Large Variation in Listed Chargemaster Price for Total Joint Arthroplasty Among Top Orthopaedic Hospitals in the United States
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INTRODUCTION:
Orthopaedic care is highly utilized in the United States, accounting for over 30 million office visits, and 9.5 office visits per 100 persons in 2016. This orthopaedic care is costly, with orthopaedic surgeons collecting an estimated three billion dollars in 2018 from Medicare alone. Given the high prices charged for health care and the complex payor mix that exists in the United States, the true cost of a medical procedure is often unknown until after the service has been performed and the patient receives their bill.
Price transparency in health care has been a popular topic in the United States for decades in an attempt to alleviate this financial uncertainty and burden for patients. However, as negotiations between insurers and healthcare systems are often kept private, it may be difficult to accurately inform patients regarding accurate medical procedure pricing. Although there are many considerations when discussing the issue of healthcare transparency, the benefit of increased transparency for patients remains clear; increased price transparency allows patients to budget for medical expenses, apply for financial aid at ideal times in the treatment course, and make maximally informed decisions about their medical treatment. As our aging population continues to increasingly utilize elective services, price transparency will be increasingly important to inform patient decision making and drive competition and cost containment within the elective services healthcare market.
In 2018, the Centers for Medicare & Medicaid Services (CMS) released a rule to improve the price transparency of medical treatment by requiring all hospitals to publicly publish healthcare pricing information in a “chargemaster” by January 2019. A chargemaster is a list of the standard pricing information for all hospital services, including common procedures like total joint replacement. This rule attempted to increase price transparency for healthcare consumers (i.e., the patient), and ultimately to create a market force that would decrease costs. This method of publishing public price information for patients, however, has been criticized for offering inaccurate, and potentially misleading, information regarding the true cost of medical care.
Given the large volume of elective total joint arthroplasty procedures performed in the United States, and the importance of healthcare transparency for patients, we sought to investigate the potential variability of chargemaster data for arthroplasty in the United States. Therefore, the purpose of this study is to assess the price variation of Medicare Severity-Diagnosis Related Group (MS-DRG) codes for hip and knee arthroplasty procedures using chargemaster price listings.
METHODS:
In May 2020, the chargemaster data for highly rated orthopaedic hospitals was accessed and the diagnostic related group (DRG) codes related to primary and revision total joint arthroplasty were analyzed (DRGs 466, 467, 468, 469, and 470). Chargemaster pricing data was averaged across all the included hospitals and descriptive statistics were calculated for each DRG code, including median, mean, and standard deviations. Further, the Medicare reimbursement to all included hospitals for all admissions for each DRG in 2018 was collected from the 2018 Inpatient Utilization and Payment Public Use File. A subanalysis was performed to determine correlations between chargemaster pricing data and median income or cost of living in each hospital’s respective location, as well as the mean Medicare hospital reimbursement across each procedure type.
RESULTS:
The median price for a revision hip or knee replacement with major complication or comorbidity (DRG 466) was $221,927 (range: $107,582 to $472,517; standard deviation: $107,919). The median price for revision of hip or knee replacement with minor complication or comorbidity (DRG 467) was $117,290 (range: $68,818 to $317,806; standard deviation: $80,118). The median price of a revision of hip or knee replacement without complications or comorbidity (DRG 468) was $90,966 (range: $58,967 to $247,715; standard deviation: $63,255). The median price for a primary hip or knee replacement with major complication or comorbidity (DRG 469) was $128,290 (range: $74,588 to $324,985; standard deviation: $79,794). The median price for a primary hip or knee joint replacement without complications or comorbidity (DRG 470) was $68,016 (range: $39,927 to $195,264; standard deviation: $49,745). The difference factor between 10th and 90th percentile costs were for DRG 466 (3.2), 467 (3.6), 468 (3.6), 469 (3.6), and 470 (3.8).
DISCUSSION AND CONCLUSION:
The published cost of DRG codes in arthroplasty are widely variable among the top 20 US orthopaedic hospitals, with the same procedure varying in costs by hundreds of thousands of dollars between hospitals of similar quality, with little correlation to Medicare reimbursement, cost of living, or median income of the location of the hospital. Further analysis is needed to understand how hospitals determine chargemaster costs, and how these costs correlate to actual out of pocket...
cost. Policy makers should be aware of these trends as we attempt to increase healthcare transparency in the United States and assess the utility of chargemasters as a method to improve transparency.