

Research Letter

Mohs Surgery Price Transparency and Variability at Academic Hospitals After the Implementation of the Federal Price Transparency Final Rule

Neelesh P Jain^{1*}, MD; Christian Gronbeck^{1*}, MD; Eric Beltrami², MD; Hao Feng^{1*}, MD, MHS

¹Department of Dermatology, University of Connecticut, Farmington, CT, United States

²School of Medicine, University of Connecticut, Farmington, CT, United States

*these authors contributed equally

Corresponding Author:

Hao Feng, MD, MHS

Department of Dermatology

University of Connecticut

21 South Rd, 2nd Floor

Farmington, CT, 06032

United States

Phone: 1 860 679 4600

Email: haofeng625@gmail.com

(*JMIR Dermatol* 2023;6:e50381) doi: [10.2196/50381](https://doi.org/10.2196/50381)

KEYWORDS

Mohs micrographic surgery; Mohs surgery; Mohs; dermatologic surgery; price transparency; healthcare costs; health care costs; healthcare policy; health care policy; dermatology; dermatological; surgery; surgical; Medicare; insurance; coverage; cost; costs; economic; economics; fee; fees; price; prices; pricing; transparency; reporting

Introduction

In response to rising health care costs, which can lead to high out-of-pocket patient costs, the US federal government implemented the Hospital Price Transparency Final Rule in 2021 [1,2]. This legislation mandates that hospitals disclose cash and commercial insurance prices for at least 300 medical services. The goal was to foster price transparency, stimulate price competition, and ultimately lower health care costs. As use of Mohs micrographic surgery (MMS) continues to expand, understanding the cost variability of this procedure across hospitals and geographic regions is crucial. Our study aimed to elucidate the current landscape of price transparency and variability for MMS procedure costs at academic hospitals, inclusive of facility and physician fees.

Methods

Overview

To ensure the hospitals evaluated offered MMS, we limited our selection criteria to academic hospitals with MMS fellowships. Private clinics were excluded as they are not subject to the Price Transparency Rule. Using Turquoise Health, a company that compiles nationwide price information from hospitals, we evaluated hospital-reported cash and commercial insurance prices for Current Procedural Terminology (CPT) code 17311

for the calendar year 2022; additional MMS CPT codes (17312-17315) were not reported by hospitals [3]. For reference, we gathered Medicare-reported facility and physician fees, adjusted by state [4]. We calculated the percentage of hospitals reporting cash and commercial insurance prices and compared median prices by payment type.

Ethical Considerations

This study used publicly available online data sets and did not qualify as human subject research; therefore, institutional review board approval was not required at the University of Connecticut Health Center.

Results

Among 62 hospitals, 36 (58.1%) reported commercial insurance prices and 27 (43.5%) reported cash prices, with 26 (41.9%) reporting both. Hospitals in the Northeast more frequently reported cash prices as compared to other regions (73.7% vs 27.3%-35.7%, $P=.02$); regional differences in commercial insurance price reporting did not reach significance ($P=.16$). Hospitals in the Northeast reported the highest median cash prices (\$1266.8 vs \$514.8-\$838.7, $P=.04$); regional differences in median commercial insurance prices did not reach significance ($P=.07$). Across all hospitals, cash prices were more frequently ($n=16$, 59.3%) higher than commercial prices (Table 1).

Table 1. Price^a reporting and variation for Mohs micrographic surgery by payor type among academic hospitals.

Region and payor type	Hospitals reporting price, n (%)	Price (US \$), median (IQR)	Payor type as lowest reported price, n (%) ^b
All regions (N=62 hospitals)			
Cash	27 (43.5)	838.7 (585.6-1711.8)	16 (59.3)
Commercial	36 (58.1)	717.4 (539.2-1330.0)	11 (40.7)
Medicare, facility fee	— ^c	457.9 (432.7-527.3)	—
Medicare, facility plus physician fees	—	806.1 (780.2-886.2)	—
Northeast (n=19 hospitals)			
Cash	14 (73.7)	1266.8 (690.4-1856.2)	11 (78.6)
Commercial	15 (78.9)	707.3 (633-1135.8)	3 (21.4)
Medicare, facility fee	—	459.6 (457.9-574.6)	—
Medicare, facility plus physician fees	—	819.2 (805.6-971.2)	—
Midwest (n=14 hospitals)			
Cash	5 (64.3)	514.8 (494.0-585.6)	3 (60)
Commercial	7 (50)	531.8 (513.0-539.9)	2 (40)
Medicare, facility fee	—	441.7 (432.7-459.7)	—
Medicare, facility plus physician fees	—	786.7 (765.4-808.1)	—
South (n=18 hospitals)			
Cash	5 (27.8)	773.0 (461.5-827.1)	1 (25)
Commercial	8 (55.6)	1254.5 (700.9-1831.7)	3 (75)
Medicare, facility fee	—	429.6 (403.9-437.2)	—
Medicare, facility plus physician fees	—	780.3 (767.2-790.7)	—
West (n=11 hospitals)			
Cash	3 (27.3)	838.7 (542.3-1214.9)	0 (0)
Commercial	6 (54.5)	1178.2 (686-1330)	3 (100)
Medicare, facility fee	—	681.6 (527.3-681.6)	—
Medicare, facility plus physician fees	—	1058.8 (886.2-1058.8)	—

^aHospital-reported median cash prices, commercial insurance prices, and reference Medicare facility and physician fees for Mohs micrographic surgery. Commercial insurance prices for each hospital indicate the median across all payors (eg, UnitedHealth, Anthem, Humana, etc) as reported by the hospital. While the intention of the Hospital Price Transparency Final Rule is to provide comparable holistic pricing information, certain hospitals include only hospital facility fees while others additionally include physician fees in the reported prices. For this reason, Medicare facility and physician fees are provided for contextual purposes but direct comparisons to the hospital-reported prices are not made.

^bAnalysis only conducted for hospitals with both prices listed; at 1 hospital, median cash and commercial prices were equivalent.

^cNot applicable.

Discussion

Principal Findings

The findings indicate that fewer than half of hospitals reported both cash and commercial insurance prices for MMS, and median prices varied substantially across payor types and regions. This is consistent with findings in other surgical fields [1,5-7]. Regional variations may be partially explained by studies that have shown a hospital's compliance with the Price Transparency Rule is most strongly associated with the compliance status of its peer hospitals in the same area [8]. Interestingly, cash prices tended to be the highest, possibly because this helps hospitals offset losses incurred treating

uninsured patients. Other studies have shown that compliance with the Price Transparency Rule is below 30%, yet only 2 hospitals have been fined for noncompliance [1]. The cost of compliance, requiring adequate information technology expertise and personnel, can be a barrier to hospitals with fewer financial resources [8]. Strategies to increase compliance include implementing positive incentives, proper enforcement, and increased financial penalties [9]. Many MMS procedures are performed in private clinics, which the Price Transparency Rule does not apply to. Fully enabling price shopping for MMS would require the Price Transparency Rule mandating MMS prices be reported by both hospital systems and private clinics. Additionally, pricing information would need to be easier for patients to access, comprehend, and compare.

Conclusion

Our findings indicate that significant variability and opacity exist in MMS pricing at academic hospitals. Across all of health care, pricing is not often clearly defined or publicly available. This ambiguity can be confusing for both health care providers and patients, possibly leading to wider cost variability and hindered health care access for select patients. Additional studies exploring health care costs may help shed light on the factors influencing price variability. Limitations to this study include the inability to generalize to nonacademic hospital settings such

as private clinics, which perform many MMS procedures but to which the Price Transparency Rule does not apply. Additionally, benchmarking to Medicare pricing, which contains well-delineated facility and physician fees, is difficult as not all hospitals report both fee components despite the intention of the Price Transparency Rule to provide a complete picture of the total cost for a given service [2]. Nonetheless, this analysis provides an important initial characterization of the current state of MMS pricing transparency and variability at academic hospitals.

Conflicts of Interest

HF is a consultant for Cytrellis Biosystems, Inc and Soliton, Inc.

References

1. Gul ZG, Sharbaugh DR, Guercio CJ, Pelzman DL, Jones CA, Hacker EC, et al. Large variations in the prices of urologic procedures at academic medical centers 1 year after implementation of the Price Transparency Final Rule. *JAMA Netw Open* 2023 Jan 05;6(1):e2249581 [doi: [10.1001/jamanetworkopen.2022.49581](https://doi.org/10.1001/jamanetworkopen.2022.49581)]
2. Centers for Medicare and Medicaid Services; Department of Health and Human Services. Medicare and Medicaid programs: CY 2020 hospital outpatient PPS policy changes and payment rates and ambulatory surgical center payment system policy changes and payment rates. Price transparency requirements for hospitals to make standard charges public. *Federal Register*. 2019 Nov 27. URL: <https://www.federalregister.gov/documents/2019/11/27/2019-24931/medicare-and-medicaid-programs-cy-2020-hospital-outpatient-pps-policy-changes-and-payment-rates-and> [accessed 2023-01-15]
3. Compare prices before you get care. Turquoise Health. URL: <https://turquoise.health> [accessed 2023-01-15]
4. Physician fee schedule. Centers for Medicare and Medicaid Services. URL: <https://www.cms.gov/medicare/physician-fee-schedule/search> [accessed 2023-01-15]
5. Rochlin DH, Rizk NM, Matros E, Wagner TH, Shekter CC. Commercial price variation for breast reconstruction in the era of price transparency. *JAMA Surg* 2023 Feb 01;158(2):152 [doi: [10.1001/jamasurg.2022.6402](https://doi.org/10.1001/jamasurg.2022.6402)]
6. Berkowitz ST, Siktberg J, Hamdan SA, Triana AJ, Patel SN. Health care price transparency in ophthalmology. *JAMA Ophthalmol* 2021 Nov 01;139(11):1210 [doi: [10.1001/jamaophthalmol.2021.3951](https://doi.org/10.1001/jamaophthalmol.2021.3951)]
7. Burkhart RJ, Hecht CJ, Acuña AJ, Kamath AF. Less than one-third of hospitals provide compliant price transparency information for total joint arthroplasty procedures. *Clin Orthop Relat Res* 2022 Jun 24;480(12):2316-2326 [doi: [10.1097/corr.0000000000002288](https://doi.org/10.1097/corr.0000000000002288)]
8. Jiang JX, Polsky D, Littlejohn J, Wang Y, Zare H, Bai G. Factors associated with compliance to the Hospital Price Transparency Final Rule: a national landscape study. *J Gen Intern Med* 2021 Dec 13;37(14):3577-3584 [doi: [10.1007/s11606-021-07237-y](https://doi.org/10.1007/s11606-021-07237-y)]
9. Kong E, Ji Y. Provision of hospital price information after increases in financial penalties for failure to comply with a US federal Hospital Price Transparency Rule. *JAMA Netw Open* 2023 Jun 28;6(6):e2320694 [doi: [10.1001/jamanetworkopen.2023.20694](https://doi.org/10.1001/jamanetworkopen.2023.20694)]

Abbreviations

CPT: Current Procedural Terminology

MMS: Mohs micrographic surgery

Edited by R Dellavalle; submitted 29.06.23; peer-reviewed by N Curcio, S Afzal; comments to author 17.09.23; revised version received 05.10.23; accepted 31.10.23; published 15.11.23

Please cite as:

Jain NP, Gronbeck C, Beltrami E, Feng H

Mohs Surgery Price Transparency and Variability at Academic Hospitals After the Implementation of the Federal Price Transparency Final Rule

JMIR Dermatol 2023;6:e50381

URL: <https://derma.jmir.org/2023/1/e50381>

doi: [10.2196/50381](https://doi.org/10.2196/50381)

PMID: [37966874](https://pubmed.ncbi.nlm.nih.gov/37966874/)

©Neelesh P Jain, Christian Gronbeck, Eric Beltrami, Hao Feng. Originally published in JMIR Dermatology (<http://derma.jmir.org>), 15.11.2023. This is an open-access article distributed under the terms of the Creative Commons Attribution License (<https://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work, first published in JMIR Dermatology, is properly cited. The complete bibliographic information, a link to the original publication on <http://derma.jmir.org>, as well as this copyright and license information must be included.