and knee replacements are the most common inpatient surgery for Medicare beneficiaries and can require lengthy recovery and rehabilitation periods. However, quality of care and cost for hip and knee replacement surgeries (also called lower extremity joint replacements or LEJR) vary greatly among providers. To address this variability, the CMS Innovation Center established the Comprehensive Care for Joint Replacement (CJR) model under the authority of section 1115A of the Social Security Act through notice-and-comment rulemaking in the fall of 2015. The mandatory CJR model began its first performance year on April 1, 2016 and is currently in its fifth performance year. This model tests whether bundled payment and quality measurement for an episode of care associated with hip and knee replacements reduces Medicare expenditures while preserving or enhancing care quality. The model's design encourages hospitals, physicians, and post-acute care providers to work together to improve the quality and coordination of care from the initial hospitalization through 90 days post-discharge. CJR episodes initiate with inpatient hospital admissions for hip and knee replacements (DRG 470 or 469) and end 90 days post-discharge in order to cover the complete period of recovery for beneficiaries. Participant hospitals get quality-adjusted target prices that incorporate a blend of historical hospital-specific spending and regional spending for inpatient hip and knee replacement episodes, with the regional component of the blend increasing over time.

The third annual CJR model evaluation report presents findings from the first three performance years of the CJR model and includes episodes initiated on or after April 1, 2016 and which ended by December 31, 2018. At the start of performance year 3, CMS reduced the number of mandatory Metropolitan Statistical Areas (MSAs) from the original randomly selected 67 MSAs to the 34 MSAs with the highest average historical payments. The third annual report focuses on the 378 mandatory CJR hospitals in these 34 MSAs that were required to participate through the entire course of the model. Voluntary hospitals will be evaluated in future reports. Even with the model's more concentrated focus, the variation in hospital characteristics and circumstances continues to ensure a broad test of the episode-based payment approach.

The CJR model continues to demonstrate promising results.

- In the first three performance years, mandatory CJR hospitals achieved a statistically significant reduction in average episode payments due to reductions in institutional post-acute care services.
- After accounting for reconciliation payments, the payment reductions made by mandatory CJR hospitals resulted in net savings during the first three performance years.
- Despite the reduction in institutional PAC services, measures of quality of care are improving or being maintained.

Medicare began coverage of outpatient total knee arthroplasty (TKA) in year three of the model, which did not qualify them as CJR episodes and therefore made them ineligible for reconciliation payments. The evaluation discovered that mandatory CJR hospitals shifted a smaller proportion of TKAs to the outpatient setting than control group hospitals (19% vs 29%). Because the costs associated with outpatient procedures are less than inpatient procedures, there was concern that only looking at cases that began in an inpatient setting could possibly overestimate the impact of the CJR model due to the 10% difference between mandatory CJR hospitals and control group hospitals. In order to address this concern, the evaluation investigated the differential response to this policy on the CJR model outcomes by separately examining the financial impacts observed for inpatient-only episodes as well as all inpatient and outpatient LEJR episodes of care.

For mandatory CJR hospitals, the CJR model resulted in statistically significant decreases in average episode payments for all LEJR episodes (inpatient and outpatient surgeries) and inpatient-only during the first three performance years. Payments decreased by 4.7% (or \$1,378) more for all LEJR episodes (inpatient and

outpatient surgeries) than for control group episodes. In addition, the payments for inpatient-only episodes decreased by 5.3% (or \$1,540) more than for control group episodes. After accounting for the reconciliation payments, net savings from mandatory CJR hospitals totaled \$61.6 million (or 2% savings from baseline) for all LEJRs and \$76.3 million (or 2.5% savings from baseline) for inpatient-only episodes. It is worth noting that both approaches showed consistent findings for cost, utilization and quality outcomes during the time period examined in this report.

In exploring these findings further, the report found the relative decrease in average episode payments was driven by reductions in the use of institutional post-acute care. Mandatory CJR hospitals discharged relatively fewer patients to both inpatient rehabilitation facilities (IRF) and to skilled nursing facilities (SNF). Also, CJR patients with a SNF stay spent fewer days in a SNF, relative to patients from control group hospitals. There was an increase in CJR patients that were first discharged home with home health agency services; however, this increase did not result in statistically significant higher payments.

Measures of quality of care improved or were maintained under the CJR model. The unplanned readmission rate decreased more for CJR episodes than for control group episodes, representing a 3.1% decrease. For elective LEJR episodes, there was a 7.4% reduction in the complication rate. Emergency department use and mortality remained the same between the CJR and control group hospitals. Patient surveys conducted at roughly 90 days after surgery indicated that CJR and control patients had similar improvements in functional status and pain from before their surgery to after the episode and reported similar satisfaction with recovery and care experiences.

Despite this evaluation's consistent findings for cost, utilization and quality outcomes across the first three years of the CJR model, the possibility of performing LEJR procedures in outpatient settings beginning in the third performance year raises questions as to whether the model can continue to observe net savings in later years. Indeed, declining impacts seen in payment year 3 suggest that not including outpatient procedures in the CJR model may come to reduce the model's ability to achieve net savings. To address these declining impacts, on February 24, 2020, CMS issued a proposed rule in the Federal Register that would change certain aspects of the CJR model, including incorporating outpatient hip and knee replacements into the episode of care definition and adjusting the target price calculation, among other changes ([Federal Register notice](#)). Additionally, the CJR model was originally established to run for five performance years. To allow time to further evaluate the model, the rule proposes to extend the length of the CJR model for an additional three performance years.

On November 6, 2020, CMS issued "Additional Policy and Regulatory Revisions in Response to the COVID-19 Public Health Emergency" hereinafter referred to as the October 2020 Interim Final Rule with Comment Period (IFC). The October 2020 IFC includes the following key technical changes to the Comprehensive Care for Joint Replacement (CJR) model policies:

- Provides an extension of the CJR model's Performance Year (PY) 5 for an additional 6 months, which now ends on September 30, 2021.
- Increases the number of reconciliation periods for PY5 to two (one for the first 12 months of PY5 and one for the remaining 9 months of PY5).
- Includes new MS-DRGs 521 and 522 in the CJR model, as of October 1, 2020.
- Changes the extreme and uncontrollable circumstances policy for COVID-19 to actual episode payments capped at the quality adjusted target price for any episode with actual episode payments that include a claim with a COVID-19 diagnosis code and initiate after the earlier of March 31, 2021 or the last day of the public health emergency period.