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Chargemasters in the age of hospital price transparency

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CHARGEMASTERS IN THE AGE OF HOSPITAL PRICE TRANSPARENCY

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INTRODUCTION

The cost of health care services in the United States (U.S.) varies not only from state to state but from facility to facility. A total knee replacement, for example, cost $11,317 in Montgomery, Alabama and $69,654 in New York City, a 515.481% increase from the former to the latter (Health Care Financing & Organization, 2015). The populations of the two areas had similar median income levels but various differences which included factors such as demographic makeup. The most recent U.S. census data indicated Montgomery, Alabama had a population of 228,954, a median income of $50,124, and 20.4% of the population living in poverty while New York City's population was 8,804,190 with a median income of $63,998 and 17.9% of the population living in poverty (United States Census Bureau, 2021a; United States Census Bureau, 2021b). Further, variances exist from one health insurance plan to the next with a $782 cash

price for a colonoscopy at the University of Mississippi Medical Center while the price of the same service under a Cigna plan was $1,463 and $2,144 under an Aetna plan (Kliff & Katz, 2021).

The compilation of such costs and their associated codes is referred to as a charge master, of charge description master (CDM), and each is unique to an individual facility (George Washington University, 2020). The databases were wrought with controversy due to arbitrary approach hospitals appeared to take and the often overinflated prices, such as $1,696 for skin glue to close a forehead cut (Rosenthal, 2013). An examination of the ratio between expenses and associated CDM rates at several Montana hospitals found CDM rates exceeded actual costs by 192 to 384%, though there had been no legal requirement associated with the relationship between chargemaster rates and actual costs (Wallack et al., 2020). Despite the lack of legislation related to chargemaster rates versus the actual cost of services, research had shown that the basis of contract law did not support the collection of charges listed in a CDM but, rather, it maintained that market-negotiated rates should be represented instead (Richman, 2017).

The more modern, value-based emphasis that had been placed on the U.S. health care system brought to light these cost-related issues that had lied just out of sight for most. Even so, as patients, or consumers, were brought into the cost containment equation the efforts aimed at them were not optimal. The implementation of the 2019 Centers for Medicare and Medicaid (CMS) Hospital Price Transparency Rule was an initial step toward consumer empowerment by making services more shoppable, but published CDM data failed to present the information most

pertinent to patients: total out-of-pocket costs and the availability of lower cost alternatives (Antos & Cram, 2021). The definition of shoppable services differed from study to study however CMS provided a definition that included all services that a consumer could have scheduled in advance (CMS, 2019).

Even with limited practical consumer use, similar price transparency tools saw little use within the first two years of implementation as only 3.5% of Aetna subscribers used the insurer's Member Payment Estimator tool (Sinaiko & Rosenthal, 2016). Price transparency assumed payments were aligned with the fee-for-service (FFS) model and related regulations were not aligned with CMS incentives that encouraged the consideration of value-based payment initiatives in long-term strategies (Ehnes, Dauner, & Dougherty, 2020).

The purpose of this research has been to analyze the effect of the 2019 Centers for Medicaid and Medicare Services (CMS) Hospital Price Transparency Rule on the ability of health care consumers to shop for hospital services, as well as to examine the effect of the 2019 CMS Rule on the chargemaster billing rates for hospital services.

METHODOLOGY

The primary hypothesis of this study was: consumers' ability to shop for hospital services increased after the implementation of the 2019 CMS Hospital Price Transparency Rule. A secondary hypothesis was: the implementation of federal hospital price transparency regulations decreased the chargemaster billable rates for hospital services.

The methodology for this research study was a qualitative study with several methodologies that included a literature review and a semi-structured interview with an employee in revenue cycle management at a hospital in Huntington, West Virginia. The interview was conducted in March 2022 and audio was recorded, transcribed, and audio was destroyed after transcription. Information gathered from the interview will supplement the information presented in the literature review. The employee will be referred to as "expert" throughout the presented research. The interview was conducted in a face-to-face manner and Institutional Review Board approval was obtained prior to the interview being scheduled.

Critical terms identified when the research was conducted included: 'chargemaster' OR 'charge description master' OR 'CDM' AND 'price transparency' OR 'CMS hospital price transparency rule' OR 'price regulations' AND 'shoppable services' OR 'consumer shopability'. These keywords were criteria for inclusion in the study. Research articles, journals, peer-reviewed literature, and news publications were located using the PubMed, Journal of the American Medical Association (JAMA), Health Affairs, EBSCOHost, Google Scholar, and the National Center for Biotechnology Information and the National Center for Biotechnology Information (NCBI) databases. The Google search engine was utilized to research published chargemaster price rates and to review research from government based and associated websites such as those from the United States Census Bureau and the Centers for Medicare and Medicaid Services.

The search identified 73 relevant articles and those that did not meet the inclusion criteria were excluded (N=52). Articles were included (N=8) if they described the application of price transparency tools and regulations in a health care setting: articles from other sources (N=13) were also included in this search. The articles were limited to the English language and were published from the years of 2013 through 2021. The information gained from these articles, websites, and journals were used as the sources of primary and secondary materials. Following the review of relevant abstracts, these _ articles were subject to full-text review, and 21 citations were used for data abstraction and analysis. Only 8 references were used in the results section (See Figure 1). This search was completed by AD and validated by AC who acted as second reviewer and double-checked if the references met inclusion criteria of the research study.

RESULTS

Increased Shopability

Shoppable services included a total of 300 hospital services, 70 of which were core services selected by CMS and 230 were chosen by individual hospitals (White & Liao, 2021; Cram, Cram, Antos, Sittig, Anand, & Li, 2021). An analysis of counterfactual simulations presented in an empirical model implied out-of-pocket costs declined by 7.6% and insurer costs declined by 3.5% in the presence of a consumer-accessible price transparency website (Brown, 2019). Despite the implementation of the 2019 CMS Hospital Price Transparency Rule and the financial penalties associated with non-compliance a 2021 study found 83 of 100 randomly sampled hospitals were non-compliant with at least 1 major requirement (Gondi, Beckman, Ofoje,

Hinkes, & McWilliams, 2021). The average number of beds in the sample group was 147 and the hospital type leaned towards teaching facilities (**Table**).

Decreased Chargemaster Billing Rates for Hospital Services

An interview with an operating-room nurse at Scripps Memorial Hospital in Encinitas, CA revealed price markups on surgical supplies ranged from 575 – 675% (Lazarus, 2021b). In this instance sutures that held a base per unit cost of $19.30 were billed at $149.58, a 675% markup that was applied when the supply was logged into the facilities software, Epic (Lazarus, 2021b). This situation was not the only of its kind and further evidence existed that indicated the problem existed within other areas of health care as well. Lazarus explored a similar situation in which a patient was charged $800 for a foot boot after she suffered a broken foot and later found the same product, an AirCast AirSelect boot, for one-tenth of the price, $80, on Amazon.com, a popular online retailer (2021a). Though facilities often cite overhead-related costs as justification for markups but there was a lack of sufficient evidence to support such claims. There were, however, several studies that cited the inconsistencies in chargemaster prices across facilities (Kurani, Ramirez, Hudman, Cox, & Kamal, 2021) (Figure 3).

Some experts asserted that the lack of a substantial penalty for non-compliant facilities discouraged full compliance with the Rule. The maximum penalty associated with non-compliance is $300 per day for an entire hospital which totaled $109,500 per year but CMS retained the ability to revisit the penalty at a later time if necessary (Wheeler & Taylor, 2021).

Though this amount would be significant to an individual it was the equivalent of seven cesarian-section procedures to most hospitals (Wheeler & Taylor, 2021).

DISCUSSION

The purpose of this research was to analyze the effect of the 2019 Centers for Medicaid and Medicare Services (CMS) Hospital Price Transparency Rule on the ability of health care consumers to shop for hospital services, as well as to examine the effect of the 2019 CMS Rule on the chargemaster billing rates for hospital services. The results of the literature review and interview with a revenue cycle management expert have demonstrated that federal price transparency regulations has not had a positive effect on the Shopability of services for healthcare consumers and has not caused the cost of hospital services to decrease.

The literature review was limited due to the restrictions associated with the search strategy which included, but was not limited to, the number of type of databases used. Several potential instances of bias exist within the review as well, including publication bias, researcher bias, and participant bias. Shoppable services and the rising cost of healthcare in the United States produced much research related to root causes of the country's high cost of care but research around the efficacy of federal price transparency regulations on health care consumers. The timeliness of the topic and recency of the enforcement of the 2019 CMS Hospital Price Transparency Rule contributed to the lack of adequate evidence to support a definitive conclusion.

CONCLUSION

Price transparency for hospital services acted as a step in the right direction for consumer empowerment but further research is needed to explore the implications and efficacy of existing regulations.