



Office tip

The University of Missouri Health Care approach to Comprehensive Care for Joint Replacement

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ABSTRACT

The University of Missouri Health Care is a 5-hospital academic medical center with 595 beds, located in the central United States. Our system was selected for mandatory participation in the Comprehensive Care for Joint Replacement bundled payment model and participated from April 2016 through December 2017. Using an established improvement model, we implemented several key strategies which resulted in improved quality and lower overall costs.

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Introduction

In January 2015, the US Department of Health and Human Services announced its timeline and goals to move not only the Medicare system but also the entire health-care system toward value-based care, with a focus on quality and cost. A goal was set of tying “30% of traditional, or fee-for-service, Medicare payments to quality or value through alternative payment models, such as Accountable Care Organizations (ACOs) or bundled payment arrangements by the end of 2016, and tying 50% of payments to these models by the end of 2018.” [1] Although the Centers for Medicare and Medicaid Services slowed the bundled payment initiative by canceling the Acute Myocardial Infarction, Coronary Artery Bypass Graft, Cardiac Rehabilitation, and Surgical Hip and Femur Fracture Treatment payment models and reduced the number of mandatory metropolitan statistical areas (MSAs) in the Comprehensive Care for Joint Replacement (CJR) program, this by no means signifies the end of bundled payments. In early January 2018, the Centers for Medicare and Medicaid Services announced that the Bundled Payments for Care Improvement Advanced model will begin on October 1, 2018, and consists of 32 clinical episodes, including

major joint replacement of the lower extremity, as seen in the CJR bundle. [2]

In July 2015, the Center for Medicare and Medicaid Innovation proposed the CJR as this nation’s first mandatory bundled payment program. The Center for Medicare and Medicaid Innovation believed that by making the program mandatory, they avoided selection bias and provided a litmus test for the success of the program across a range of provider types and geographic regions. [3] Bundled payments “are a means of aligning stakeholder incentives to work across specialties and continue to optimize operational efficiencies while maintaining quality of care.” [4]

On April 1, 2016, the CJR bundled payment model began. The University of Missouri Health Care was one of 68 MSAs chosen to participate in the mandatory bundle.

Office tip

In order to address necessary improvements to be successful under the CJR bundled payment model, the University of Missouri Health Care medical center addressed need for improvement and then implemented six key strategies to reduce cost and improve quality.

Three big questions required answers before the improvement work could begin:

1. What is (or what should be) the organizational structure for value-based care and, more specifically, bundled payments?
2. What are our current information technology and analytics capabilities, and where do they need to be?

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3. What are the evidence-based guidelines and protocols for standardizing our clinical processes and practices?

Two teams were formed to manage the improvement work, a task force and an implementation team. The task force provided governance over the work, whereas the implementation team consisted of “boots on the ground” directors, managers, and staff who executed the planned interventions.

The following strategies were implemented:

1. **Data and scorecards:** Harnessing the data and developing provider-level scorecards was of the utmost importance. The scorecards provided both an overall and individual provider “picture” of performance, and their in-depth data analysis helped us identify opportunities for improvement. Metrics tracked on the scorecard included length of stay, complications, readmissions, anchor stay discharge disposition, percentage of patients with diabetes, percentage of patients with body mass index > 40, and percentage of patients with a fracture. We garnered from our initial data analysis that reducing discharges to skilled nursing facilities would drastically reduce our episode costs. A monthly review of the scorecards ensured we were making progress on that reduction.
2. **Patient/caregiver engagement:** We recommended that all patients and their caregivers (regardless of payer) attend our joint camp class to learn about expectations across the continuum, from prehabilitation to the day of surgery to postacute care. The joint camp handbook was updated to reflect the new standards of care for hip and knee replacements. We set a monthly attendance goal for the joint camp class of 80% for the CJR patients and met the goal in the summer of 2017.
3. **Preoperative services:** Maximizing the patient’s health before surgery has been shown to help the patient recover faster after the surgery [5]. Our prehabilitation program addresses strength and range of motion, use of mobility aids, home environment and setup, expectations day of surgery and during the hospital stay, therapy after surgery, pain reduction after surgery, rehabilitation after discharging from the hospital, and a focus on discharging home.
4. **Order set standardization:** Standardizing care provided to all CJR patients was very important. Several order sets existed allowing for deviations in care. We created one order set on the preoperative and postoperative sides, with an electronic version going live in the fall 2018. Joint camp, prehabilitation, and discharging home are “prechecked” standardized orders within the order set.
5. **Concurrent coding:** Unlike many other facilities participating in the CJR bundle, we did not hire a care navigator. We felt that due to our volumes and care processes, a care navigator was unnecessary. However, we made sure to identify each CJR beneficiary while inpatient status and confirmed that the new strategies were effective. Coders concurrently coded the CJR patients and sent an email to the manager of value-based care who then reviewed the patient’s chart for deviations from the care plans. If deviations were found, communication was initiated with the inpatient case manager and the surgeon. This strategy was key as it helped establish good lines of communication between team members while working to eliminate variations in care.
6. **Postacute care partner network:** Our newly created partnerships with postacute care providers drive performance-improvement efforts focused on quality and cost along the care continuum.

Monthly meetings occur with key stakeholders from skilled nursing facilities, inpatient rehabilitation facilities, and home health agencies. Each group is working on a large improvement project that will implement best practices and maximize reimbursement.

Discussion

After implementing these strategies, University of Missouri Health Care reported a 14% reduction in readmissions, 20% reduction in total hip arthroplasty/total knee arthroplasty complications, and 26% reduction in discharges to a skilled nursing facility. Taking what we learned from the CJR bundle, we turned our attention to the emergency department and three high utilization diagnoses with potentially avoidable visits. We are currently building electronic care pathways for uncomplicated headaches and migraines, low back pain, and chronic abdominal pain. These care pathways will reduce variations in care, as well as unnecessary testing and medications, and facilitate transitioning the patient into the ambulatory setting for stratification to a primary care physician or a specialist based on the patient’s clinical need. We also continued our improvement work based on the cardiac payment model, again, with a focus on standardizing care across the continuum.

“Leading health-care organizations are coming to recognize that sustaining improvement is essential” [6]. Our sustainment model focuses on standardization of care and quality control to monitor and address defects. We use the Plan-Do-Study-Act Improvement Model and coordinate and document all improvement efforts across the system into one electronic tool called the QI Tracker. The implementation team continues to meet monthly to review scorecards, identify areas for improvement, and develop and implement tests of change. We are confident that we will continue to see improvements by keeping a strong focus on this work.

Summary

After being chosen as 1 of 68 MSAs to participate in the mandatory Comprehensive Joint Replacement Model, University of Missouri Health Care implemented six key strategies to reduce cost and improve quality. We saw reductions in readmissions, complications, and discharges to skilled nursing facilities. We plan to spread this knowledge to projects in the emergency room as well as the cardiac service line.

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