

Commercial Negotiated Prices for CMS-specified Shoppable Radiology Services in U.S. Hospitals: Research Letter

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Conflicts of interest are listed at the end of this article.

See also the editorial by Forman in this issue.

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To promote price competition and reduce health care costs, the U.S. Centers for Medicare and Medicaid Services (CMS) implemented the Hospital Price Transparency final rule, effective January 1, 2021 (1). Among other provisions, the rule requires that hospitals in the United States display the commercial payer-specific negotiated price (ie, for facility fee only) for 70 CMS-specified common shoppable services, which CMS defines as being routinely provided in nonurgent situations that allow patients to shop for prices and to schedule in advance (1). A total of 13 radiology services are included in the 70 services (1). Understanding commercial negotiated prices for shoppable radiology services has important implications for patients, employers, and insurance plans with incentives and the ability to shop for hospital care (2). A national analysis of the level and range of commercial negotiated prices for the 13 shoppable radiology services was conducted based on disclosed data as of September 6, 2021.

Materials and Methods

All of the 13 CMS-specified shoppable radiology services, representing 13 unique Current Procedural Terminology (CPT) codes, are diagnostic radiology services (1). On September 6, 2021, payer-specific negotiated prices of these services for all hospitals that have disclosed such information were obtained from Turquoise Health, a data service company in San Diego, California, that uses standardized and automated searching algorithms to scan hospital websites for price disclosure information (3). A total of 5700 hospitals (94% of all 6090 U.S. hospitals) had been reviewed by Turquoise Health by that date (4). Turquoise Health used Python (Python Software Foundation), PostgreSQL (PostgreSQL Global Development Group), and open-source DBBeaver software to perform its review.

Consistent with previous research, the median commercial negotiated price across all commercial plans was obtained for each disclosing hospital for each service (2). The number of disclosing hospitals, the states in which they are located, the median number of contracted health plans, and the median, interquartile range, and 10th and 90th percentiles of their median commercial negotiated price were calculated for each service. The median Medicare rate among all hospitals that disclosed their Medicare

rates for each service was also reported to provide a reference price level. The Johns Hopkins institutional review board determined that this study did not require approval because no human participants were involved. Analysis was conducted using SAS software (version 9.4, SAS Institute).

Results

As of September 6, 2021, a mean of 2053 of the 5700 hospitals (36%) reported the commercial negotiated price for one of the 13 CMS-specified shoppable radiology services, with the median number of plans contracted with a hospital ranging from 10 to 12 across the services (Table). The disclosure rate was the lowest for mammography of one breast (CPT code 77065; 1708 hospitals [30%]) and the highest for CT of the abdomen and pelvis with contrast material (CPT code 74177; 2238 hospitals [39%]). Disclosing hospitals are dispersed across the country. Compared with the Medicare rate, CT examination of the head or brain (CPT code 70450) had the highest median negotiated price (\$813 vs \$137), and mammography (CPT codes 77065, 77066, and 77067) had the lowest median negotiated prices (\$230 vs \$101; \$289 vs \$129; and \$235 vs \$104, respectively).

The spread of commercial negotiated price was widest for CT examination of the abdomen and pelvis with contrast material (CPT code 74177). The interquartile range was 1.3 times the median, and the 90th percentile to 10th percentile range was 2.3 times the median. On the other hand, the spread was narrowest for mammography (CPT codes 77065, 77066, and 77067). The interquartile and 90th percentile to 10th percentile ranges for mammography were 0.7–0.8 times and 1.3–1.4 times their medians.

Discussion

Extending early evidence on hospital compliance with the Hospital Price Transparency rule (2,5), we found that 8 months after the rule went into effect, only approximately one-third of U.S. hospitals disclosed their commercial negotiated prices for one of the 13 U.S. Centers for Medicare and Medicaid Services-specified shoppable radiology services. The level and spread of commercial negotiated prices among the disclosing hospitals varied substantially across the 13 services. Broad transparency on hospital pricing

Commercial Negotiated Prices for CMS-specified 13 Shoppable Radiology Services, as of September 6, 2021

Radiology Service	No. of Hospitals*	Median No. of Plans†	Median Negotiated Price‡	Price IQR§	Price for 10th Percentile to 90th Percentile Range¶	Medicare Rate#
CT examination of head or brain without contrast material (CPT code 70450)	2236 (51)	11	\$813	\$363–\$1275 (1.1)	\$199–\$1882 (2.1)	\$137
MRI examination of brain before and after contrast material administration (CPT code 70553)	2158 (51)	11	\$1788	\$965–\$3033 (1.2)	\$550–\$4209 (2.0)	\$446
X-ray, lower back, minimum of four views (CPT code 72110)	2192 (51)	11	\$291	\$166–\$453 (1.0)	\$103–\$657 (1.9)	\$114
MRI examination of lower spinal canal (CPT code 72148)	2183 (51)	11	\$1311	\$676–\$2148 (1.1)	\$381–\$3050 (2.0)	\$269
CT examination of pelvis with contrast material (CPT code 72193)	2077 (51)	10	\$1079	\$548–\$1694 (1.1)	\$331–\$2433 (1.9)	\$221
MRI examination of leg joint (CPT code 73721)	2091 (51)	12	\$1276	\$690–\$2050 (1.1)	\$400–\$2829 (1.9)	\$267
CT examination of abdomen and pelvis with contrast material (CPT code 74177)	2238 (51)	11	\$1654	\$791–\$3024 (1.3)	\$453–\$4340 (2.3)	\$431
US of abdomen (CPT code 76700)	2227 (51)	11	\$455	\$225–\$737 (1.1)	\$154–\$1008 (1.9)	\$129
Abdominal US of pregnant uterus (CPT code 76805)	1873 (50)	11	\$396	\$225–\$616 (1.0)	\$144–\$878 (1.9)	\$120
US of pelvis through vagina (CPT code 76830)	2190 (51)	11	\$359	\$203–\$562 (1.0)	\$137–\$783 (1.8)	\$120
Mammography of one breast (CPT code 77065)	1708 (50)	12	\$230	\$157–\$323 (0.7)	\$102–\$426 (1.4)	\$101
Mammography of both breasts (CPT code 77066)	1726 (50)	11	\$289	\$190–\$410 (0.8)	\$126–\$535 (1.4)	\$129
Mammography, screening, bilateral (CPT code 77067)	1793 (50)	12	\$235	\$161–\$333 (0.7)	\$111–\$428 (1.3)	\$104

Note.—The description of some services is simplified. CMS = U.S. Centers for Medicare and Medicaid Services, CPT = Current Procedural Terminology, IQR = interquartile range.

* No. of hospitals indicates the number of hospitals that disclosed negotiated commercial price information for the service. Numbers in parentheses indicate the number of states where these hospitals are located.

† Median no. of plans is the median number of commercial plans contracted with the hospital for the service across hospitals that disclosed negotiated commercial price information for the service.

‡ Median negotiated price is the median value of hospitals’ median negotiated prices across hospitals that disclosed negotiated commercial price information for the service. The median negotiated price for each hospital is measured as the median negotiated price across all of its commercial plans.

§ The ratio in parentheses is measured as the spread between the 75th percentile negotiated price and the 25th percentile negotiated price divided by the median negotiated price for the service across hospitals that disclosed negotiated commercial price information for the service.

¶ The ratio in parentheses is measured as the spread between the 90th percentile negotiated price and the 10th percentile negotiated price divided by the median negotiated price for the service across hospitals that disclosed negotiated commercial price information for the service.

Medicare rate is the median Medicare rate across hospitals that disclosed both commercial negotiated price and Medicare rate for the service (median, 1518 hospitals; range, 1132–1562 hospitals).

for shoppable radiology services has the potential to benefit payers interested in shopping for affordable hospital care (6).

The results of this study are subject to potential selection bias because nondisclosing hospitals might differ from disclosing hospitals in pricing behavior. The cross-plan price variation within the same hospital and the cross-hospital variation

within the same plan are beyond the scope of this study. These topics remain promising areas for future research.

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