

# Regional Heterogeneity and Poor Compliance with MS-DRG Price Transparency Reporting for Cervical Spinal Fusion Among the Top 100 U.S. Hospitals for Orthopaedic Surgery

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**INTRODUCTION:** The Centers for Medicare & Medicaid Services mandates that hospitals provide a machine-readable chargemaster that lists standard charges of all items and services, paired with a DRG, CPT or other common payer identifier. Since the form of payer identifiers is not regulated, significant heterogeneity exists in the presentation of charge data. Furthermore, while certain identifiers may aid in hospital accounting, they may not add value to the consumer. The Medicare Severity-Diagnosis Related Group (MS-DRG) identifier provides overall cost information for many diagnoses and procedures, which confers benefit to patients who seek price transparency. In this study, we examined the rate at which the top 100 hospitals for orthopaedic surgery reported chargemaster data and the rate at which MS-DRG data for cervical spinal fusion was presented.

## METHODS:

U.S. News & World Report 2021-2022 top hospital rankings was queried to identify the top 100 hospitals for orthopaedic surgery. Each hospital's chargemaster data was evaluated for inclusion of MS-DRG codes 471 (cervical spinal fusion with major complication or comorbidity [MCC]), 472 (cervical spinal fusion with complication or comorbidity [CC]), and 473 (cervical spinal fusion without MCC/CC). The associated standard charges were further characterized as reported in gross standard (GSC), insurance negotiated (IC), or variable (VC, values dependent on operative time or length of stay) charges. This characterization was additionally analyzed in the Midwest, Northeast, Southeast, Southwest, and West regions of the United States to examine regional differences.

## RESULTS:

98 of the 100 hospitals had a machine-readable chargemaster. 24 hospitals were excluded due to technical difficulties with file type or size. Of the remaining 74, 39 hospitals included identifiers for MS-DRG 471 (cervical spinal fusion with major complication or comorbidity [MCC]). Of these 39 hospitals, 28 listed GSC (71.8%), 7 listed IC (17.9%), and 4 listed VC (10.3%). Mean GSC for MS-DRG 471 was \$217,633.85. These charges ranged from \$20,895.94 to \$674,716.00. 45 hospitals included identifiers for MS-DRG 472 (cervical spinal fusion with complication or comorbidity [CC]). Of these 45 hospitals, 31 listed GSC (68.9%), 7 listed IC (15.6%), and 7 listed VC (15.6%). Mean GSC for MS-DRG 472 was \$125,019.79. These charges ranged from \$17,326.91 to \$350,183.00. 47 hospitals included identifiers for MS-DRG 473 (cervical spinal fusion without MCC/CC). Of these 47 hospitals, 35 listed GSC (74.5%), 6 listed IC (12.8%), and 6 listed VC (12.8%). Mean GSC for MS-DRG 473 was \$94,313.66. These charges ranged from \$13,193.81 to \$297,556.00 (Table). Listed charges varied by region (Figure). Northeast hospitals were least compliant and least uniform with pricing presentation, but it should be noted that the Northeast region also presented the greatest volume of hospitals.

## DISCUSSION AND CONCLUSION:

There was regional heterogeneity in chargemaster data including identifiers used and the presentation of charges associated with MS-DRG related to cervical fusion. True price transparency and patient benefit relies on efforts to create uniformity in chargemaster reporting, especially in identifiers like MS-DRG, that provide bundled cost information for given diagnoses or procedures. Inclusion of MS-DRG information into the chargemaster will improve price transparency and the ability for patients to estimate and compare costs.

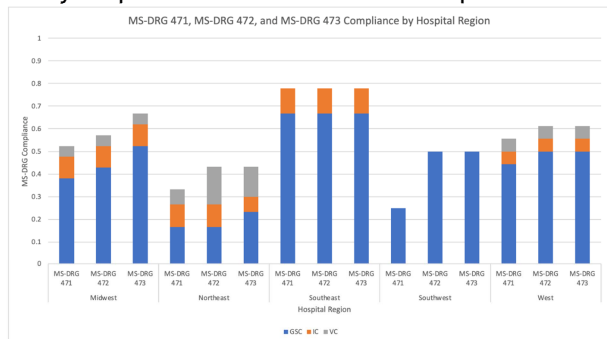


Figure: MS-DRG 471, 472, and 473 Compliance and Formatting by Hospital Region

Chargemaster Data			
Chargemaster included?	98/100 (98%)		
Technical Difficulty	24/100 (24%)		
Accessible Chargemasters	74/100 (74%)		
	MS-DRG 471	MS-DRG 472	MS-DRG 473
MS-DRG Included?	39/74 (52.7%)	45/74 (60.8%)	47/74 (63.5%)
Gross Standard Charges (GSC)	28/39 (71.8%) (mean = \$217,633.85) (range: \$20,895.94 - \$674,716.00)	31/45 (68.9%) (mean = \$125,019.79) (range: \$17,326.91 - \$350,183.00)	35/47 (74.5%) (mean = \$94,313.66) (range: \$13,193.81 - \$297,556.00)
Insurance-based Charges (IC)	7/39 (17.9%)	7/45 (15.6%)	6/47 (12.8%)
Variable/No Charges (VC)	4/39 (10.3%)	7/45 (15.6%)	6/47 (12.8%)

Table: Variability in Chargemaster Data and MS-DRG 471, 472, and 473 Presentation