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AAHKS Symposium: The Future is Here - Bundled Payments and ICD-10

Bundled Payments: Our Experience at an Academic Medical Center

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ABSTRACT

Background: The landscape of health care is transitioning from a fee-for-service model to value-based purchasing.
Methods: We developed evidence-based clinical pathways and risk stratification measures to effectively implement the Bundled Payments for Care Improvement model of value-based purchasing.
Results: We decreased patients' length of stay, discharge to inpatient facilities, and cost of an episode of patient care.
Conclusion: The bundled care payment initiative has been successfully implemented for Diagnosis Related Groups 469 and 470, delivering high-quality patient care at a reduced price.

The traditional pay-for-service model of health care delivery in the United States is financially unsustainable. Incentivization of patient volume as the main proponent of profitability has placed emphasis on processing patients rather than providing quality care at the most affordable cost. Going forward, value-based purchasing (VBP) will be implemented to change the focus of how care is paid for. The goal of VBP is to transform Medicare from a passive payer of claims to an active purchaser of care. As an active purchaser, the Centers for Medicare and Medicaid Services (CMS) demands value, not just quantity, for the money that it spends. Thus, health care providers must adapt to accommodate these new standards. To ensure value, we must examine the product, process, and cost of delivery.

The number of total joint arthroplasties continues to grow rapidly as a result of both an aging population and the tremendous success of these operations in reducing pain and restoring function. By 2030, the annual number of total knee arthroplasty (TKA) and total hip arthroplasty (THA) cases in the United States may reach 3.48 million and 527,000 procedures, respectively [1]. Currently, these procedures represent the highest volume of inpatient surgeries for Medicare beneficiaries. Over 400,000 procedures were performed in 2014 alone, totaling an excess of $7 billion in hospitalizations and an aggregate expenditure of $16,500 to $33,000 on average for surgery, hospitalization, and recovery [2]. This average price is subject to considerable regional variability. As a consequence of the increasing financial burden THAs and TKAs present, CMS is restructuring the current payment model to achieve fiscal viability through alternative payment models.

In response to this need, CMS instituted the Bundled Payments for Care Improvement (BPCI) initiative in 2011. BPCI aims to provide "higher quality and more coordinated care at a lower cost to Medicare" [2]. CMS structured 4 models of bundled payments, 3 retrospective and 1 with a prospective payment. Under models 1-3, Medicare and the participating hospital agree on a target payment amount for a defined episode of care as determined from the participants' historical fee-for-service payments from the episode. Gainsharing with surgeons and other practitioners is permitted if savings are realized; however, the patient receives no financial benefits. CMS requires quality measure reporting and retains the ability to terminate a provider's participation if quality decreases or if CMS identifies a significant concern. The system financially incentivizes coordination of care between health care providers to provide quality care at a reduced cost.

New York University Langone Medical Center (NYULMC) has participated in the BPCI model 2 90-day episode of care for primary

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TKA and THA for Medical Severity Diagnosis Related Groups (MS-DRGs) 469 and 470, which encompass major joint arthroplasty or reattachment of lower extremity with and without major complications or comorbidities, respectively. In this report, the early experiences of BPCI during 2013-2014 at NYULMC are highlighted. In addition, the BPCI program has led to the introduction of Comprehensive Care for Joint Replacement (CJR), which will be implemented in 2016. This report will discuss the similarities and differences between CJR and BPCI.

Methods

Episode of Care

NYULMC Hospital for Joint Diseases (HJD) implemented the model 2 90-day BPCI for total joint arthroplasty MS-DRGs 469 and 470 beginning in January of 2013. Under this alternative payment program, the entirety of a patient's episode of care is covered by a single bundled payment. CMS defines an episode of care as "all Medicare Part A and Part B services provided by an entity wholly-owned or operated by the admitting hospital in the 72 hours prior to admission, surgeon fees, anesthesiologist fees, hospital facility services provided during the hospital stay, and services provided during the 90-day postdischarge period at any location" [2]. CMS monitors the period from 91 to 120 days to insure that services are not being shifted outside the bundle. NYULMC will be held financially responsible if such violations occur and may be removed from the program.

Retrospective Bundling

In BPCI, the initiator of the bundled episode (usually the hospital) is informed of financial compensation by CMS through retrospective reconciliation of all the charges to CMS after the episode of care. In this system, whether or not a successful episode has been achieved, health care providers bill and receive payment from CMS in the standard fashion. The sum of the claims is then retrospectively reconciled against the predetermined target price for each episode of care. The target price is determined by a 3-year average cost of the bundled services to CMS from the initiator minus a discount to CMS. If the sum of the hospital claims is lower than the target price then the awardee will receive payment for the difference. On the contrary, if the sum of the claims is higher than the target, the awardee has to repay CMS the difference. Surgeon reimbursement using this model is capped at 50% above the standard Medicare reimbursement rates. Gainsharing is determined by a formula composed of quality, cost effectiveness, volume, and value agreed on by the hospital, physicians, and other stakeholders involved in the bundled episode [3]. Any patient having surgery for one of the MS-DRGs is by default part of the bundle; it is not physician specific. Rather, all physicians involved in the operation and episode at the initiator hospital are included in the bundle. This functions to protect CMS from providers excluding certain higher risk patients or patient populations.

Care Management and Pathway Improvement

To successfully implement value-based care which would make the BPCI program profitable, NYULMC needed to streamline patient care for TKA and THA patients. This allowed more effective monitoring and control of all 3 phases of the episode of care: prehospitalization, inpatient care, and post–acute care. Ideally, the pathways would be applied to 90% of patients with exclusions determined solely by patient criteria, not by physician's preference. To accomplish this goal, a multidisciplinary team developed an evidence-based pathway for proper patient management. To oversee inpatient workflow, HJD uses nurse practitioners to implement standardized patient order sets, leads goal-driven rounds, and reinforces pathway expectations among care providers. Clinical care coordinators (CCCs) follow patients in the 90-day post–acute period regardless of a patient's discharge destination. CCCs improve communication with and educate our post–acute partners on clinical protocols related to total joint arthroplasty and insure a smooth care transition for the patient.

NYULMC has initiated the BPCI program as a way to improve quality and efficiency in our patient care for the benefit of all patients, regardless of the payer. The preadmission process was restructured to minimize cancellations while reducing extraneous laboratory testing and outside medical clearance. Intraoperatively, systems were created to reduce overall OR time, reduce the impact of anesthesia on rapid rehabilitation, improve perioperative multimodal pain management, and reduce implant waste, which has been shown to represent a significant cost for orthopedic procedures [4]. Improved, evidence-based, strategies have been implemented to manage postoperative pain, blood product utilization, urinary catheter use, and venous thromboembolic disease prophylaxis at a lower cost while maintaining, if not improving, the quality of care we provide for patients. Hospital costs were also reduced by eliminating ancillary days of hospital stay and targeting a 2- to 3-day acute length of stay as the rule, not the exception. These efficiencies of care initiatives enabled NYULMC to implement same-day discharge in selected patients; of which, Medicare patients are not currently eligible.

An area of emphasis in effectively managing a bundled care program is the destination of patient discharge. The goal is to maximize the number of patients discharged home, as this is associated with the lowest risk of readmission of all potential discharge scenarios, including discharge to a skilled nursing or rehabilitation facility [5]. In addition, if patients must be discharged to a higher acuity of care facility, the rehabilitation hospital length of stay must be minimized. This is a difficult variable to control. At NYULMC, we rely on maximizing utilization of NYULMC HJD preferred providers to insure implementation of rehabilitation pathways which maximize efficient rehabilitation and minimize cost. If a patient must go outside of this network, it is the responsibility of the CCCs to promote efficient progress toward home discharge.

Readmissions pose a significant threat to viability of the bundled payment system for TKA and THA in Medicare beneficiaries [6]. Guidelines are in place to manage minor outpatient complications such as deep vein thrombosis and wound problems and to prevent unnecessary readmissions. CCCs and the visiting nurse service provide increased protocol adherence by encouraging patients to return to surgeon's offices for any problems rather than presenting to an emergency room or an out-of-episode provider. In the event a patient must be reevaluated, CCCs instruct the patients to return to physician offices or the NYULMC immediate care center to control the number and location of readmissions. Minimizing trips to "local emergency rooms" avoids unnecessary complications to patient care and diminishes the cost implications of adverse events.

Risk Factor Modification and Preoperative Patient Optimization

Care management can only prevent complications from communication and education issues associated with the bundled episode. Complications associated with patient factors which are attributable to comorbidities cannot be altered postoperatively. Only preoperative optimization of these comorbidities is effective in preventing complications, adverse events, readmissions which affect the economics of the bundled episode and patient outcomes.