

# Less than One-Third of Hospitals Provide Compliant Price Transparency Information for Total Joint Arthroplasty Procedures

Robert John Burkhart, Christian Joseph Hecht, Alexander Joseph Acuña, Atul F Kamath<sup>1</sup>

<sup>1</sup>Cleveland Clinic

## INTRODUCTION:

The Centers for Medicare and Medicaid Services (CMS) recently implemented price transparency legislation. As total joint arthroplasty (TJA) procedures are widely used, expensive, and generally are predictable in terms of cost and expected outcomes, these procedures are a proxy for assessing how hospitals provide price transparency for their services as a whole. Also, cost estimates for TJA procedures represent some of the most commonly sought-after price transparency information among the orthopaedic surgery patient population. We asked: 1) Are hospitals compliant with federal rules mandating price transparency for primary TJA? 2) Are hospitals providing this data in a user-friendly format? 3) Is there a difference in prices quoted based on CPT codes compared with DRG codes?

## METHODS:

Our cross-sectional retrospective analysis used the CMS's Hospital Compare database. This database includes information for 5,326 Medicare hospitals nationally. We excluded children's, psychiatric, Veterans Affairs, and active military base hospitals as well as hospitals performing fewer than 100 TJAs annually. A total of 1,719 hospitals remained after this selection process. Random sampling stratified across practice setting, hospital size, TJA volume, type, ownership, and Census region was performed to identify 400 facilities for our final analysis (**Figure 1**). Included hospitals were located predominately in urban areas (79%) and were mostly medium (43%) in size. Most were classified as acute care (98%) versus critical access (**Table 1**). Three reviewers thoroughly searched each hospital website for a machine-readable file providing the following five datapoints: gross charges, payer-specific negotiated charges, deidentified minimum negotiated charges, deidentified maximum negotiated charges, and discounted cash prices. Hospitals that provided all five datapoints through a machine-readable file were considered compliant. Additionally, we considered hospitals with any gross price information pseudocompliant. Consumer-friendliness was assessed based on the following criteria: 1) languages other than English were offered, 2) it took <15 minutes to locate pricing information, 3) a phone number or email address was provided for questions, and 4) there was a description of procedure in common terms. Pricing information was recorded and compared for CPT codes 27447 and 27130 and DRG codes 469 and 470. Data was sourced from December 1-20, 2021, to assess compliance in the first year since the legislation was implemented.

## RESULTS:

Only 32% of the sampled hospital websites were compliant with all requirements under the CMS rule for transparency in pricing. When segregating by individual procedures, 21%, 18%, 18%, and 19% hospitals provided CMS-compliant pricing information for CPT codes 27447 and 27130, and DRG codes 469 and 470, respectively. For each code, rates of pseudocompliance were 36%, 31%, 34%, 50%, for the included codes, respectively (**Figure 2**). Most included hospitals provided at least some of their pricing data in a user-friendly format (**Table 2**). Prices quoted using a DRG search were higher overall than prices quoted using a procedure-specific CPT code (**Figure 3**).

## DISCUSSION AND CONCLUSION:

Although the CMS implemented a price transparency mandate at the beginning of 2021, our analysis demonstrated that most hospitals either do not provide TJA price estimates or are noncompliant when presenting related information. Specifically, approximately half of evaluated hospitals provided a gross charge for any TJA code and less than one-third were fully compliant with all CMS mandates. Given the influence compliance and price sharing may have on empowering patients' healthcare decisions and reducing healthcare expenditures, hospitals should use our analysis to identify where their compliance is lacking and to make their pricing information more readily available to their patients. As well as ensuring all six CMS mandates are met, this includes providing information in easy-to-understand formats and making related services identifiable across all levels of health literacy. Furthermore, we advocate for the use of CPT codes and layman terms when identifying provided services as well as a price estimator tool that allows for the download of a machine-readable file specific to the procedure of interest.

Figure 1. The hospital selection process for the study to derive the Streptococcus Grouping of Observed Orders in Epidemiology (GROUPED) Algorithm

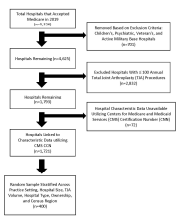


Figure 2. Proportion of Hospital Compliance with CDR-RR



Figure 3. Extended pricing information for CPT and DRG codes related to total joint arthroplasty

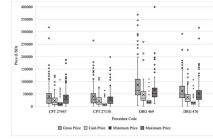


Table 3. Characteristics of patients for the study

Characteristic	Number of Patients (n)	Percentage (%)
Female	5000	50.0
Male	5000	50.0
Age (years)	65.0	65.0
Insurance	5000	100.0
Medicare	3000	60.0
Medicaid	1000	20.0
Private	1000	20.0
Other	0	0.0
Comorbidity	5000	100.0
Diabetes	1000	20.0
Hypertension	2000	40.0
Cholesterol	1000	20.0
Obesity	1000	20.0
Smoking	1000	20.0
Alcohol	1000	20.0
Other	0	0.0
Procedure	5000	100.0
Total Joint Arthroplasty	5000	100.0
Other	0	0.0

Table 4. List of Codes / Characteristics for DRG sampled hospital website

Code	Description
41000	Major joint replacement
41001	Major joint replacement
41002	Major joint replacement
41003	Major joint replacement
41004	Major joint replacement
41005	Major joint replacement
41006	Major joint replacement
41007	Major joint replacement
41008	Major joint replacement
41009	Major joint replacement
41010	Major joint replacement
41011	Major joint replacement
41012	Major joint replacement
41013	Major joint replacement
41014	Major joint replacement
41015	Major joint replacement
41016	Major joint replacement
41017	Major joint replacement
41018	Major joint replacement
41019	Major joint replacement
41020	Major joint replacement
41021	Major joint replacement
41022	Major joint replacement
41023	Major joint replacement
41024	Major joint replacement
41025	Major joint replacement
41026	Major joint replacement
41027	Major joint replacement
41028	Major joint replacement
41029	Major joint replacement
41030	Major joint replacement
41031	Major joint replacement
41032	Major joint replacement
41033	Major joint replacement
41034	Major joint replacement
41035	Major joint replacement
41036	Major joint replacement
41037	Major joint replacement
41038	Major joint replacement
41039	Major joint replacement
41040	Major joint replacement
41041	Major joint replacement
41042	Major joint replacement
41043	Major joint replacement
41044	Major joint replacement
41045	Major joint replacement
41046	Major joint replacement
41047	Major joint replacement
41048	Major joint replacement
41049	Major joint replacement
41050	Major joint replacement
41051	Major joint replacement
41052	Major joint replacement
41053	Major joint replacement
41054	Major joint replacement
41055	Major joint replacement
41056	Major joint replacement
41057	Major joint replacement
41058	Major joint replacement
41059	Major joint replacement
41060	Major joint replacement
41061	Major joint replacement
41062	Major joint replacement
41063	Major joint replacement
41064	Major joint replacement
41065	Major joint replacement
41066	Major joint replacement
41067	Major joint replacement
41068	Major joint replacement
41069	Major joint replacement
41070	Major joint replacement
41071	Major joint replacement
41072	Major joint replacement
41073	Major joint replacement
41074	Major joint replacement
41075	Major joint replacement
41076	Major joint replacement
41077	Major joint replacement
41078	Major joint replacement
41079	Major joint replacement
41080	Major joint replacement
41081	Major joint replacement
41082	Major joint replacement
41083	Major joint replacement
41084	Major joint replacement
41085	Major joint replacement
41086	Major joint replacement
41087	Major joint replacement
41088	Major joint replacement
41089	Major joint replacement
41090	Major joint replacement
41091	Major joint replacement
41092	Major joint replacement
41093	Major joint replacement
41094	Major joint replacement
41095	Major joint replacement
41096	Major joint replacement
41097	Major joint replacement
41098	Major joint replacement
41099	Major joint replacement
41100	Major joint replacement