American Medical Association Journal of Ethics

November 2015, Volume 17, Number 11: 1046-1052

STATE OF THE ART AND SCIENCE

The Challenge of Understanding Health Care Costs and Charges

Vineet Arora, MD, MAPP, Christopher Moriates, MD, and Neel Shah, MD, MPP

Health care prices are opaque, and patients and clinicians are equally in the dark about them. As Americans enroll in high-deductible health plans at unprecedented rates, the affordability of health care has received significant attention [1]. In 2015, "how much does it cost?" is an increasingly familiar question from clinical trainees. The problem is that right now it is not clear who has the answers. The costs of delivering care are obscured in layers of jargon and complex accounting [2].

Speaking the Same Language: Health Care Cost Terms

The first step in understanding health care costs is to be able to distinguish between terms such as "cost," "charge," "price," and "reimbursement" (table 1).

Table 1: Defining Costs, Charges, and Reimbursement (adapted from *Understanding Value-Based Healthcare* [3])

Term	Definition
Cost	To providers: the expense incurred to deliver health
	care services to patients.
	To payers: the amount they pay to providers for
	services rendered.
	To patients: the amount they pay out-of-pocket for
	health care services.
Charge or price	The amount asked by a provider for a health care
	good or service, which appears on a medical bill.
Reimbursement	A payment made by a third party to a provider for
	services. This may be an amount for every service
	delivered (fee-for-service), for each day in the
	hospital (per diem), for each episode of
	hospitalization (e.g., diagnosis-related groups, or
	DRGs), or for each patient considered to be under
	their care (capitation).

These terms have specific meanings, but their interpretation often depends on whose perspective is being considered. To patients, cost usually represents the amount they have to pay out-of-pocket for health care services. This cost is very different from the amount that providers (i.e., health care organizations or clinicians) incur to deliver that

service. Further complicating matters, the cost to the provider is often calculated by including costs from categories like personnel and equipment that may seem disconnected from an individual patient's care.

The need for all of this terminology reflects the complexity of health care transactions. This complexity is largely a product of having multiple participating parties—the patient, the provider organization, and the "third-party" payer (insurer). Sometimes, a fourth party, such as a large employer that offers health insurance as a benefit (often referred to as the "purchaser"), is also involved. When discussing health care costs, it is important to ensure that the correct terminology is being used and that it is clear from whose perspective costs are being considered (i.e., payer, patient, provider, or purchaser).

So, how do costs relate to the "charge," or the "price," that health care providers put on the bill? Well, unfortunately, often there is no clear relationship. The relationship would be clearer and costs-per-service more easily calculated if costs were assigned to categories such as "patient check-in" and "collecting history" [4]. Although this is not impossible, it would be a lot of work, requiring direct observation of each "labor input," i.e., the number of person-hours involved in completing each task for an episode, as well as accounting for the costs of space, nonconsumable equipment, and administrative overhead on a minute-to-minute basis. Very few provider organizations are willing to put in this kind of effort.

Most hospitals have a "chargemaster," an itemized list of prices, similar to a restaurant menu [5]. Health care facilities often set chargemaster prices at many times the amount for which they are reimbursed or paid by insurers. While this may sound strange at first, it allows hospitals to set a high starting point for ensuing closed-door bargaining with different commercial insurers and very high charges for the small fraction of self-pay patients who can and will pay the chargemaster or "sticker" price. (Of course, the group of "self-pay" patients is heterogeneous. While it may include the wealthiest of patients who seek care regardless of the price, it also includes those who lack insurance altogether, such as illegal immigrants.)

What Do Patients Actually Pay?

Most patients have health insurance and, as a result, are not paying the full charge on the bill but, instead, a "copayment" (i.e., a fixed small amount for a given service, often paid at the time it is received) or a percentage of the charge, depending on their insurance plans [6]. This makes life fairly challenging for anyone trying to answer the question, "Doc, how much is this going to cost me?" Even if the doctor knew the charge, he or she would be unlikely to know the specifics of a particular patient's insurance plan. The amount that a patient may owe is further affected by the setting or location of the health care good or service. For example, Medicare patients often pay a deductible of \$1,260 for acute hospitalization, and then Medicare covers the rest up to 60 hospital

days. But if a Medicare patient is seen in the emergency department and not admitted, or is "kept under observation status," he or she is technically an outpatient, for which the copayment for hospital services may be as much as 20 percent of the total charge... so you can see how difficult it might be to predict what a given patient will pay for a particular intervention or treatment episode [7, 8].

The Price Transparency Movement

There is currently a national movement to make charges easily available to patients—an idea often referred to as "price transparency." This movement has been made possible in recent years by a variety of new websites and tools that provide information directly to patients about the charges that they could face.

In February 2013, *Time* magazine published an exposé on health care costs, "Bitter Pill: Why Medical Bills are Killing Us," by journalist Stephen Brill [9]. Shortly after, the then-Secretary of the Department of Health and Human Services, Kathleen Sebelius, took the unprecedented step of making available online the 2011 chargemaster prices of the 100 most common inpatient treatment services of all hospitals that treat Medicare patients [10]. This enabled Medicare patients, for the first time, to compare the prices of procedures across hospitals in their areas. This data also confirmed what several recent studies have demonstrated: there is wide variation in the prices of tests and procedures, even in the same geographic location [11].

Other websites use a variety of methods, including crowdsourcing, to identify the prices of health care goods and services. For example, at HealthcareBlueBook.com, one can search for the lowest prices for health care goods or services based on zip code [12]. Fairhealth.org, which makes available to clients a database of doctors' fees contributed by payers nationwide, grew out of a legal investigation in New York into how insurance companies were setting reimbursements for out-of-network services [13, 14]. Castlighthealth.com contracts with employers to provide their employees access to prices of health care goods and services covered by the company-sponsored insurance. Its initial public offering received a valuation of more than \$3 billion, reflecting the keen interest in this burgeoning area [15].

There is also great interest within health care in using the electronic health record (EHR) to display prices for various goods and services to physicians and physicians-in-training. Initial studies of this strategy showed mixed results, and the conventional wisdom became that prices in the EHR quickly turn into "white noise" that is ignored [16, 17]. However, more recent studies have found that clinicians are now more likely to react to price information [18, 19], perhaps due to the recent global attention to the importance of health care costs. In one controlled study at Johns Hopkins, displaying the Medicare Allowable Rates for lab tests to hospital physicians in the order-entry system led to substantial decreases in orders for certain higher-cost lab tests and resulted in a more-

than-\$400,000 net cost reduction over the course of a six-month intervention period [18]. Similarly, a study using dollar signs (\$-\$\$\$) to indicate the relative costs of antibiotics on culture and antibiotic susceptibility testing reports resulted in a significant decrease in prescriptions for high-cost antibiotics [19].

What Can Physicians Do?

While price transparency is an important element of helping patients receive more affordable care, it may be unreasonable to expect clinicians to master the specific details of what each patient may pay, particularly given the large number of plans and reimbursement rates set by insurance companies.

So, what should physicians do? While there may be an understandable initial instinct to throw our hands up [20], we propose an alternative strategy.

First, we physicians should take ownership of <u>our clinical decisions</u> and make sure they are actually going to make our patients better. Currently, more than one-third of the health care services we deliver do not help patients get better [21], so there is clearly room for improvement. For those looking for a place to start, the <u>Choosing Wisely</u> campaign has convened an unprecedented collaboration among numerous medical specialty societies to identify lists of wasteful practices, i.e., those that provide little clinical benefit [22].

In addition, doctors can and should play a role in <u>screening</u> patients for financial harm. Simple questions like "Do you have difficulty paying for your medications?" have been shown to help identify patients at risk for cost-related nonadherence [23]. Having a conversation with a patient about his or her finances is more likely to result in switching the patient to a cheaper alternative prescription drug [24]. Even if these conversations are uncomfortable and even if you don't have all the answers, simply being aware of your patients' financial concerns is a critical starting point.

Although the costs may not always be clear, and the price may not always be "right," doctors still have an ethical obligation to "do no harm" by reducing waste and identifying and helping patients who are at risk for financial harm [25].

References

- 1. Wharam JF, Ross-Degnan D, Rosenthal MB. The ACA and high-deductible insurance—strategies for sharpening a blunt instrument. *N Engl J Med.* 2013;369(16):1481-1484.
- 2. Reinhardt UE. The pricing of US hospital services: chaos behind a veil of secrecy. *Health Aff (Millwood).* 2006;25(1):57-69.
- 3. Moriates C, Arora V, Shah N. *Understanding Value-Based Healthcare*. New York, NY: McGraw-Hill; 2015:27-28.

- 4. Kaplan RS, Anderson SR. Time-driven activity-based costing. *Harvard Business Review.* 2004;82(11):131-138. http://hbr.org/2004/11/time-driven-activity-based-costing/ar/1. Accessed September 4, 2013.
- 5. Reid G. Defending the chargemaster. *Healthcare Finance News*. October 20, 2013. http://www.healthcarefinancenews.com/news/defending-chargemaster?page=1. Accessed April 12, 2014.
- 6. Centers for Disease Control and Prevention. FastStats: health insurance coverage. http://www.cdc.gov/nchs/fastats/health-insurance.htm. Accessed September 24, 2015.
- 7. Sheehy AM, Graf BK, Gangireddy S, Formisano R, Jacobs EA. "Observation status" for hospitalized patients: implications of a proposed Medicare rules change. *JAMA Intern Med.* 2013;173(21):2004-2006.
- 8. Perreault M. Medicare premiums and deductibles for 2015. *Medicare.com.* https://medicare.com/about-medicare/medicare-premiums-deductibles-2015/. Accessed September 24, 2015.
- 9. Brill S. Bitter pill: why medical bills are killing us. *Time*. April 4, 2013. http://www.time.com/time/magazine/article/0,9171,2136864,00.html. Accessed May 9, 2013.
- Brill S. An end to medical-billing secrecy? *Time*. May 8, 2013.
 http://swampland.time.com/2013/05/08/an-end-to-medical-billing-secrecy/.
 Accessed May 9, 2013.
- 11. Hsia RY, Akosa Antwi Y, Nath JP. Variation in charges for 10 common blood tests in California hospitals: a cross-sectional analysis. *BMJ Open.* 2014;4:e005482.
- 12. Mathews AW. Lifting the veil on pricing for health care. *Wall Street Journal*. October 28, 2009.
 - http://online.wsj.com/news/articles/SB100014240527487042227045744996 23333862720?mg=reno64-
 - wsj&url=http%3A%2F%2Fonline.wsj.com%2Farticle%2FSB100014240527487042 22704574499623333862720.html. Accessed May 12, 2014.
- 13. Bernstein N. Insurers alter cost formula, and patients pay more. *New York Times*. April 23, 2012. http://www.nytimes.com/2012/04/24/nyregion/health-insurers-switch-baseline-for-out-of-network-charges.html. Accessed May 12, 2014.
- 14. Kates W. "FAIR Health" database will allow people to compare health care costs. *Huffington Post*. March 18, 2010.
 - http://www.huffingtonpost.com/2009/10/27/fair-health-database-will_n_335773.html. Updated May 25, 2011. Accessed May 12, 2014.
- 15. De Brantes F. Why don't all health plans work like Castlight? *Modern Healthcare*. March 29, 2014.
 - http://www.modernhealthcare.com/article/20140329/MAGAZINE/303299942. Accessed June 8, 2014.

- 16. Bates DW, Kuperman GJ, Jha A, et al. Does the computerized display of charges affect inpatient ancillary test utilization? *Arch Intern Med.* 1997;157(21):2501-2508.
- 17. Goetz C, Rotman SR, Hartoularos G, Bishop TF. The effect of charge display on cost of care and physician practice behaviors: a systematic review. *J Gen Intern Med.* 2015;30(6):835-842.
- 18. Feldman LS, Shihab HM, Thiemann D, et al. Impact of providing fee data on laboratory test ordering: a controlled clinical trial. *JAMA Intern Med*. 2013;173(10):903-908.
- 19. Newman KL, Varkey J, Rykowski J, Mohan AV. Yelp for prescribers: a quasiexperimental study of providing antibiotic cost data and prescription of high-cost antibiotics in an academic and tertiary care hospital. *J Gen Intern Med*. 2015;30(8):1140-1146.
- 20. Tilburt JC, Wynia MK, Sheeler RD, et al. Views of US physicians about controlling health care costs. *JAMA*. 2013;310(4):380-388.
- 21. Berwick DM, Hackbarth AD. Eliminating waste in US health care. *JAMA*. 2012;307(14):1513–1516.
- 22. Cassel CK, Guest JA. Choosing wisely: helping physicians and patients make smart decisions about their care. *JAMA*. 2012;307(17):1801-1802.
- 23. Kumar R, Farnan JN, Levy A, Shah N, Arora V. GOTMeDS? Designing and piloting an interactive module for trainees on reducing drug costs. Poster presented at: 36th Annual Meeting of the Society of General Internal Medicine; April 25-27, 2013; Denver, CO.
 - http://www.sgim.org/File%20Library/SGIM/Meetings/Annual%20Meeting/Meetingn%20Content/AM13%20presentations/Innovations-in-Medical-Education-Session-A.pdf. Accessed September 14, 2015.
- 24. Wilson IB, Schoen C, Neuman P, et al. Physician-patient communication about prescription medication nonadherence: a 50-state study of America's seniors. *J Gen Intern Med.* 2007;22(1):6-12.
- 25. Moriates C, Shah NT, Arora VM. First, do no (financial) harm. *JAMA*. 2013;310(6):577-578.

Vineet Arora, MD, MAPP, is an associate professor in the Department of Medicine at the University of Chicago. As director of GME (graduate medical education) clinical learning environment innovation, she works to integrate residents into the quality, safety, and value missions of the organization. She is also director of educational initiatives at Costs of Care and co-author of the book, *Understanding Value-Based Healthcare* (McGraw-Hill, 2015).

Christopher Moriates, MD, is an assistant clinical professor in the Division of Hospital Medicine at the University of California, San Francisco (UCSF). Dr. Moriates is the director of the Caring Wisely initiative for the UCSF Center for Healthcare Value and the director

of implementation initiatives for Costs of Care. He co-authored the book, *Understanding Value-Based Healthcare* (McGraw-Hill, 2015).

Neel Shah, MD, MPP, is an assistant professor at Harvard Medical School in Boston and a member of the associate faculty at the Ariadne Labs for Health Systems Innovation. He is also the founder and executive director of Costs of Care. He co-authored the book, *Understanding Value-Based Healthcare* (McGraw-Hill, 2015).

Related in the AMA Journal of Ethics

Physicians' Role in Protecting Patients' Financial Well-Being, February 2013

<u>The High-Value Care Considerations of Inpatient versus Outpatient Testing</u>, November 2015

Countering Medicine's Culture of More, November 2015

Cost Effectiveness in Clinical Screening, April 2011

Limiting Low-Value Care by "Choosing Wisely", February 2014

The Complex Relationship between Cost and Quality in US Health Care, February 2014

The viewpoints expressed in this article are those of the author(s) and do not necessarily reflect the views and policies of the AMA.

Copyright 2015 American Medical Association. All rights reserved. ISSN 2376-6980