

What Have We Learned About Bundling Medical Conditions:

As an alternative payment model, bundled payments hold the potential to improve the value of care by holding clinicians and organizations accountable for episode-specific quality and costs. Medicare has scaled bundled payments nationwide via several programs that define episodes based on hospitalization and up to 90 days of post-acute care.

However, the impact of bundled payments appears to differ between surgical and medical episodes. On one hand, Medicare has achieved promising results from bundling surgical care for lower extremity joint replacement. Medicare's evaluation of its largest national bundled payment program, the Bundled Payments for Care Improvement (BPCI) initiative, has demonstrated that participation in joint replacement bundles is associated with a 3.8 percent decrease in per-episode spending with stable-to-improved quality. Other work evaluating the experience of high performers in BPCI demonstrates that bundled payments may reduce the costs of joint replacement episodes by up to 20 percent, with sizeable bonuses to physicians and hospitals and small improvements in quality – outcomes that, if scalable, would represent a win for patients, clinicians, organizations, and Medicare alike. On the other hand, recent evidence corroborates analyses conducted by Medicare and its contractor, suggesting that as designed, bundles for medical conditions such as congestive heart failure (CHF) and chronic obstructive pulmonary disease (COPD) are not associated with significant changes in quality or Medicare spending.

Therefore, one critical aspect of understanding the impact of bundled payments is evaluating how and why it differs for surgical versus medical care. This insight is particularly important given that surgical and medical episodes will be further expanded at a national scale in the forthcoming Bundled Payments for Care Improvement Advanced (BPCI-Advanced) program. In this post, we describe why the lack of episode savings in Medicare's medical bundles may not be unexpected, why policymakers should not abandon medical bundles, and why existing evidence poses three important policy implications for the future of medical bundles.

Why Results May Differ For Surgical Versus Medical Bundles

By designing bundles that span hospitalization and post-acute care, Medicare has emphasized reductions in post-acute utilization and spending as major financial savings opportunities. While this approach suits surgical care in which a procedure triggers a cascade of acute and post-acute care, it may pose several challenges for episodes related to medical conditions. First, spending patterns for surgical versus medical care differ, more predictably spiking after surgical procedures but adopting a more cyclical pattern for chronic medical conditions. Accordingly, hospitalization may be more appropriate as an episode trigger for surgical episodes than for medical ones.

In surgical care such as joint replacement, hospitalization is a clear, distinct trigger before which there would be no expected episode-related utilization (e.g., little to no joint replacement-associated services prior to the surgery) and after which there is a distinct cascade of related utilization (e.g., physical rehabilitation, wound care, and post-surgical follow-up). In contrast, hospitalization only represents one aspect and phase of management for medical conditions such as CHF and COPD, which span outpatient, inpatient, emergency department, and post-acute settings over longer periods.

Second, physicians' and hospitals' ability to impact post-acute care utilization and spending may differ between surgical and medical episodes. This difference is not simply a reflection of the proportion of total episode spending paid to institutional post-acute care providers. For example, spending on skilled nursing facilities and inpatient rehabilitation facilities was only marginally higher for joint replacement compared with five medical conditions (26 versus 24 percent, respectively).

Rather, differences in the ability to impact post-acute care utilization may relate to the types of services provided in institutional post-acute settings for surgical versus medical patients.

For surgical episodes, care at skilled nursing facilities often involves discrete, time-limited activities such as physical rehabilitation to achieve post-surgical recovery (e.g., strengthening, functional improvement). In contrast, given the natural history of diseases such as CHF and COPD, institutional post-acute care services for medical patients generally involve complex tasks such as medication management (e.g., diuretics) and multifaceted occupational therapy to promote self-care and activities of daily living. Consequently, hospitals in surgical bundles have achieved savings without compromising quality by shifting discharges from skilled nursing facilities and inpatient rehabilitation facilities towards home, with either home health or self-care. However, it remains unclear if similar efforts are possible or appropriate for the types of post-acute care that are often required as part of medical bundles. In turn, discharge patterns in medical bundles may reflect the less predictably defined roles of institutional post-acute care providers.

Another reason that shifting discharges away from institutional post-acute care providers may prove challenging under medical bundles is that they involve different types of patients than those often involved in surgical bundles. As noted recently, patients in medical bundles tend to be older and at higher risk for poverty and disability than patients in joint replacement bundles. In turn, patients receiving care for medical conditions may have greater clinical needs during and after hospitalization than patients undergoing surgical procedures.

Implications for the Design of Medical Bundles

Collectively, these dynamics offer insight into why clinicians bundling care for medical conditions have not achieved savings in BPCI. They also have implications for the design of medical bundles going forward.

First, Medicare could consider modifying when and how medical episodes begin. Rather than being a necessary pre-condition for an episode, hospitalization itself may be a modifiable element of variation in medical conditions. Consequently, unlike in surgical procedures, using hospitalization as a medical episode trigger may miss the opportunity to include cost and utilization variation across the care continuum. As an alternative, if medical episodes were triggered in the outpatient setting – for example, after two specialty office visits within one month — providers might be better able to coordinate medical bundles with other efforts to improve value (e.g., payment models such as accountable care organizations and policies such as the Hospital Readmissions Reduction Program).

Second, Medicare could design medical bundles so that the emphasis on improvement is not restricted to care delivered in the post-discharge period. While variation reduction is not an absolute requisite for performance in bundled payments, care standardization remains an important organizational strategy for improving episode-based care. Creating incentives to focus on outpatient and pre-discharge elements may be particularly fruitful for medical bundles given the complexities of ongoing (in the ambulatory setting) and acute (in the hospital setting) management, and the possibility that practice redesign may require more time and greater effort than in surgical episodes.

Third, more data are needed to understand the impact of medical bundles and how best to design them in the future. To date, we have only early evidence about the impact of medical bundles in BPCI (the mean number of months of BPCI participation was 7 months for these hospitals). Given that other alternative payment models such as accountable care organizations have required three or more years before participants achieved savings, medical bundled payment policy should be guided by longer-term evaluations. Such evaluations should also closely monitor the programs for unintended effects: while it may be reassuring that medical bundles have not appeared to inadvertently lead to more readmissions or emergency department visits, vigilance is nonetheless required given the history of racial disparities in access that stem from quality- and value-based policies. Finally, future work can speed progress towards improvement by providing more detailed descriptions of the utilization and spending patterns of patients involved in medical bundles, as well as highlighting the experiences of high-performing providers.