

Win Win

How to Win with Bundles

The movement from volume to value has become real. Right now, 800 hospitals are grappling with mandatory participation in the Comprehensive Care for Joint Replacement (CJR) program that begins on April 1, 2016. However, CJR is only the beginning. CMS has given clear indications that the bundled payment approach of CJR will be extended to a wide variety of medical and surgical conditions over the next several years. Private payers are following CMS's lead, aggressively developing and introducing alternative payment models similar to CJR that transfer the financial risks of poor outcomes and high costs to providers.

Successful roll out of bundled payment models faces two significant issues: 1) bundle design poses significant challenges that few organizations have solved, and 2) winning with bundles requires an understanding of and ability to manage risk.

Well-designed, risk-adjusted bundles help to align incentives and reward providers for delivering high quality, cost-effective care regardless of patient severity. They are reproducible across organizations and can be applied to all but the most complex cases best suited for case management. For those organizations that approach bundles intelligently, through thoughtful design that embraces managing clinical and financial risk, there is a sizable opportunity to improve the patient experience, increase market share, improve hospital-physician relations, and increase margins.

The Limits of the CMS Approach

CMS and many payer-based initiatives have avoided the temptation to construct and price bundles on a service by service basis, either

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prescriptively through a clinical pathway or empirically by aggregating services identified using historical data. Instead, these initiatives have elected to build bundles based upon MS-DRGs and are broadly inclusive of all services that

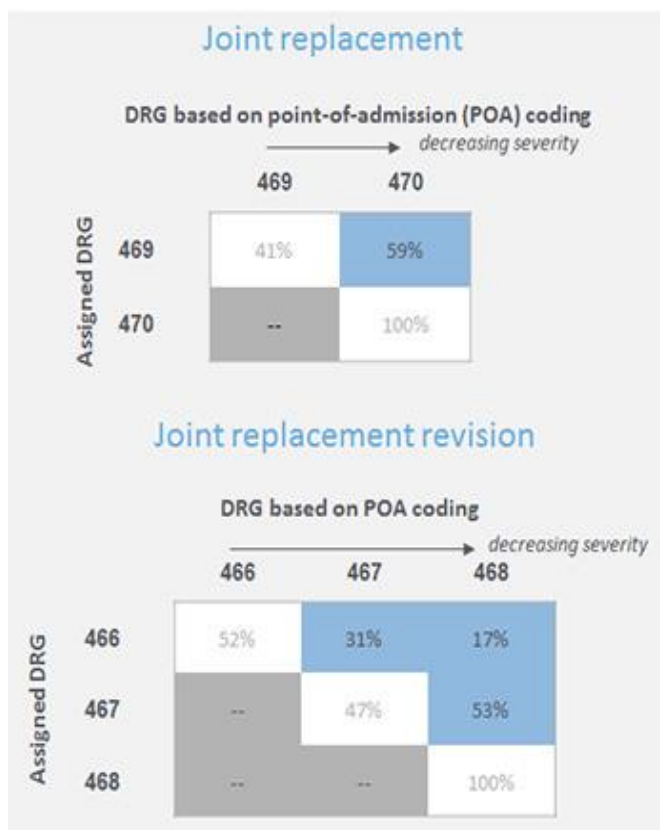
cannot be cleanly dissociated from the index care. The MS-DRG classification not only qualifies a case for inclusion in a bundle but determines the payment amount. This is a superior approach, but not without some significant limitations. While MS-DRGs provide broad categorizations, they were not designed for bundled payments. Their inadequacies for this purpose pose several major problems.

First, MS-DRGs often are too heterogeneous and contain subpopulations that behave differently from other components of the group. These subpopulations may have different adverse outcome and cost profiles. Necessary risk adjustment within the MS-DRGs that is fair to all interested stakeholders cannot be adequately performed. Providers cannot be appropriately compensated for these subpopulations and have financial incentives to avoid them when their profiles are associated with increased risk or to select them when their profiles are associated with lower risk. CMS is just beginning to address this issue through modifications to the MS-DRG definitions.

An additional issue that has been widely overlooked is the loss of revenue associated with improving quality under a MS-DRG based system. MS-DRG classifications are based on complications as well as comorbidities, with these complications and/or comorbidities placing a case in a higher order classification. Higher order classifications receive greater payments. Therefore, reducing complications may shift cases from a higher order classification to a lower order classification, resulting in a loss of revenue. The financial ramifications of this are further exacerbated because resources are required to improve quality. Meaningful care redesign carries an appreciable penalty if it is successful.

To better understand the potential impact of MS-DRG shifts, the MS-DRG was reassigned for joint replacement and joint revision cases in Medicare data from 2012-2014 using only diagnoses designated as present on admission. In the case of MS-DRG 469 (the higher order joint replacement MS-DRG), 59% of cases would have been reclassified to the lower order and lower paying MS-DRG 470. As Table 1 shows, similar

DRG shift The financial risk of managing complications



DRG descriptions:

- 466 – Revision of hip or knee replacement w/major complications and comorbid conditions (MCC)
- 467 – Revision of hip or knee replacement w/ complications and comorbid conditions (CC)
- 468 – Revision of hip or knee replacement w/o CC/MCC
- 469 – Major joint replacement or reattachment of lower extremity w/MCC
- 470 – Major joint replacement or reattachment of lower extremity w/o

downward shifts can be seen in the joint revision MS-DRG groups.

As discussed below, a better bundled payment system exists and is highly recommended to any organization that has the opportunity to influence payment model design. This is true for most payers and for providers who are collaborating with payers toward models that better align incentives for all stakeholders.

What about providers that do not have the market power, influence, or relationships necessary to advance a better model? These providers are essentially price takers (e.g. CJR) whose revenue is fixed according to rules set by others. While providers are significantly disadvantaged under a flawed payment structure, they still have the ability to mitigate some of the financial downside. Treating their revenue as effectively fixed, these providers can use this approach to bundles to reduce their expense structure. The key is understanding the sources of risk in your model of care and learning how to better manage that risk.

A Better Design

The bundle design described in this section may be superimposed onto the relationship between providers and their clinicians or downstream providers. Providers that introduce this design are in a position to optimize their effectiveness while minimizing their expenses across the bundle by aligning incentives throughout the care continuum. Consultation with experts in this type of bundle design can prove invaluable to providers interested in preserving their viability as flawed payment models are improved.

Properly performed risk adjustment can be used to establish pricing that not only reflects the costs of providing high quality care, but includes a warranty

to protect providers against losses associated with adverse events that may occur even when the highest standard of care is delivered. Risk adjustment is essential to winning with bundles. At the most basic level, it insures that payments reflect the severity, complexity, and comorbidities associated with each case. Providers should be financially indifferent between caring for a straightforward case and a high risk case. High risk cases then represent a substantial financial

Risk adjustment is essential to winning with bundles.

opportunity when high quality, cost-effective care can be delivered. If this approach isn't followed, providers will favor some cases over others and bundle gaming will ensue.

Most systems used to predict costs act as though there is only one source of costs in an episode of care. They treat cost like a continuous function. They attempt to model cost directly using a single predictive model. This single model approach sacrifices predictive power because it does not properly account for cost 'lumpiness' or the factors that produce it. Cost certainly has a continuous element, where increased complexity is associated with a gradual increase in resource utilization.

However, healthcare cost is also naturally 'lumpy.' Significant jumps in cost are associated with the occurrence of specific events. A complication of care, for instance, can introduce a spike in costs of 50 percent or more that does not exist for a routine case. Even routine care has elements that add 'lumpiness' to the cost curve. For example, in knee-replacement, post-operative rehabilitation in

an inpatient facility adds a sizable amount to the cost of care. Unfortunately, the sources of cost 'lumpiness' are not driven by the same set of risk factors, and even when individual risk factors overlap, the relative influence of those risk factors may differ substantially.

To obtain the best possible estimation of cost, multiple predictive models must be created for both the costs and the sources of 'lumpiness'. The results of these models can then be combined to compute a final predicted cost. Estimations using this risk-adjustment approach have been shown to be 30 to 40 percent better than those produced by a single model.

The costs of routine care should be modeled independently and should serve as the core amount in computing the risk-adjusted price for a bundle. This requires the separation of routine cases from cases with serious adverse events. A routine case is not necessarily a case without a complication. Cases that have minor complications that minimally disrupt the care delivered and have only a marginal effect on cost resemble uncomplicated cases much more than cases with serious

adverse events. For example, a surgical patient may develop a urinary tract infection that is identified

early and treated with an inexpensive antibiotic. Mixing these cases into the analysis of serious adverse events may weaken the results and increase providers' financial risk when complications do occur.

Managing Risk with Warranties

A warranty is an important part of a cost-effective bundle. While they are still rare in health care, warranties are commonly used with commercial goods to manage risk. Companies compute the probable defect rate of the manufacturing process and the average cost of repairing the defect or replacing the product. Multiplied together, they yield a warranty amount that covers the expected cost of providing a guarantee to the consumer. Companies that can reduce the defect rate below what is expected retain the warranty payment and increase their margins.

A healthcare warranty functions in much the same way as a warranty on commercial goods. Since risk varies across patients, expected rates of occurrence for adverse events and the predicted cost when those events occur (i.e. risk) should be carefully computed at the patient level.

The resulting warranty amount can then be added to the budgeted costs of routine care for each case. The effect is to create a reserve fund that protects a provider against the risk of adverse events. That is essential if a provider wants to offer a prospective bundle. In addition, the warranty provides an incentive and a



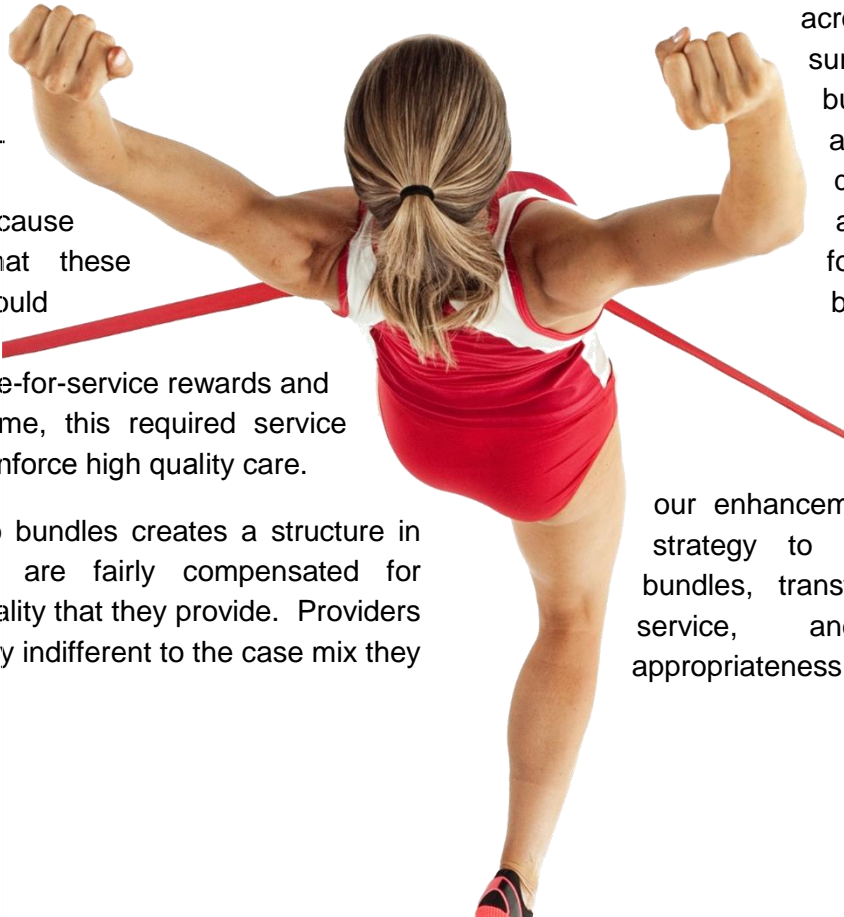
reward to providers who are able to reduce the frequency and/or severity of adverse events below what is expected.

Bundles designed using this technique conform to the practical realities of care delivery. The focus is on achieving outcomes rather than adhering to specific processes. Providers retain the flexibility to deliver the care that, in their best judgment, their patients require on a case by case basis. However, this approach does not overlook the benefit of standardization. When specific processes are required components of high quality, cost-effective care, they can be 'carved out' of the bundle and reimbursed under a fee-for-service arrangement. Because the goal is that these services should always be performed and fee-for-service rewards and encourages volume, this required service 'carve out' will reinforce high quality care.

This approach to bundles creates a structure in which providers are fairly compensated for guarantees of quality that they provide. Providers become financially indifferent to the case mix they

care for within a bundle and can safely pursue the larger savings opportunities offered by more complex cases. In addition, this bundle design easily accounts for the creation of bundles covering any time frame (e.g. inpatient only, inpatient plus 30 days post discharge, inpatient plus 90 days post discharge), allowing providers to capture savings over larger intervals generated by high-quality, cost-effective care.

For over 15 years, MPA has worked extensively with episodes, global fees, and bundled payment designs. We have found that this framework for bundle design is robust and translates easily across the spectrum of surgical and medical bundles. This approach to bundled design also provides a strong foundation for the evolution of bundled payment. Please contact us to learn more about how to win with bundles, or about our enhancements of this bundle strategy to address concurrent bundles, transfer pricing, site of service, and high level appropriateness.



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