

VIEWPOINT

Relative Value Units and the Measurement of Physician Performance

Michael Nurok, MBChB, PhD

Cardiac Surgery Intensive Care Unit, Division of Cardiothoracic Surgery, Cedars-Sinai Smidt Heart Institute, Los Angeles, California.

Bruce Gewertz, MD

Department of Surgery, Cedars-Sinai Medical Center, Los Angeles, California.



Author Audio Interview

In response to a need for a standardized language to describe medical services, the *Current Procedural Terminology (CPT)* coding system was created in 1966. This system persists today and is used by most payers to communicate standardized information about medical services.¹ In 1991, the Relative Value Scale Update Committee (RUC) was created by the American Medical Association to make recommendations about the relative value of physician work for Medicare and Medicaid beneficiaries based on CPT codes.¹ In 1992, Medicare began reimbursing hospitals and physicians based on the values established for services by the RUC, which are now used by both commercial and government payers.

Relative value units (RVUs) were designed to provide relative economic values for medical care based on the cost of providing services categorized as physician work, practice expense, and professional liability. Physician work accounts for approximately half of the relative value of a service and is based on the time it takes to perform the service, the technical skill and physical effort, the required mental effort and judgment, and the stress caused by the potential risk to the patient.¹ The relative value of each service is reassessed periodically

Physician performance measurement should be decoupled from RVU production, which, in fact, was never designed to assess professional behavior.

by the RUC and others to decide whether changes to the assigned value are needed as services evolve. For example, a service that once required hospitalization but now can be performed in the outpatient or clinic setting would have its relative value diminished, as would a procedure for which the time required to perform it has decreased. The government's reliance on the RUC recommendations has been criticized, as has the committee, for overvaluing the work of specialists compared with primary care physicians.²

RVUs were designed to provide a rational approach to assessing the relative value of medical services. They were not intended to function as the primary measure of a physician's performance. However, RVUs have become the dominant evaluation mechanism in many practice environments; financial compensation (bonuses in particular) are commonly linked to RVU production. Although there are few published data, it is believed the practice of using RVUs to measure productivity is widespread.³

The existence of financial incentives for physicians to provide more care, and more highly reimbursed care in particular, is the subject of much consternation. Evidence suggests that when performance is measured by RVUs, the number of RVUs generated tends to increase.⁴ Dissatisfaction with this linkage has led some organizations to transition away from RVU-based, fee-for-service reimbursement methods and toward alternative payment models that limit the incentive for more care and create a focus on providing better care at lower costs. Early data suggest that value-based payment systems may indeed reduce costs while maintaining or improving outcomes. For example, following implementation of the 2016 Centers for Medicare & Medicaid Services comprehensive care bundled payment program for joint replacements, Haas and colleagues⁵ observed reduced spending without significant changes in hospital length of stay, readmissions, complications, 30- or 90-day mortality, or volume of episodes relative to control hospitals not participating in the program.

In addition to the above rationale not to use RVUs as the primary measure of physician performance, there are equally compelling moral and professional argu-

ments. In simplest terms, a clinician's primary responsibility is to the patient. Clinicians also have important, if secondary, responsibilities to payers and the health care system in which they work. Assessing physician performance by RVUs monetizes the patient-physician relationship and incentivizes more, and not necessarily better, care. This focus can lead to higher costs for both payers and

the health care system. Further, the way that RVUs are calculated tends to deemphasize primary care, population health, and public health and tends to favor procedural specialties.²

Assessing performance based largely on RVUs also subtly disincentivizes clinicians from focusing on those behaviors that are essential to deliver better outcomes and lower costs. For example, a cardiac surgeon who cares for a complex heart failure population and spends hours coordinating with a cardiologist to create a definitive plan produces fewer RVUs and as a result may receive a smaller bonus than a cardiac surgeon who is not so collaborative and simply operates.

Other examples are numerous. The physician who volunteers, without extra compensation, for additional night shifts, when the ability to generate RVUs is lower than during the day; the clinician who regularly spends extra time exploring a patient's personal values in deciding what procedure should be done. Each of these activities benefits patients, colleagues, or both and also

Corresponding

Author: Michael Nurok, MBChB, PhD, Cardiac Surgery Intensive Care Unit, Division of Cardiothoracic Surgery, Cedars-Sinai Smidt Heart Institute, 127 San Vicente Blvd, Ste 3100, Los Angeles, CA 90048 (michael.nurok@cshs.org).

contributes to the kind of culture that modern health care systems need, yet such efforts are not reflected in additional RVUs attributed to the physician.

Talbot and Dean⁶ ascribe moral injury to “being unable to provide high-quality care and healing in the context of health care” and implicate the “complex web of providers’ highly conflicted allegiances—to patients, to self, and to employers” as one of its key drivers. Extending this observation, it is clear that incentive systems primarily based on RVUs to the exclusion of quality or value metrics are at variance with the underlying tenet of medicine as a profession unambiguously dedicated to the welfare of the patient and community. Such a construct, fundamentally at odds with the delivery of patient-centered care, predictably leads to the skepticism and disengagement of physicians, often termed “burnout.”

Although comprehensive data are lacking, the focus on RVU production appears to be equally prevalent in academic, multispecialty, and private practice settings, perhaps because of the way that discounted fee-for-service contracts currently make up for losses from other payers.⁷ Academic medical centers in particular, with their increasing reliance on clinical revenue to support their multiple non-clinical missions, may be especially conflicted.⁸

While it is understandable that health systems need a mechanism to match the amount of work with the required number of clinicians and that measures of both total available RVUs in that system and physician productivity may be helpful in this regard, RVUs should be only 1 component of the assessment of individual clinician performance and not the primary one. Most physicians are motivated to work hard and provide excellent care. The minority who are not seeing patients in a timely way or who do not appear to have enough work can be managed as exceptions, not the rule. Stated another way, incentive and compensation systems should not be developed to deal with the outliers but rather to incent positive behaviors and values for the largest group of physicians. This different and more complete view could properly focus performance measurement on the delivery of better outcomes at lower costs, thereby

aligning the interests of patients, physicians, and payers. Performance measurement could then be focused on contribution to the institutional mission using metrics such as standardized outcomes, patient experience, teamwork and collaboration with other colleagues and services, and, potentially, even cost of care. Incentives could be provided for both individual and team performance. The balance between these could be further weighed toward team performance in areas in which care is especially matrixed or complicated. As an example, yearly goals could be set that incorporate individual metrics, such as scores for patient satisfaction with office visits, and team-based metrics, such as adherence to a new care pathway. Incentives might include more resources or a monetary bonus for each individual and collective goal met.

Other positive effects of deemphasizing RVUs in performance measurement may be expected. While physicians are properly focused on trying to improve outcomes for their patients, cost has not historically been a focus of physicians’ care or responsibility. Evidence suggests that when provided with the right information and a system that prioritizes a focus on value, physicians can reduce costs.⁹ Other experiments with redesigned performance assessment systems that focus on more than just RVUs are under way. For example, Spectrum Health, a multispecialty medical group, developed a system-wide compensation and performance model focused on guiding principles.¹⁰

In sum, a change is overdue. The current model for measuring physician performance creates both an unattractive working environment for physicians and the potential of harm to patients from overtreatment. Physician performance measurement should be decoupled from RVU production, which, in fact, was never designed to assess professional behavior. With this approach, the medical profession could reorient from a focus on billing toward the patient-centered values that drive most people to enter medical school. This important adjustment has the potential to improve patient satisfaction and sustain physicians’ commitment to the highest professional ideals over the entirety of their careers.

ARTICLE INFORMATION

Published Online: August 5, 2019.
doi:10.1001/jama.2019.11163

Conflict of Interest Disclosures: Dr Nurok reported receiving stock options for his role as an adviser to Avant-Garde Health. No other disclosures were reported.

REFERENCES

- Jacobs JP, Lahey SJ, Nichols FC, et al; Society of Thoracic Surgeons Workforce on Coding and Reimbursement. How is physician work valued? *Ann Thorac Surg*. 2017;103(2):373-380. doi:10.1016/j.athoracsur.2016.11.059
- Gao YN. Committee representation and Medicare reimbursements—an examination of the Resource-Based Relative Value Scale. *Health Serv Res*. 2018;53(6):4353-4370. doi:10.1111/1475-6773.12857
- Satiani B. Use, misuse, and underuse of work relative value units in a vascular surgery practice. *J Vasc Surg*. 2012;56(1):267-272. doi:10.1016/j.jvs.2012.03.013
- Awad N, Caputo FJ, Carpenter JP, Alexander JB, Trani JL, Lombardi JV. Relative value unit-based compensation incentivization in an academic vascular practice improves productivity with no early adverse impact on quality. *J Vasc Surg*. 2017;65(2):579-582. doi:10.1016/j.jvs.2016.08.104
- Haas DA, Zhang X, Kaplan RS, Song Z. Evaluation of economic and clinical outcomes under Centers for Medicare & Medicaid Services mandatory bundled payments for joint replacements [published online June 3, 2019]. *JAMA Intern Med*. doi:10.1001/jamainternmed.2019.0480
- Talbot SG, Dean W. Physicians aren’t “burning out”: they’re suffering from moral injury. STAT website. <https://www.statnews.com/2018/07/26/physicians-not-burning-out-they-are-suffering-moral-injury/>. Published July 26, 2018. Accessed July 24, 2019.
- Schulman KA, Milstein A. The implications of “Medicare for all” for US hospitals. *JAMA*. 2019;321(17):1661-1662. doi:10.1001/jama.2019.3134
- Johnston SC. Academic medical centers: too large for their own health? *JAMA*. 2019;322(3):203-204. doi:10.1001/jama.2019.6834
- Lee VS, Kawamoto K, Hess R, et al. Implementation of a value-driven outcomes program to identify high variability in clinical costs and outcomes and association with reduced cost and improved quality. *JAMA*. 2016;316(10):1061-1072. doi:10.1001/jama.2016.12226
- Wolk S, Apple D. Building a better physician compensation and performance model. *NEJM Catalyst*. September 13, 2017. <https://catalyst.nejm.org/building-a-better-physician-compensation-and-performance-model/>. Accessed July 24, 2019.