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The Spine Journal 15 (2015) 2404–2409

THE SPINE JOURNAL

Clinical Study

Patient impressions of reimbursement for orthopedic spine surgeons

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Received 17 July 2013; revised 21 November 2013; accepted 29 January 2014

Abstract The study aim was to understand patient impressions of reimbursement to orthopedic spine surgeons. Our findings revealed that the majority of patients significantly overestimate the amount surgeons are reimbursed per procedure. Despite this, most feel that surgeons are appropriately compensated. Additionally, many patients are unaware of the global billing period.

Keywords: Orthopaedic surgeon; Physician reimbursement; Surgeon salaries; Health care costs; Spine surgeons; Medicare

Introduction

Despite spending the most per capita on health care compared with other industrialized nations, the United States has not achieved a concurrent superiority in health care provision and outcomes. In 2007, the World Health Organization looked at 191 nations and ranked the US health care system 72nd in overall performance and 37th in overall health [1]. Furthermore, the cost of health care in the United States is only projected to increase, from 15.3% of gross domestic product in 2002 to 19.6% in 2017 [2]. Because our present health care system is a considerable force affecting the economic balance of the US budget, it has been a frontrunner in sociopolitical issues for the past 20 years.

Many components are driving up the costs of health care, making the solution complex and far from being attained. One factor that is tangible and therefore relatively easy to reform is physician reimbursement. In the early 1990s, Medicare transitioned from a physician charge-based payment system to a resource-based relative value system that was effective in driving down payments to physicians, but flawed because it does not factor in the value of services to the consumer (ie, the patient) [3]. The American Academy of Orthopaedic Surgeons has also stated its concerns about the projected 29% cut in the Medicare conversion factor required by the existing sustainable growth rate formula mandated by Congress [4]. This apprehension is warranted because there has already been a 28% reduction in reimbursement, after inflation, for the most frequently used orthopedic surgeries between 1991 and 2002 [3].

Despite the implemented changes to physician reimbursement mandated by Medicare, less than 5% of orthopedic surgeons deny Medicare patients [5], perhaps because reducing Medicare patients would not necessarily alter the reimbursement to individual physicians on a grand scale. A survey of 33 health plans in 2003 found that most plans were influenced by the Medicare payment system and nearly 40% used the same relative value unit system as Medicare [6].

FDA device/drug status: Not applicable.

Author disclosures: ***KLW:*** Nothing to disclose. ***MMG:*** Grants: University of Michigan Resident Research Grant (C). ***JJG:*** Nothing to disclose. ***JSF:*** Royalties: Stryker (D); Stock Ownership: Trans1; Consulting: Stryker (F), Relievant (F), Trans1 (D), Smith & Nephew (B), Medtronic (B); Board of Directors: Trans1 (C). ***GPG:*** Consulting: Medtronic Sofamor Danek (Unpaid consultant); Board of directors: Mid-America Board of Directors (Unpaid); Scientific Advisory Board/-Other Office: MAOA Chair, Finance Comm; AOA Finance Comm; AAOS Board of Councilors (Unpaid). ***RDP:*** Speaking/Teaching Arrangements: Stryker.

The disclosure key can be found on the Table of Contents and at www.TheSpineJournalOnline.com.

IRB approval or exemption: University of Michigan.

Potential conflicts of interest: None.

External support: None.

NIH, HHMI, Wellcome funding: None.

Copyrighted materials: None.

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1529-9430/$ - see front matter
http://dx.doi.org/10.1016/j.spinee.2014.01.060

Given that Medicare spending and therefore nearly all insurance reimbursements to surgeons are based on medically derived data and Congressionally mandated goals in budget maintenance, it is important to explore patient views of surgeon reimbursement, as they have not recently been considered. Few studies have investigated the patient knowledge of surgeon reimbursement and opinion of the appropriateness of this compensation. This study focused on the patient understanding and impressions of the reimbursements received by orthopedic spine surgeons for their services. We believed our findings would refute the null hypothesis and reveal that patients do not understand the global billing period and would overestimate how much orthopedic spine surgeons are reimbursed per surgery.

Methods

Survey development

The concept of this cross-sectional survey study was formulated between two of the article's authors (RDP and MMG). These two authors developed the survey questions through discussion of the study objectives and searches of PubMed for similar studies. No published research in the orthopedic or spine surgical literature was found, but two studies in the realm of general surgery and urology provided a platform for study design [7–9]. The objective of this survey was to determine the patient understanding of orthopedic spine surgeon reimbursement. We believed patients would overestimate reimbursement and would not be aware of the global billing period. The questions asked in the survey included the type of insurance and surgery the patient had and the amount the patient thought his or her spine surgeon was reimbursed for the procedure. Other questions comprised patient knowledge of the global billing period and the annual salaries of spine surgeons and whether these salaries were appropriate. Several other questions regarding patient impressions of compensation and demographics were asked as well. A copy of the survey is included (Appendix A). No pilot test was performed, nor was a sample size collection done.

Participants

After receiving the approval of our institutional review board, a voluntary 12-question survey was mailed with an anonymous return envelope to orthopedic postoperative patients who underwent a spine procedure between April 1, 2010 and April 1, 2011 at a public academic institution and a private institution, both serving large catchment areas. The survey was administered by the researchers directly, rather than a third party, after similar recently published surveys [7–9]. On the basis of Current Procedural Terminology codes and case logs from three of the authors (RDP, GPG, JJG), patients were selected to receive a survey if they underwent any of the following orthopedic spine surgeries 3 to 6 months earlier: kyphoplasty, discectomy, laminectomy with or without fusion, cervical fusion, and lumbar fusion. At this postoperative time, patients would have recently received their hospital bill and been familiar with their hospitalization expenses. The selection was based on the surgery performed and thus included emergent and nonemergent cases. Surveys included a cover letter describing the survey as voluntary and anonymous.

Data management

Data retrieved from the surveys were compared with the findings of the 2007 Medical Group Management Association (MGMA) physician compensation and production survey and the reimbursement schedules received by the hospitals surveyed from Medicare and Blue Cross and Blue Shield (BCBS) [10]. The data were then uploaded into Survey Monkey, an online survey tool that was used to organize the survey results. Figures and tables used to depict results were created in Excel (Microsoft, Redmond, WA, USA) software.

Statistical analysis

Statistical significance was evaluated using chi-square analysis on the R Project for Statistical Computing software (R Foundation for Statistical Computing, http://www.r-project.org/). A p value of $<.05$ was considered statistically significant. Statistical analysis was performed on the estimates of annual salary and reimbursement amount for the actual surgery performed on patients surveyed. Because the MGMA physician compensation and production survey reported data using brackets based on standard deviation, we applied categorical instead of continuous data statistical methods. It was also decided to have patients answer questions about reimbursement in a categorical fashion because we believed a continuous response estimate would have considerable variability and would be complex to analyze.

Results

Of the 385 surveys sent out, 103 were completed and returned. Most patients were between 31 and 60 years old. A private network (PPO) insured 33.0% of patients, and Medicare covered 23.3% (Table 1). The most common spinal procedure was a lumbar spinal fusion (34.3% of respondents), followed by cervical spinal fusion (23.9%) and laminectomy with fusion (17.9%). Nine percent of respondents had a laminectomy without fusion performed, and kyphoplasty and discectomy together comprised 12% of the respondent population. Simply put, 76% of patients underwent a major procedure (cervical fusion, lumbar fusion, or laminectomy with fusion), whereas 24% underwent minor procedures (kyphoplasty, discectomy, or laminectomy without fusion). Demographic data are summarized in Table 1.