

# Price Transparency and Value in Total Joint Arthroplasty: An Analysis of Negotiated Charges Among Top Orthopedic Hospitals

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## INTRODUCTION:

The Centers for Medicare and Medicaid Services (CMS) implemented a Hospital Price Transparency mandate in January of 2021 requiring hospitals in the United States to publish accessible pricing information online. The goal of this initiative is to assist patients in becoming more informed about healthcare services and their associated costs. It is particularly important for patients to feel empowered about their health and have access to robust information necessary to make informed health decisions about high-cost procedures that are elective and common, such as total joint arthroplasty (TJA). This study aims to evaluate the relationship between the standard hospital charges for Major Hip and Knee Joint Replacement and the quality of care provided by the top performing orthopedic hospitals in the United States to better understand value of TJA in this cohort.

## METHODS:

A list of the top 50 ranked orthopedic hospitals in the USA was compiled using the U.S. News and World Report in 2024. The US News and World Report was selected as the ranking methodology because the rankings are widely read and methods are relatively transparent compared to other ranking systems. We performed an online search of facility websites to gain information about price transparency, including negotiated price for MS DRG 470 admissions with commercial insurance plans. We identified whether a machine-readable file of standard charges was made available on the hospital's website. If there was a machine-readable file available, a list of all negotiated charges associated with DRG 470 were collected for each commercial insurance plan. These were averaged for each hospital and adjusted for cost of living using the AdvisorSmith cost of living index. Descriptive statistics were calculated to compare quality and standard negotiated charges.

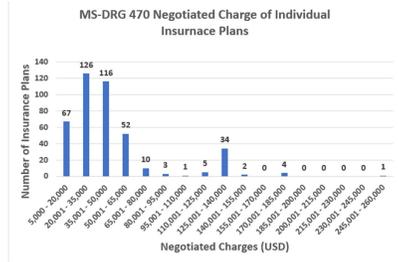
## RESULTS:

Twenty-nine of the top 50 (58%) orthopedic hospitals contained publicly available information about negotiated prices for MS DRG 470, and were therefore included in this analysis. Scores among these top hospitals ranged from 60.7 (UT Southwestern Medical Center, Dallas, TX) to 100 (Hospital for Special Surgery, New York, NY) (Table 1). The standard charges for DRG 470 among all hospitals were not normally distributed (Figure 1). The negotiated charges ranged from \$7,500.00 to \$312,256.00 unadjusted and \$5,506.61 to \$259,564.36 when adjusted for cost of living. The mean adjusted charge was \$46,200.56 (SD = \$34,615) and median adjusted charge was \$36,341.90. Santa Monica – University of California Los Angeles Medical Center and Orthopedic Hospital had the lowest reported mean adjusted charge at \$16,436.80 and University of California - Davis Medical Center had the highest mean charge at \$100,108.51. University of California - Davis Medical Center also had the largest range of charges among different insurance plans (\$21,743.97 - \$259,564.36). There was not a correlation between the hospital's assigned quality score and their average adjusted charge for procedures coded as MS-DRG 470 ( $r = 0.199$ ; Figure 2).

## DISCUSSION AND CONCLUSION:

The value and quality of healthcare services is a topic that has garnered much attention in the medical field. Price transparency is important in helping patients make health decisions. Although CMS mandates all institutions to have shoppable and user-friendly data available, it is still not uniformly available among top orthopedic hospitals.

There are a wide range of negotiated charges for MS-DRG 470 even when adjusted for cost of living. However, differences in terms of the quality of care and outcomes between hospitals are small. In light of the relatively small differences in value observed in this study, future ranking metrics should consider factoring in cost, price transparency and value for elective surgical procedures.



Hospital	Score	Mean Unadjusted Charge	Cost of Living Index	Mean Adjusted Charge	Value
UW Southwestern Medical Center	60.7	44,787.7 (7,851.4)	98.5	45,439.3 (7,768.16)	0.134
UF Health Shands Hospital	61.1	24,989.4 (8,342.7)	97.3	25,611.97 (8,574.15)	0.238
Endless Health NorthShore Hospital	61.6	25,137.2 (7,537.2)	100.1	25,137.2 (7,537.2)	0.249
Providence Saint John's Health Center	62.2	40,146.6 (1,544.1)	140.6	28,568 (1,096.24)	0.218
Advocate Good Shepherd Hospital	62.5	23,799.7 (8,497.0)	100.1	23,775.96 (8,488.48)	0.263
UC Davis Medical Center	62.5	120,480.5	120.3	100,108.51	0.062
Mayo Clinic - Florida	63	28,473.9 (3,126.9)	132.6	28,761.54 (1,138.30)	0.219
Advocate Lutheran General Hospital	64	31,456.9 (8,933.3)	100.1	31,359.07 (8,715.34)	0.204
UW Health University Hospital	64	31,267.5 (8,575.8)	99.5	31,414.56 (9,618.91)	0.204
Hoag Orthopedic Institute	66.9	85,111.1 (22,408.8)	140.6	25,001.08 (1,907.96)	0.264
Scottsdale Hospital	66.9	33,020.2 (8,972.4)	135.2	38,911.88 (1,477.61)	0.170
Johns Hopkins Hospital	66.9	43,660.7 (16,406.7)	107	40,811.84 (15,333.38)	0.164
Duke University Hospital	67.3	27,650.00	99.8	27,710.42	0.243
Long Island Jewish Medical Center at Northwell Health	68	51,986.5 (14,599.1)	128	41,395.73 (11,495.56)	0.164
Hennepin Methodist Hospital	68.7	45,853.4 (8,171.9)	94.4	48,706.64 (1,588.68)	0.096
Corewell Health William Beaumont University Hospital	68.5	25,832.3 (4,999.5)	93.2	27,717.09 (5,364.26)	0.247
Lehigh Valley Hospital - Cedar Crest	68.5	26,232.2 (10,183.9)	98.9	26,523.92 (10,297.19)	0.258
Rothman Orthopedic at Thomas Jefferson University Hospitals	68.5	35,900.1 (14,088.2)	103.4	34,719.63 (13,624.93)	0.197
Mayo Clinic - Arizona	68.4	18,247.20	99	18,461.88	0.176
Quest Medical Center	69.6	27,173.8 (2,022.6)	158	17,586.61 (1,280.13)	0.205
Hospitals of UPenn Presbyterian	73	33,366.3 (10,653.8)	103.4	32,269.12 (10,303.48)	0.226
Brigham and Women's Hospital	73.8	55,558.0 (22,537.4)	132.6	41,896.66 (16,996.70)	0.176
Massachusetts General Hospital	73.8	43,003.1 (13,901.7)	104.3	32,480.66 (10,483.92)	0.228
Santa Monica - UCLA Medical Center and Orthopedic Hospital	76.3	23,100.1 (4,951.3)	140.6	16,496.80 (3,521.52)	0.464
North Shore University Hospital at Northwell Health	79.4	51,094.8 (14,894.1)	128	41,472.53 (11,636.02)	0.191
Stanford Health Care	80.5	17,640.7 (8,398.6)	175.5	21,205.90 (11,115.97)	0.171
Cedars-Sinai Medical Center	87	26,900.4 (13,110.1)	140.6	33,707.96 (8,897.72)	0.261
NYU Langone Orthopedic Hospital	88.9	117,875.7 (54,484.2)	128	91,934.15 (46,690.78)	0.097
Hospital for Special Surgery	100	61,008.9 (8,501.6)	128	47,663.17 (6,641.84)	0.210