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

The Physician as the Provider at Risk: Rolling the Dice

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ABSTRACT

Background: There is significant need for physician innovation and leadership in health care as we adapt to bundled payment models of health care delivery.

Methods: We engaged a collective of 16 different private company orthopedic physician groups to apply to become episode initiators under BPCI models 2 and 3. The application process itself provided historical cost data, enabling each group to independently decide whether or not to proceed with the BPCI initiative.

Results: Ultimately, 7 of the private orthopedic groups decided to continue with the BPCI initiative. At the first quarter reconciliation, savings ranged from 9% to 17% across the participating groups.

Conclusion: The more leadership surgeons provide in value base care provision, the more our patients and health care system will benefit from optimization of care delivery.

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Episode-based bundled payments are becoming increasingly common in total joint arthroplasty as health care in the United States transitions from a volume-based service model to value-based purchasing. Traditionally, the episode of care for joint arthroplasty patients has not been comprehensively coordinated. The Innovation Center at the center for Medicare and Medicaid services (CMS) has created the Bundled Payments for Care Improvement (BPCI) initiative to improve care while reducing the cost of an episode of care, ensuring value for the money that CMS spends. In Model 2, the episode of care includes a Medicare beneficiary's inpatient stay in the acute care hospital, post-acute care and all related services during the episode of care, which ends either 30, 60, or 90 days after hospital discharge [1]. There is significant room for savings if health care providers are able to lower costs below the episode’s target price; however, quality of care must be maintained or improved.

During the BPCI open enrollment period, 2013 through 2014, CMS invited varying organizations to become episode initiators, including physician group practices (PGPs), hospitals, and hospital networks. As part of precedence rules that are applied when CMS determines to which Awardee to assign a clinical episode, priority was given to PGPs if the PGPs and their respective hospitals applied to the BPCI program simultaneously. This may be because the surgeons are the central focus of each patient’s care and are in the best position to improve care while reducing cost. Managed care organizations (MCOs), such as hospital systems, have progressively seized control of medicine over the past 3 decades. Large MCO and contracting networks regionally have been associated with the highest costs without demonstrable improvement in quality compared to the surrounding lower cost peers [2], indicating that they may not be the most effective drivers of the shift to bundled payments. BPCI represents a tremendous opportunity...
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for surgeons to provide leadership in the comprehensive care of each patient.

Surgeon involvement is imperative if health care is to truly achieve value-based care. Surgeons have face-to-face relationships with our joint arthroplasty patients and those relationships commonly last for decades. By contrast, an MCO may only have a relationship with a joint arthroplasty patient for a day or 2 with leading program administrators commonly having no direct relationship with the patient. Furthermore, surgeons are typically the only potential stakeholders who dedicate their professional careers to patients treated by joint arthroplasty surgery and to the practice and medical advancement of our field. The joint arthroplasty surgeon determines the indications for surgery preoperatively, performs the surgery, assumes much of the medical risk, and is the primary permanent contact related to surgery. As such, the surgeon is in a natural position to provide even more comprehensive leadership.

Fortunately, the BPCI structure allows surgeons who are affiliated with multiple MCOs and networks to work together as leaders of care in our field, irrespective of our network affiliations, and to assume leadership over the entire episode of care for our patients. By contrast, MCO-led BPCI programs separate surgeons by MCO network, thereby prohibiting rather than promoting joint arthroplasty surgeons from collaboration. In this report, we recount our experiences in developing a private physician BPCI initiative while exploring why PGP s should become episode initiators in BPCI.

Methods

Our physician-led BPCI program began with surgeons founding an organization (Ortho New England Group, LLC, Boston, MA) to serve as an Awardee Convener (AC) in the BPCI program. Awardee conveners are defined as ‘the Model 2 Awardee, which is financially liable for all NPRA and Excess Spending Amounts owed to CMS for Episodes of Care generated by all Episode Initiators’. In order to do this, we collaborated with a health care management start-up (Archway Health, Boston, MA) and engaged 16 private company orthopedic groups in the application. These groups were geographically located in Connecticut, Massachusetts, New Hampshire, and Maine. The application process itself provided historical data for each PGP, enabling each to independently decide whether or not to proceed with the model. Our particular BPCI initiative initially involved assessment of all orthopedic medical severity diagnosis-related groups (MS-DRG). The groups that elected to proceed in the model selected to do so with MS-DRG 469 and 470, which include major joint arthroplasty or reattachment of the lower extremity with and without major complications or comorbidities, respectively. Physician-led BPCI programs are certainly not unique as CMS reported in November 2015 that of the 1277 new episode initiators in the BPCI as of the 10/1/2015 enrollment closure, 305 were PGP s and over 100 were orthopedic groups [1].

Results

Historical Data

As part of the application to BPCI model 2 and model 3, we received historical data for the PGP s that applied to become episode initiators. The data included all orthopedic episodes from July 2009-2014. Of the 16 initial practices, 7 ultimately proceeded with BPCI for DRG-469 and 470, going at risk either on 4/1/15 or 7/1/15. All groups selected 30-day risk periods to simplify the scope of the project at the outset and because these parameters can be changed quarterly. Of the remaining groups, 6 had historical spends so low that improvement opportunity was too small to justify the financial risk. One group had a change of tax ID number during the historical period, limiting the available data. From the data available, it did not appear prudent to proceed with BPCI. Another group had a very close pre-existing relationship with an organization that could also serve as their AC. They elected to proceed in concert with the other organization after Ortho New England Group LLC filed the application and analyzed the historical data. The remaining 2 groups decided not to proceed.

Early Improvement

Based on the initial data assessment, it was clear that the participating PGP s were experiencing reductions in the cost of postacute services. Figure 1 illustrates the reduction in the skilled nursing facility (SNF) days per major joint episode for one of the PGP s. In addition, 30-day readmission rates fell from over 7% in the baseline period to less than 2% in the first 2 performance quarters.

The first quarter reconciliation for the period of Q2 2015 was received in January 2016. One group in the Ortho New England program achieved savings of over 17% per case while a second group achieved a savings of 9% per 30 day episode versus their respective target prices.

Discussion

Opting Out

Two groups decided not to proceed with the BPCI initiative, even with opportunity for improvement. The specific reasons for choosing not to proceed were varied. Some groups had differing opinions among the surgeons in the group. In some cases, surgeons had or desired to have administrative positions in their contracting networks or hospitals. In other cases, the hospitals did not want the groups to move forward with the application because surgeons would have had priority over the hospital.

Cost Variation

Analysis of the joint arthroplasty data provided insight into the care of our patients that had not been previously available. This is especially significant as many of our surgeons have performed thousands of joint arthroplasty cases in their careers. The cost variation between different practices was large, with the average cost of some groups being 150% more than others in the same region. Because acute care hospital costs and home health agency (HHA) costs are very similar because of DRG and Home Health Resource Group payments, respectively, most of the cost variation resulted from variance in utilization of SNFs and to a lesser extent, readmission costs.
While bound by the same model rules, there are fundamental differences in the BPCI initiative in physician-controlled versus hospital system controlled environments. While the program rules are identical, there are fundamental differences between a physician-controlled BPCI program and a hospital system-controlled BPCI program. Primarily, hospital-controlled programs have some competing economic conflicts that are more difficult to manage. For example, patient hospitalization and recovery times are decreasing. Today patients are more frequently ready to return home within 2 days of surgery or even on the day of surgery. This reduces the hospital’s DRG payment 30%, or nearly $4,000, per DRG-470 case, based on our CMS-generated historical data set. Such excellent early recovery is a clinical goal with benefits for both patients and BPCI programs; however, it is less remunerative for the hospital, creating a conflict.

A similar example concerns the waiver for short hospital stays. There are clinical circumstances whereby a patient will clearly benefit from a stay at a SNF for physical therapy reasons but not for medical reasons. Traditionally, a patient is required to stay at the acute hospital for 3 days before being transferred although the patient is medically appropriate for transfer earlier. As part of the BPCI initiative, a CMS waiver exists which allows for early transfer. As in the previous scenario, early transfer to an SNF is perfectly appropriate for the patient and lowers overall cost, albeit, at the expense of lower hospital reimbursement. Again, this creates conflict for an MCO or hospital-controlled BPCI program.

A third difficulty for MCO-controlled BPCI programs arises if the MCO owns the SNF or home care agency. Care improvements that reduce SNF and HHA utilization and cost create another conflict for the MCO. MCO-driven BPCI programs can certainly be successful, but must manage these internal conflicts. Physician-controlled BPCI programs (in which physicians typically have no financial interest in the hospital, SNF, or HHA) do not have these conflicts. Therefore, physician-controlled BPCI programs are in a better position to more appropriately uphold the integrity of value-based care.

Although a surgeon-at-risk BPCI program may not have the conflicts that an MCO program must manage, MCO-related conflicts still arise and can be challenging to manage. For example, if data suggest that an independent HHA is clinically superior and communicates more effectively than an HHA owned by the same MCO as the acute care hospital, it may be difficult to work toward improvement if case management is geared toward self-referral. On the surface, one may think that a system that controls the acute care hospital, SNF care, and HHA care leads to better care coordination; however, data analysis more consistently shows higher cost. From the viewpoint of a surgeon-at-risk BPCI program, hospitals, SNFs, and HHAs can be assessed objectively, creating the ability to make purely merit-based decisions. Furthermore, increasing interoperability of electronic medical records and independent methods of communication, such as the ones used in our program, make the affiliation that the surgeon has with an MCO or network less relevant. By contrast, MCO self-referral behavior can potentially diminish the impetus for improvement in quality or value because the referrals may not be fundamentally based on merit. An additional challenge concerns circumstances where patients or patient families are insistent on SNF transfer, for social reasons or purely for custodial care, in the absence of medical necessity. Such circumstances may be largely unavoidable but may become less common as patients are better assessed and educated preoperatively. Certainly, the drawbacks and risks inherent to recovery in a communal institutional setting much be weighed against these less-compelling potential benefits and cost of care.

Another challenge for MCO-controlled BPCI programs concerns the finding that the largest MCOs in our region are associated with the highest cost. For example, the National Bureau of Economic Research has reported that “hospital market structure stands out as
one of the most important factors associated with higher prices, even after controlling for costs and clinical quality." They found health care prices to be 15.3% higher in hospitals located in monopoly markets vs markets with 4 or more providers [3]. In Massachusetts, the largest MCOs have been identified by the state attorney general’s office as being associated with the highest cost for joint arthroplasty without a commensurate increase in health care quality [2]. Based on these data, such large MCOs may be the least likely to provide innovative leadership in improving quality while reducing cost in joint arthroplasty health care, the core goal of the BPCI program.

**What Have We Learned?**

Active participation in BPCI immediately expands the scope of the surgeon viewpoint. Traditionally as surgeons, we have been taught to and have focused on appropriate indications for surgery, proper planning and execution of the surgery, appropriate management of medical problems, clinical excellence, outcome, and patient satisfaction. We have not been focused on out-of-hospital cost improvement and, in fact, have not had access to the proper information that would allow us to analyze or address the problem. With BPCI data, a surgeon can look at his or her own patients and knowing who the patients are, what their surgery entailed, where they live, their family circumstances, their medical comorbidities, and their clinical outcome, gain insight into the components of care delivery that are most effective and value based. Having this episode-by-episode insight has been and remains extremely instructive. Again, it puts the surgeon in the most natural position for leading improvement in both cost and quality of care. While we lack full insight into quality measures, lower numbers of readmissions and reduced consumption of resources are good signs of progress on this front.

Universally, the qualitative impressions are that patients who recover the most rapidly consume the fewest resources. As such, controlling for patient-specific factors, lower cost is a measure of better outcome. Our data, however, allow us to measure other cost-influencing variables, such as waste of resources, which can easily be seen on the episode level and trends can be identified over multiple episodes. Our data also allow us to correlate different surgical techniques with different costs per episode and different hospitals with different average cost. The hospitals did not vary greatly in direct cost (DRG payment), but did vary by postacute cost, mainly related to the likelihood of home discharge vs SNF transfer. Hospital cost does not vary much because of the fact that this reflects CMS-reimbursed DRG payments, which do not involve the true cost of care delivered by the hospital, but do reflect the true cost to CMS.

In addition to analysis of the hospitals, the data allow for assessment of SNFs and HHAs. In particular some SNFs had average lengths of stay twice as long as others. This created opportunities for improvement, not just in surgical technique and acute hospital care, but with respect to downstream management, better care coordination with case management, and better care coordination with SNFs and HHAs. In addition, PGP in some areas have the flexibility option to move between hospitals and post-acute care providers based on performance, thus maximizing the value of care they provide and allowing for the development of preferred postdischarge care providers. BPCI gives us the ability to evaluate these facilities based on performance from a communication, cost, and value point of view. Figure 2 outlines the mechanism we use for rating and selecting preferred postacute providers.

Early clinical experience precedes BPCI data reconciliation by about 9 months and so surrogate data may be used in the short term. Data that may be most predictive at the outset are simply the percentage of home vs SNF discharge disposition, the average length of stay at a SNF, and readmission rate. One of our groups showed reduction in total SNF days per procedure performed from 11.4 to 3.4 days from the baseline period to the first 2 quarters of the BPCI performance period, respectively. This accounts for savings of $3200 per case for the group on that parameter alone.

In contrast, historical data also show the tremendous negative impact that readmissions impose on total program cost. These readmissions have large unknown effects that cannot be reliably predicted. Nevertheless, it is essential to control readmissions in order for BPCI to be financially viable. To assist in this process, we use “CareLink” (Archway Health, Boston, MA), a mobile application for participating SNFs and HHAs. CareLink provides updates on patients in the system allowing surgeons to track which patients are in the program, where the patient is at any given time (hospital, SNF, home, and so forth), whether the patient is on tract, and any issues that have arisen. This allows the treating surgeon to know the status of their patients and address any problems, reducing unnecessary visits to local emergency rooms and unwarranted hospital readmissions. CareLink functions as an additional tool with which we may evaluate the performance of participating SNFs and HHAs. An example of the dashboard for physicians and case managers who are tracking patients in the BPCI initiative is shown in Figure 3. Tools such as these have tremendous potential to improve communication and prevent complication while reducing waste and frustration of both the patient and surgeon.

BPCI data enable and implore us to look for care improvement and savings opportunities in a variety of different areas. One such area involves periprosthetic fracture after arthroplasty. Episode level data demonstrate the significant financial burden for these reoperations, often costing $60,000 or more for an episode targeted for $30,000 or less. A BPCI program requires a considerable number of episodes with excellent outcomes to balance these challenging and expensive complications. With a surgeon-at-risk program, the ever-present desire to avoid such complications becomes even more poignant than ever before. For example, a surgeon’s desire to reduce the incidence of early periprosthetic fracture after hip arthroplasty may increase the use of prophylactic cerclage wires, nonwedge-fit stems, and even cemented stems in the elderly osteoporotic patients undergoing total hip arthroplasty. Furthermore, with acquisition of additional episode data, data analytic tools will allow us to evaluate surgical approaches, component choices, precision alignment technology, tourniquet use, tranexamic acid use, and more to achieve the best possible outcome and value.

**BPCI vs CJR**

Under BPCI, surgeons are individually limited to gainsharing of 0.5 relative value unit (RVU). However, the physician’s practice can receive gainsharing proceeds all the way to the 20% BPCI initiative cap, which is $6000 per episode assuming a target price of $30,000. This remains true whether the episode initiator is the PGP or the hospital. Therefore, PGPs invested in the BPCI initiative should be eligible to receive gainshare above 0.5 RVU, all the way to the program cap. Such gainsharing with PGPs is allowed purely for cost savings to CMS. Many MCO-controlled BPCI programs require surgeons to also achieve internal cost savings within the hospital to fully gainshare. However, that is a local
administrative decision, not one exerted by CMS. In order for PGPs to fully gainshare up to the 20% BPCI initiative cap, the Clinical Implementation Protocol must be reviewed and accepted by CMS. 

Early success of the BPCI initiative led to the development of Comprehensive Care for Joint Replacement (CJR), a bundled payment model for lower extremity joint arthroplasty procedures. CJR will be initiated on April 1st, 2016 and required in 67 designated metropolitan statistical areas. Although model rules are dynamic and subject to change, in CJR, hospitals will be in complete control and surgeon gainsharing will be capped at 0.5 RVU [4]. With a 4% savings, surgeons could meet the maximum gainsharing opportunity. Thus, there will be limited incentive for the surgeon to assist in improvement beyond this mark, undermining the core philosophy of value-based purchasing. As currently constructed, CJR specifically excludes the surgeons, that is, the only stakeholders who have dedicated their professional lives to the care of the joint arthroplasty patients, from taking responsibility for these programs because the relationship is between CMS and the MCOs. If this does not change, the CJR program will create new leverage points for MCOs to reduce the independence and autonomy of the surgeon in private practice. Because these programs are in evolution, it is possible that these rules may change to allow surgeons the opportunity for full leadership in the comprehensive care of our patients in CJR. The current structure of CJR creates additional motivation for physicians and PGPs to take on leadership roles and become episode initiators in BPCI if future enrollment periods arise.

Concerns With Bundled Payments

Many physicians are concerned that value-based purchasing and bundled payments are a race to the bottom. Meaning, after we successfully reduce costs the target prices will be lowered and the opportunity for savings will diminish. This is a legitimate concern; however, this is the world we live in. Bundled payments, the future of value-based purchasing, are a reality whether the charge is led by physicians or MCOs such as in CJR. Evidence suggests that in Massachusetts, the 5 general acute care hospitals with the most commercial discharges in 2014 excelled at negotiated reimbursement per episode. However, the higher cost of these providers compared with others in the region could not be explained by a variety of quality measures including Agency for Healthcare Research and Quality indicators, patient experience scores (Hospital Consumer Assessment of Healthcare Providers), mortality and readmission rates, Massachusetts Data Analysis Center cardiac procedure outcomes, and a process measure composite [2]. These data demonstrate that the largest MCOs in
Massachusetts represent the poorest value for the consumer, whether that be the patient, the employer, or the insurer. Such constant escalation of cost without commensurate benefit is unsustainable. We surgeons will likely better serve our patients and our profession by taking active interest in these programs to provide leadership as we navigate through this new direction of health care.

Another concern with these emerging programs surrounds frail and older patients. These patients are at greater risk for extended rehabilitation and complications, representing high risk from an economic standpoint. Moving forward, we must ensure that these patients have access to the care they require and deserve. Excelling at improvement for most patients will create greater opportunity for ensuring that the more complex patients can be well-served within the same program. In addition, more successful treatment of this population will require a greater degree of preoperative counseling, surgeon involvement, and degree of preoperative intervention to further improve outcome while mitigating both physical and financial risk.

Implementation of BPCI does require some financial risk as the proper infrastructure is put in place. Although the provider is at risk, our early experience has shown that BPCI can be successfully applied by a cohort of PGP’s working together for quality improvement and lower cost. Furthermore, the BPCI application process itself provides historical data to potential episode initiators. Analysis of these data allows each group to assess for cost-saving potential, at which point they can assess whether or not to proceed. In our case, we received data from PGP’s affiliated with many hospital systems and from a wide geographic area. This allowed us to compare cost data and choose groups with higher cost-saving opportunity, mitigating the financial risk. Because the BPCI initiative rewards improvement, those groups that improved care and reduced cost before the creation of the programs are unfortunately penalized and excluded from these programs de facto because of very low target prices and attendant high risk and low opportunity. In the future, if these programs are benchmarked in part on regional averages rather than strictly on historical cost data, groups with the most historically efficient patient care may be included in rather than excluded from this process.

Conclusion

Our early experience has reinforced our decision to develop a physician-controlled BPCI program where the provider is at risk. In our view, putting joint arthroplasty surgeons, not just in leadership positions, but in control of the comprehensive care of our patients is preferable to ceding control to MCOs. Such a program gives the surgeons root access to the data and is free of the conflicts that an MCO-controlled program has to manage. By contract, CJR is by design an MCO-controlled mandatory program, which to date, has blocked physicians from running these programs. If orthopedic practices have an interest in taking a greater leadership position in the comprehensive care of their CMS patient population, applying to BPCI if another open application period arises would be prudent.

References


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