North Carolina Orthopaedic Association

2015 Annual Meeting

Abstracts: Opening Session

October 9-11, 2015 • Kiawah Island Golf Resort

Kiawah Island, South Carolina

This continuing medical education activity is jointly provided by the NCOA and the Southern Regional Area Health Education Center

North Carolina Orthopaedic Association 2015 Annual Meeting

Lecture Abstract

Speaker: **David Teuscher, MD**
Beaumont Bone & Joint Institute; American Academy of Orthopaedic Surgeons, Beaumont, TX

Topic: **AAOS Address**
Saturday, October 10

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Lecture Abstract

Speaker: **Connie Wilson**
Connie Wilson Consulting, Raleigh, NC

Topic: **Legislative Update**
Saturday, October 10

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Lecture Abstract

Speaker: **L. Andrew Koman, MD**
Wake Forest School of Medicine, Winston-Salem, NC

Topic: **ICD-10: Our Current Reality**
Saturday, October 10

ICD-10 mandated for use on October 1, 2015 has increased the numbers and complexity of diagnostic coding tenfold. An analysis of ICD-10 was performed and categories to facilitate its use are described.

Educational Objective: Provide an overview of diagnostic coding.

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Lecture Abstract

Speaker: **Carter Clement, MD, MBA (Resident)**
University of North Carolina, Chapel Hill, NC

Topic: **How Will Financial Incentives to Provide THA & TKA for High-risk Patients Change with Bundled Payments?**
Saturday, October 10

Background

Bundled payments are a form of reimbursement involving a pre-specified lump sum payment for an episode of care, to be divided between hospitals, physicians and other providers on their own terms. This payment form is meant to reduce the high levels of spending associated with fee-for-service reimbursement and the impetus to withhold care associated with capitation. The Center for Medicare and Medicaid Services (CMS) has begun experimentation with bundled payments, including pilot programs in the Medicare population. Total joint replacement has become an early target for bundled payments, and this reimbursement form is likely to spread throughout the field of orthopedics. Currently, Medicare reimbursements are based largely on a patient's Medicare Severity-Diagnosis Related Group (MS-DRG) Weight, which accounts for patient complexity by allotting greater payments for patients with higher levels of comorbidities or complications. In most bundled payment programs, reimbursement involves a set "flat rate" payment for a given procedure, potentially creating an incentive for "cherry picking" as providers will be likely to earn a greater contribution margin by treating healthier (i.e. less expensive) patients.

Purpose

The purpose of this research effort is to examine how the financial incentives for providing total hip arthroplasty (THA) and total knee arthroplasty (TKA) for relatively complex Medicare patients would be likely to change with the advent of bundled payments.

Methods

All patients of Medicare-eligible age (65+) undergoing THA or TKA at an urban academic center over 24 months were included (562 THA's and 941 TKA's). THA and TKA patients were considered separately. Expected Medicare reimbursement to the hospital was calculated for each patient in accordance with CMS policy. Variable cost (the running tab of all marginal costs attributable to a patient's care) was derived from the hospital's cost accounting system for each patient. Contribution margin, which reflects an organization's financial incentives, was calculated as reimbursement less variable cost. This financial data was used to model a hypothetical bundled payment program in which the hospital covers all costs of care during the arthroplasty admission and for 30 days after discharge (a common scenario among existing bundled payment programs). Differences in margin under bundled payments were calculated as differences in variable cost, assuming equal reimbursement under a flat-rate bundling scheme. Patients were compared under the current reimbursement system and the hypothetical bundled payment program by complexity based on MS-DRG Weight using a natural division in the study sample as the vast majority of observed weights were ≤ 2.1 or ≥ 3.3.

Results

In the current reimbursement environment, THA and TKA patients with MS-DRG Weight ≥ 3.3 are more expensive to care for ($P<0.01$), better reimbursed ($P<0.01$) and earn higher contribution margins by \$3,938 ($P=0.02$) and \$3,793 ($P<0.01$), respectively. Under bundled payments, THA patients with MS-DRG Weight ≥ 3.3 would earn a contribution margin \$3,974 less than patients with lower MS-DRG Weights ($P<0.01$), and TKA patients with MS-DRG Weight ≥ 3.3 would earn a contribution margin \$1,504 less than patients with lower MS-DRG Weights ($P<0.01$).

Discussion

Sicker patients place a greater financial strain on hospitals. Current Medicare reimbursement, which is partially based on patient complexity, compensates hospitals for that strain and actually creates a statistically significant financial incentive to provide THA and TKA for relatively complex patients. If our results are generalizable, a transition to flat-rate bundled payments would create a large incentive against providing total joint arthroplasty for relatively complex patients, which could create a barrier to care for patients and inequity for providers. CMS and other payers must carefully design bundled payments and other future reimbursement schemes with rigorous risk adjustment to avoid creating this type of adverse incentive.

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Lecture Abstract

Speaker: **Thomas Parker Vail, MD**
University of California - San Francisco, San Francisco, CA

Topic: **Presidential Address: The Treatment of Knee Arthritis in the Future: Payers, Platelets, Partials, and PRO's**
Saturday, October 10