

Economic factors in the future delivery of spinal healthcare

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Abstract

The current trajectory of healthcare-related spending in the United States is unsustainable. Currently, the predominant form of reimbursement is the form of a fee-for-service system in which surgeons are reimbursed for each discrete unit of care provided. This system does factor the cost, quality, or outcomes of service provided. For the purposes of cost containment, the bundled episode reimbursement has gained

popularity as a potential alternative to the current fee-for-service system. In the newer model, the spinal surgeon will become increasingly responsible for controlling costs. The bundled payment system will initially offer financial incentives to initiate a meaningful national transition from the fee-for-service model. The difficulty will be ensuring that the services of surgeons continue to be valued past this initiation period. However, greater financial responsibilities will be placed upon the individual surgeon in this new system. Over time, the evolving interests of hospital systems could result in the devaluation of the surgeons' services. Significant cooperation on behalf of all involved healthcare providers will be necessary to ensure that quality of care does not suffer while efforts for cost containment continue.

Key words: Affordable care act; Spine surgery; Economics; Future; Access; Payments; Reimbursement

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Core tip: Following the enactment and implementation of the patient protection and affordable care act, healthcare providers will witness significant changes in how payments are made for their services. In this editorial, the authors describe the potential benefits and the risks associated with a transition toward the bundled reimbursement system for patients and spine surgeons alike.

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EDITORIAL

During 2013, healthcare-related spending in the

United States grew by 3.6% accounting for \$2.7 trillion dollars and 17.3% of the gross domestic product (GDP)^[1]. It is widely accepted that the current trajectory of healthcare-related spending in the United States is unsustainable. However, less agreement exists regarding the optimal approach to improve its sustainability. The current fee-for-service payment system is cited as a potential source of escalating healthcare costs and wasteful spending^[2,3]. The Patient Protection and Affordable Care Act (2010) attempts to address this issue while improving the quality and access^[4]. Through provisions outlined in the law, direct endorsement by the president^[5], and several demonstration projects^[6,7], the bundled episode payment system has gained popularity as a means to contain healthcare-related costs.

There is a spectrum of potential financial models for health care reimbursement. At one extreme is the fee-for-service model, which is currently the predominant model in the United States. This model limits the financial risk for providers. Healthcare providers are reimbursed for each discrete component of care that they provide, regardless of cost, quality, or outcome. On the opposite end of the spectrum is the concept of global payments. This is a capitation model in which a single amount is allocated for each episode of care independent of the extent of health-related needs. This model exposes providers to a substantial amount of financial risk in which the spine surgeon could be paid incrementally less depending on the utilization of resources.

The concept of bundled episode payments exists on a financial spectrum between the fee-for-service and global payment systems. In the bundled episode payment model, reimbursements occur for an entire episode of care. This model is most applicable to procedures in which a predetermined reimbursement could potentially be disbursed for the care episode and for any ancillary services provided over a predetermined time period. In this model, a single payment is given to providers to divide among services and materials. This single payment is intended to cover physician fees, operating costs, the inpatient stay, physical therapy following discharge, and any costs associated with complications or readmissions to the hospital.

Reimbursement per care episode has been an entity in the healthcare system since the implementation of Medicare's diagnosis related groups (DRGs)^[8]. In this system, reimbursements are based upon admissions for specific diagnoses, such as congestive heart failure or diabetes. In addition, the model of a lump sum bundled payment for care has been present in Health Maintenance Organizations (HMO) for decades. However, "bundling" payments for a given procedure and all care received within a specific time period is a relatively new model that has gained significant traction in recent healthcare reform discussions.

The strongest theoretical advantage of the bundled payments is cost containment. The incentives of all providers are aligned to reduce costs in order to share in the potential savings. This reduces the incentive for wasteful use of medical resources, especially those that may not significantly improve patient care. Bundled payments place greater incentive for providers to control avoidable and costly complications during the postoperative period.

Critics would point out that a disadvantage of the bundled payment system is that hospitals and providers will unfairly select healthier patients or adjust indications of procedures in order to maximize profit. In addition, there are concerns that in an attempt to reduce costs, surgeons may favor cheaper, less technically complex procedures in replacement of more costly procedures that have demonstrated superior outcomes^[9].

At this time, there is significant momentum to establish bundled payments as the primary means of reimbursement, particularly for elective procedures with well-defined outcomes and consistent involvement of particular ancillary services. This is especially attractive for common, elective orthopedic and spine procedures. Many institutions anticipate moving to this reimbursement method. As such, much effort is being placed on research regarding the cost and financial variability that occurs within them^[10].

The financial implications of bundled payments for surgeons are significant. For example, surgeons would clearly take on greater financial risk. Such risk has two components. The first is probability risk, which refers to random events that occur as a result of uncontrollable external and genetic factors related to the patient^[10]. The second is technical risk, which refers to risk that is a direct consequence of the intervention and care during the episode^[10]. These risks include postoperative complications, urinary tract infections, and readmissions. In an ideal system, any penalties to providers should relate to technical risk; however, the distinction between technical risk and probability risk is not always defined. For instance, the impact of factors such as patient non-adherence to medical and therapeutic regimens, preoperative illness severity, and poor patient lifestyle choices is hard to dichotomize clearly into either of the two classifications. The providers will inevitably take on at least a proportion of this risk as it is not only difficult to clearly define them, but would be administratively unfeasible to do so.

The increased financial risk undertaken by surgeons will need to be offset with the potential for larger financial gains. In order to protect providers, a proper risk corridor must be established. A risk corridor limits the profits and losses above or below a given percentage from the net neutral position^[11]. By defining the range of profits and losses, surgeons are protected from catastrophic financial losses while any

exuberant gains are limited.

In the context of the increasing demand for cost control in spine surgery, recent trends have emerged. One such trend is the movement towards performing surgery in ambulatory surgery centers (ASC). ASCs aim to avoid the expensive costs of hospitalization, which have historically been one of the largest contributors to the total cost of a care episode^[12]. The shift towards ASCs increases the predictability of the related costs while reducing the potential of developing costly complications during a hospital admission. With recent advances in outpatient anesthesia and pain management protocols, avoiding hospitalization following spine surgery is becoming increasingly feasible for selected procedures. However, potential complications of spine surgery will require this paradigm shift to proceed cautiously as to not compromise patient care solely based upon the idea of cost containment.

In addition, criticism regarding the use of implants and biologics may increase as their utilization have been the source of increasing costs^[7]. There will be more discretion regarding the use of newer, more costly designs that may only benefit marginally over traditional options. Procedures such as a simple decompression for stable degenerative conditions may also gain popularity in place of a more costly fusion procedure if the reimbursements within the bundled payment for both types of procedures are comparable.

The specifics of when the changes to the healthcare system will occur and how they will impact surgeons' practices remain unclear. However, the fact that the healthcare system is changing has never been more certain. All surgeons should anticipate these changes and be active participants in the discussion in order to properly advocate what is best for their patients and their respective specialties. The shift in payment systems should be a beckoning call for surgeons to unite their interests in order to clearly establish the value of their services to the hospital and the society at-large.

The bundled payments system could shift the physician fees and salaries onto the institution. In an effort to better predict costs, hospitals will come under pressure to hire salaried surgeons. In such a system, hospital administrators will determine the salary of the surgeon. This may ultimately appraise the value of the surgeons' services within the episode of care. As such, reimbursement to physicians will be strongly correlated with the price at which the hospital is reimbursed for the bundled care episode. As the financial uncertainty of the national health care system continues, decreasing bundle prices will be an appealing way to cut costs on national health spending. This cost cutting measure may prompt administrators to react by reducing payments to surgeons, especially once costs related to postoperative care have reached economies of scale in which additional incremental savings may no longer be attainable.

In conclusion, surgeons have the potential to gain financially in the short-term by participating in the bundled payment system. This system will initially require tempting financial incentives in order for the country to initiate a meaningful national transition from fee-for-service. The difficulty will be insuring that the services of surgeons continue to be valued past this undetermined period. It appears possible that greater financial risk burden will be placed upon the individual surgeon in this new system. Over time, physicians may be placed in increasingly vulnerable positions in which the desires of the hospital systems result in devaluing of the services provided by the surgeon. Significant cooperation on behalf of all involved healthcare providers will be necessary to ensure that quality of care does not suffer while efforts for cost containment continue.

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