Bundled Payment

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Bundled payment (BP) is defined as a single aggregate payment for all health care services for clinically defined episodes of care. Some results suggest that transitioning from a fee-for-service model to BP resulted in a <10% decline in spending and a 5% to 15% decrease in the utilization of services in the bundle. However, future BPs will need to account for how individual providers will be compensated for their services, and acceptance of BP as a viable health care payment model will depend on the ability of payers and providers to collaborate in a new way to address several operational and implementation challenges

Key Words: Bundled payment, health care reform, episodes of care

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INTRODUCTION

One of the most challenging problems we face as a nation is the continued increase in health care expenditures. In 1960, national health care expenditures were $27 billion and represented approximately 5.1% of the total gross domestic product [1]. The Patient Protection and Affordable Care Act represents one of the most significant changes in the US health care system since the passage of Medicare and Medicaid in 1965 [2]. The new legislation is aimed at decreasing health care costs, improving quality, and reducing the number of uninsured Americans.

There are many tactics to reduce costs; one of the most intriguing and controversial is the concept of bundled payment (BP). The goals of BP are to improve population health, enhance the patient care experience, and reduce costs. The challenge for radiology is to demonstrate our value to our patients and providers to ensure that our services are properly compensated in aggregate payment models. The intent of this paper is to introduce the concept of BP, discuss the ongoing controversies with this type of payment approach, review the initial experience with exploratory BP models, and propose strategies for radiology to participate in future BP paradigms.

History of Bundled Payments

BP is a single reimbursement for services rendered by all providers for an episode of care. The term *episode of care* is defined as the total care (hospitals, physicians, diagnostics, etc) provided to treat a particular patient's condition for a given length of time [3]. Other terms that have been used to describe BP include *bundled care*, *episode-based payment*, *episode payment*, *episode-of-care payment, case rate*, *evidence-based case rate*, *global BP*, *global payment*, *package pricing*, and *packaged pricing* [3,4]. An episode-of-care payment is somewhat analogous to a diagnosis-related group (DRG) payment, except that the payment aggregates technical and professional payments and often includes immediate prehospitalization and a length of time (30—90 days) after discharge [5].

Fee-for-service (FFS) reimbursement involves separate payments for individual services, while capitation is a single per capita prospective payment for all services over a fixed period of time, regardless of the number of episodes of care or services provided within the coverage period [5]. Currently, the insurer assumes the full financial risk of the care of the patient in the FFS model. Under capitation, the provider assumes the majority of the financial risk. The appeal of BP models is the attempt of both providers and payers to share the financial risk of providing patient care services. If the cost of a defined episode of care is less than the BP amount, the providers keep the difference. However, if the cost exceeds the payment, the providers absorb the loss [4].

Variations of BP have been present in our health care system for the past 30 years. The creation of DRGs in the mid-1980s provided a single comprehensive payment for the facilities charges associated with inpatient hospitalization (Medicare Part A). The physician charges (Part B) were billed and reimbursed separately. DRG payment covered only inpatient care, and a separate DRG payment was generated if a patient was readmitted after discharge, regardless of the interval between discharge and readmission. In 1984, the Texas Heart Institute, under the direction of Denton Cooley, began to charge flat fees for both hospital and physician services for cardiovascular surgeries [6,7]. The initial results were promising, and in 1985, the flat fee for coronary artery bypass surgery at the institute was $13,800, compared with the average Medicare payment of $24,588. The institute also claimed that its approach was able to maintain a high level of quality while lowering costs [7].

Another early experience with BPs took place in Michigan between 1987 and 1989 and was a

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collaboration between an orthopedic surgery center, Ingham Regional Medical Center, and a health maintenance organization [6,8]. The health maintenance organization referred 111 patients to the surgery facility for possible surgery, with the initial evaluation being free of charge. The surgery center and hospital received a predetermined fee for any arthroscopic surgery performed. This fee also provided postcare coverage, including postsurgery expenses. The initial results were financially successful, with the health maintenance organization paying charges of $193,000 instead of the expected charges of $318,538, the hospital receiving $96,500 instead of the expected reimbursement of $84,892, and the surgery center receiving $96,500 instead of the $51,877 expected [8].

One of the first BP programs sponsored by Medicare was the Medicare Participating Heart Bypass Center Demonstration. This program began with 4 hospitals in 1991 and expanded to 7 hospitals in 1993. Participating hospitals received a single payment covering hospitals and physician services for coronary artery bypass graft surgery. The payment rate was updated on the basis of the Medicare hospital payment and Physician Fee Schedule [3]. The change in reimbursement methodology saved $15.31 million for Medicare and $1.84 million for Medicare beneficiaries and their supplemental insurers, for a total savings of $17.2 million (15.5%) [9]. A 1998 report showed that in the 5 years of the demonstration project, the change in reimbursement methodology saved a total $50.3 million (11.5%). After controlling for patient risk factors, the inpatient mortality rate in the demonstration hospitals also declined over the course of the project [10].

Given the early success and conceptual benefits of BP, several BP programs have been piloted (Appendix) Many of these programs were limited in scope or were implemented in highly integrated systems. Therefore, it is unclear as to whether their designs and results are scalable to small, medium-sized, and rural hospitals.

Two of these most recent programs merit further comment. The Medicare Acute Care Episode Demonstration is currently evaluating BP for several cardiac (coronary bypass, cardiac pacemakers) and orthopedic (knee and hip replacement surgeries) procedures. Participating organizations receive a single payment that covers Medicare hospital and physician services that are provided during the hospital stay [11,12]. In this demonstration program, physicians can earn extra payments amounting to up to 25% of regular Medicare fees by meeting specific benchmarks. A second successful initiative is the ProvenCare program developed by Geisenger Health System, a large, nonprofit integrated health system in Pennsylvania. This program provides a BP for all nonemergency coronal artery bypass graft procedures, including preoperative evaluation, all hospital and professional fees, and management of any complications (including readmissions) within 90 days after the procedure [8].

HEALTH CARE REFORM AND BUNDLED PAYMENTS

The Patient Protection and Affordable Care Act calls for the establishment of a national pilot BP program for Medicare beneficiaries. The purpose of the program is to improve the coordination, quality, and efficiency of services around hospitalization. On January 31, 2013, CMS initiated the voluntary Bundled Payments for Care Improvement (BPCI) initiative and announced the health care organizations selected to participate in BPCI [4]. The rationale behind the demonstration project is to test alternative payment models to the current FFS model in which Medicare makes separate payments to providers for each of the individual services needed to diagnose, manage, or treat a patient's single illness.

BPCI is composed of 4 broadly defined models of care that link payments for multiple services beneficiaries receive during an episode of care. Model 1 is focused on the acute care inpatient hospitalization. Models 2 and 3 are retrospective BP models in which actual expenditures are reconciled against a target price for an episode of care. Model 4 is a prospective BP arrangement, in which a single comprehensive payment is made to a provider for the entire episode of care [4].

Model 1

This plan retrospectively evaluates acute hospital stays only. The episode of care is defined as the inpatient stay in the acute care hospital. Medicare will pay the hospital a discounted amount based on the payment rates established under the inpatient prospective payment system (DRG) used in the original Medicare program. Medicare will continue to pay physicians separately for FFS under the Medicare Physician Fee Schedule. Under certain circumstances, hospitals and physicians will be permitted to share gains arising from the providers' care-redesign efforts [4].

Model 2

This plan retrospectively evaluates acute hospital stays but also includes postacute care. The episode of care will include the inpatient stay in the acute care hospital and all related services during the episode. Participants can select up to 48 different clinical episodes. The episode will end 30, 60, or 90 days after hospital discharge [4].

Model 3

This plan is focused on a retrospective evaluation of only postacute care. This differs from models 1 and 2 because no inpatient services are covered in this plan. The actual cost accrual will begin after inpatient discharge and initiation of postacute care services with a participating skilled nursing facility, inpatient rehabilitation facility, long-term care hospital, or home health agency. The postacute care services included in the episode must begin within 30 days of discharge from the inpatient stay and will end a minimum of 30, 60, or 90 days after the initiation of the episode. Participants can select up to 48 different clinical condition episodes [4].