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Patient Cost Share for Emergency Physician Services During the COVID-19 Pandemic

Bing Shih Pao, MD, and Theodore Craig Chan, MD

Department of Emergency Medicine, University of California, San Diego, San Diego, California
Reprint Address: Bing Shih Pao, MD, Department of Emergency Medicine, University of California, 200 West Arbor Drive, San Diego, CA 92103.

Abstract—Background: As a result of the Coronavirus disease 2019 (COVID-19) pandemic, health plans were required to implement, or voluntarily implemented, patient cost-share waivers for COVID-19-related emergency care. The impact of the cost waivers on patients for emergency physician services has not been previously reported. Objective: To measure the impact of COVID-19 cost-sharing waivers on patients for emergency physician services. Methods: A multicenter retrospective review of emergency physician commercial claims was conducted to determine the impact of the patient cost share waivers on COVID-19-related emergency physician services. Seventy-seven emergency departments (EDs) representing about a quarter of all EDs in California were included in the study. Emergency physician claims during a 9-month prepandemic period in 2019 were compared with claims during a 9-month pandemic period in 2020 to determine if there were any changes in the patient cost share between the two study periods and between COVID vs. non-COVID-related care. Results: The average patient cost share was $19 for COVID-19-related emergency physician professional care and $52 for visits unrelated to COVID-19. Compared with non-COVID-19 care visits, the patient cost share was 63% less for COVID-19-related care. There was a small increase (< $2) in the patient cost share for non-COVID-19 emergency professional care during the pandemic compared with the prepandemic period. Conclusion: Payment policies implemented by California health plans were effective at reducing the patient cost share for patients that required COVID-19-related emergency physician care. © 2022 The Author(s). Published by Elsevier Inc.

Keywords—Patient cost share waivers; COVID-19 emergency care; Emergency physician professional services

Introduction

The patient cost share, also known as the “out-of-pocket expense,” is the portion of the costs that an individual pays for medical services. Patient cost sharing is used to reduce utilization of emergency services by shifting health care costs to patients (1). Health plans implement patient cost sharing through patient deductibles, coinsurance, and copayments.

The Department of Health and Human Services declared a public health emergency due to the COVID-19 pandemic on January 27, 2020 (2). To remove testing barriers, the Families First Coronavirus Response Act was enacted on March 18, 2020, requiring group and individual health plans to cover the cost of testing and related services for the diagnosis of Coronavirus disease 2019 (COVID-19) (3,4). California regulatory agencies also issued a directive instructing payers to eliminate cost sharing for emergency department (ED) screening, testing, and COVID-19-related care (5). As a result, many health plans began to cover the entire cost of COVID-19 test-
ing and related care in the ED by waiving the patient cost share (6).

There are a few reports about the amount of the patient cost share for COVID-19-related care as a result of these changes. An examination of a large national claim database calculated the median out-of-pocket expense for privately insured patients hospitalized for COVID-19 to be $788 (7). The same study showed that patients hospitalized for COVID-19 incurred $31 of out-of-pocket expenses for ED clinical services, which is presumed to be the professional services component (7). In our study, we analyzed the impact of the COVID-19 cost-sharing waivers on patients for emergency physician professional services in California. The study does not include the impact of the cost waiver on hospital services.

Materials and Methods

We conducted a multicenter retrospective review of emergency physician commercial claims and payment data for a single emergency professional physician group that staffs 77 EDs in California, representing about a quarter of all EDs in California (8). The EDs were spread geographically across California and include rural and urban EDs. Claims with dates of service from March 18–December 31, 2019 (pre-COVID period), were compared with claims from March 18–December 31, 2020 (COVID period). Medicare, Medicaid, TriCare, worker’s compensation, and other noncommercial insurance claims were excluded from the study. The claims included patients that were admitted, transferred, or discharged from the ED. Only closed claims were included in the analysis. A claim is considered closed either when it is paid in full or when no further efforts are made to collect payment.

Ninety-nine percent of total claims were closed in 2019, and 96% of claims were closed in 2020. Services were provided by either an emergency physician or a physician extender that was supervised by an emergency physician. The analysis included contracted and noncontracted commercial claims; 95% of the claims were contracted claims. The claims were subdivided into non-COVID-19-related claims and COVID-related claims based on International Classification of Diseases, Tenth Revision (ICD-10) diagnosis codes (Z03.818, Z20.828, Z11.59, 897.29, and U07.1). Please refer to the glossary (Appendix) for a description of the ICD-10 codes associated with COVID-19.

The patient cost share was determined by the health plan by adding the patient deductible, coinsurance, and copay together. The patient deductible is the amount a patient pays for covered health care services before the health insurance starts to pay. The coinsurance is the amount, generally expressed as a percentage, an insured patient must pay for medical services after the deductible amount is met. The copay is the fixed amount that a patient pays for covered health care. The amount the emergency physician bills the patient for the patient cost share was obtained from the explanation of benefit statement that was remitted by the health plan. The amount collected is the amount of the patient cost share that is actually paid by the patient to the emergency physician as reported by the emergency physician’s billing company. The amount collected was divided by the patient cost share to calculate the percentage of the patient cost share collected. The maximum allowable benefit was calculated by adding the maximum amount a health plan will pay, contracted or noncontracted, plus the patient cost share. The maximum allowable benefit represents the maximum amount an emergency physician can collect for emergency physician professional services if the patient pays the entire cost share. The COVID-19-related claims were compared with the non-COVID-related claims to determine the difference in the total patient cost share and amount collected. Please refer to the glossary for a quick reference to the various definitions.

The acuity of the COVID-19-related, and COVID-19-unrelated visits during the pandemic were compared to determine if the severity of illness could account for differences in the patient cost share. We calculated the average work relative value unit (RVU) per visit for the evaluation and management codes as a surrogate for measuring the severity of illness. Severity of illness during the study period in 2019 and 2020 was also examined by comparing the average RVU per visit.

Results

A total of 419,560 claims were identified for analysis during the COVID period. A total of 534,102 claims were identified during the pre-COVID period of 2019 and analyzed for comparison. During the pandemic, the number of total ED visits dropped dramatically, resulting in fewer claims for analysis during the COVID period. There was a total of 94,541 COVID-19-related claims that were included in the study during the COVID period. During the COVID period, the average patient cost share for COVID-19-related emergency physician professional services was $19.35 (95% confidence interval [CI] $18.72–20.00), and $52.29 (95% CI $51.78–$52.81) for non-COVID-related visits. Overall, the patient cost share was 63% less for COVID-19-related care. The average patient payment for COVID-19-related care was $9.42 (95% CI $9.04–9.81), and for non-COVID-19 care, $27.78 (95% CI $27.45–28.11). The percentage of the maximum allowable benefit that was paid to the emergency physician was 97% for COVID-19-related visits and 93% for non-COVID visits.
The non-COVID patient cost share during the pre-COVID and COVID-19 period were similar ($50.67 vs. $52.29, respectively). Results are summarized in Table 1.

In terms of acuity, there was an increase in lower acuity visits for COVID-related care during the COVID study period, but it was offset by an increase in critical care visits. Overall, the work RVUs, which represents the relative cost of providing a medical service, was the same for COVID and non-COVID visits during the pandemic period. The average RVU for both COVID-related and non-COVID care was 2.92, and there was no statistical difference between the two groups ($p = 0.38)$. There was a lower acuity in 2019, compared with 2020 (2.87 vs 2.92 RVUs), that was statistically significant ($p < 0.001$). Typically, a higher acuity would result in a higher maximum allowable benefit and patient cost share. The maximum allowable benefit for a non-COVID visit in 2020 was about 4% higher than in 2019, which would translate into a slightly higher cost share of about $2.

### Discussion

Health plans determine the amount of the patient cost share after receiving a claim from a health care provider. The amount of the cost share is based on contracted rates or the health plan’s allowable amount for noncontracted claims. The patient cost share for ED care is usually billed separately for emergency physician professional services and hospital facility services. After the health plan determines the amount of the patient cost share, the emergency physician typically bills the patient for the cost share that corresponds to the emergency physician’s professional service. If the health plan waived the patient cost share,
the patient would not receive a bill for emergency physician services.

The patient cost share for an ED visit can represent a significant expense to consumers. According to a study conducted by TransUnion, the average cost share in 2018 for an ED visit was $617 (9). The patient cost share for the emergency physician professional component is expected to be a small fraction of the total cost of an ED visit. In a previous study of noncontracted emergency physician claims, the average patient cost share from 2011–2015 was $58 (10).

Most payers voluntarily waived the patient cost share for the treatment of COVID-19-related illness during the beginning of the pandemic (11,12). According to a Kaiser Family Foundation study, 88% of enrollees in individual and fully insured group plans had cost sharing waived at some point during the pandemic (11). However, the study did not include self-funded insured plans, which can opt out of the cost waivers (11). Most of these waivers were set to expire at the end of 2020 or early 2021 (13). In many instances, the cost waivers applied only when care was provided in-network (14). These findings help explain the reason why the COVID-19 cost share was reduced, but not eliminated, in our study.

Our study demonstrated that the patient cost share was significantly lower for COVID-19-related emergency physician professional services compared with non-COVID-related visits. Our study did not include the impact of the cost-sharing waivers on hospital services. There was very little change in the patient cost share for care that was unrelated to COVID-19 during the study period, compared with the pre-COVID period, which indicates that the cost waivers were well targeted. The patient cost share for COVID-19-related care during the pandemic was the same whether the service was contracted or noncontracted. The findings seem to indicate that cost-sharing waivers were implemented even if the patient sought care from a noncontracted emergency physician.

The percentage of the cost share that was paid by the patient did not change significantly for COVID-19-related claims vs. non-COVID claims, even though the total patient cost share for COVID-19 claims was substantially less. This seems to contradict a previous study conducted on outpatient visits, which demonstrated a decline in collections as the patient cost share increased. In that study, the patient collections dropped from 93% when the patient cost share was < $35 to 66% when the patient cost share was more than $200 (15). The higher percentage of the maximum allowable that was collected by the emergency physician for COVID-19-related care seems to indicate that the health plans did cover more of the costs. As a result, the amount that the patient owed or paid for emergency physician service was substantially less for COVID-19-related care.

Limitations

The study examined the patient cost share during the time most health plans implemented cost-sharing waivers for COVID-19-related care. Health plans could have implemented cost-sharing waivers after the start date of the study or stopped prior to the end of the study period. Some health plans may not have implemented patient cost-sharing waivers. The study only examined the experience of a single large emergency physician group in California. The impact of the cost waivers could be different in other states and for different emergency physician groups, especially because contracted rates and billing practices can vary significantly. Contracted rates could also change, although rates typically do not change drastically from year to year. The difference in the percentage of closed claims between the prepandemic period and pandemic period could have influenced the average amount of the cost share paid by the patient. The higher percentage of open claims during the pandemic period could represent more claims that ultimately resulted in reduced patient cost share payments. The open claims could also represent a higher patient cost share that patients can’t afford. Due to antitrust statutes and contract confidentiality requirements, charges and contracted allowable amounts could not be shared. There could have been other factors that influenced the patient cost share for COVID-19-related care, but because the patient cost share was similar when comparing the pre-COVID and COVID periods, the waivers likely accounted for the difference.

Conclusion

In conclusion, payment policies implemented by health plans were effective at reducing total out-of-pocket expenses for patients that required COVID-19-related emergency physician care. Although the study findings were confined to California, the cost share reductions likely extended to other parts of the country.

Glossary

| Deductible | Amount patient pays for covered health services before health insurance starts to pay |
|------------|---------------------------------------------------------------------------------|

(continued on next page)
### Table 1: Additional Health Insurance Benefits

| Code | Description |
|------|-------------|
| Coinsurance | Percentage an insured patient pays for medical services after the deductible is met |
| Copay | Fixed amount an insured patient pays for covered health care benefits |
| Patient cost share | Deductible + Coinsurance + Copay |
| Amount collected | Patient payment + insurance payment |
| Maximum allowable benefit | Patient cost share + insurance payment |
| Z03.818 | Suspected possible COVID-19 exposure ruled out |
| Z20.828 | Exposure to someone confirmed to have COVID-19 |
| Z11.59 | Encounter for screening for other viral diseases |
| B97.29 | Other coronavirus as the cause of diseases, classified elsewhere as COVID-19 diagnosis codes |
| U07.1 | 2019-nCoV acute respiratory disease |

### References

1. Selby JV, Fireman BH, Swain BE. Effect of a copayment on use of the emergency department in a health maintenance organization. N Engl J Med 1996;334:635–42.
2. U.S Department of Health and Human Services. Public health emergency declarations. Available at: <https://www.phe.gov/emergency/news/healthactions/phe/Pages/default.aspx>. Accessed September 12, 2021.
3. Congress.gov. H.R.6201: Families First Coronavirus Response Act. 116th Congress (2019-2020), March 18, 2020. Available at: <https://www.congress.gov/bill/116th-congress/house-bill/6201/text>. Accessed September 11, 2021.
4. Centers for Medicare and Medicaid Services. Biden administration strengthens requirements that plans and issuers cover COVID-19 diagnostic testing without cost sharing and ensures physicians are reimbursed for administering COVID-19 vaccines to uninsured. 2021. Available at: <https://www.cms.gov/newsroom/press-releases/biden-administration-strengthens-requirements-plans-and-issuers-cover-Covid-19-diagnostic-testing>. Accessed September 4, 2021.
5. California Department of Insurance. Governor Newsom and commissioner Lara waive consumer cost-sharing for COVID-19 testing. March 5, 2020. Available at: <http://www.insurance.ca.gov/0400-news/0100-press-releases/2020/release625-2020-2.cfm>. Accessed September 12, 2021.
6. Waddill K. Payers eliminate coronavirus treatment cost-sharing before Feds. Health Payer Intelligence. April 6, 2020:202X <https://healthpayerintelligence.com/news/payers-eliminate-coronavirus-treatment-cost-sharing-before-feds>. Accessed September 12, 2021.
7. Chua K-P, Conti RM, Becker NV. Out-of-pocket spending for COVID-19 hospitalizations in 2020. medRxiv. January 1, 2021-202X <https://www.medrxiv.org/content/10.1101/2021.05.26.21257879v1>. Accessed September 12, 2021.
8. Hsia R. 2018 edition – California emergency departments. California Health Care Foundation. June 30, 2020. Available at: <https://www.chcf.org/publication/2018-edition-california-emergency-departments-use-grows-coverage-expands/>. Accessed September 11, 2022.
9. Bannow T. (2019, June 25). Report: Patients’ out-of-pocket costs increased up to 14% in 2018. Modern Healthcare 2019. Retrieved July 19, 2022, from <https://www.modernhealthcare.com/patients/report-patients-out-pocket-costs-increased-up-14-2018>.
10. Cooper Z, Scott Morton F, Shekita N. Surprise! Out-of-network billing for emergency care in the United States. 2020. Available at: <https://www.nber.org/system/files/workings_papers/w23623/w23623.pdf>. Accessed September 11, 2021.
11. McDermott D, Cox C. Cost-sharing waivers and premium relief by private plans in response to Covid-19 (November 2020 update). Kaiser Family Foundation (KFF). November 20, 2020. Available at: <https://www.kff.org/health-costs/issue-brief/cost-sharing-waivers-and-premium-relief-by-private-plans-in-response-to-Covid-19/>. Accessed August 30, 2021.
12. Albrecht L. Most major health insurers aren’t charging patients for coronavirus treatment – but that doesn’t mean it’s free. Market-Watch. May 11, 2020. Available at: <https://www.marketwatch.com/story/most-major-health-insurers-arent-charging-patients-for-coronavirus-treatment-but-thers-one-big-catch-2020-05-01>. Accessed August 30, 2021.
13. Appleby J. Time to say goodbye to some insurers’ waivers for covid treatment fees. Kaiser Health News. April 27, 2021. Available at: <https://khn.org/news/article/time-to-say-goodbye-to-some-insurers-waivers-for-covid-treatment-fees/>. Accessed May 7, 2022.
14. Hudman J. Cost-sharing waivers and premium relief by private plans in response to COVID-19. Peterson-KFF Health System Tracker August 20, 2020:202X. Available at: <https://www.healthsystemtracker.org/brief/cost-sharing-waivers-and-premium-relief-by-private-plans-in-response-to-Covid-19/>. Accessed August 30, 2021.
15. Chernew ME, Bush J. As patients take on more costs, will physicians shoulder the burden? Health Affairs. May 4, 2017. Available at: <https://www.healthaffairs.org/do/10.1377/hblog20170504.059950/full/>. Accessed September 11, 2021.
ARTICLE SUMMARY

1. Why is this topic important?
   The Coronavirus disease 2019 (COVID-19) pandemic placed a financial burden on patients seeking emergency physician professional care. Patient cost-sharing waivers for COVID-19-related care were implemented to reduce the financial burden on patients. The effectiveness of the cost-sharing waivers on patients is not known.

2. What does this study attempt to show?
   Measure the impact of COVID-19 patient cost-sharing waivers on patients for emergency physician services.

3. What are the key findings?
   The patient cost share was 63% less for COVID-19-related emergency physician professional care vs. non-COVID or unrelated care.

4. How is patient care impacted?
   Cost-sharing waivers implemented by health plans were effective at reducing total out-of-pocket expenses for patients that required COVID-19-related emergency physician professional care.