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The Next Generation of Physician Report Cards

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Almost a century ago, staff surgeon Ernest Amory Codman called for measurement and reporting outcomes in medicine [1]. Today, debate continues about selecting meaningful metrics, appropriately adjusting for patient risk, and determining what data to report publicly. As the leading cause of death in the United States and a major contributor to health care spending, cardiac disease is a logical target for outcomes measurement [2].

The Beginning of Public Reporting

Public reporting of cardiac surgery outcomes began with New York State Commissioner of Health David Axelrod's concern over a substantial variation in mortality rates following coronary artery bypass surgery (CABG) [3]. Due to inadequate data collection, it was unclear what caused this variation in outcomes. Learning from the shortcomings of the Health Care Finance Administration (now the Centers for Medicare and Medicaid Services) mortality rates initially published in 1986—specifically, failure to adjust adequately for patient risk [4]—New York opted to create a different kind of registry that accounted for patient risk factors [3]. Data from the New York State registries were published in *JAMA* and *The New York Times* in 1990 [5, 6]. Due to a lawsuit brought by *Newsday* newspaper citing New York's Freedom of Information Law, surgeon-specific mortality rates were released to hospitals and the public in late 1991. Initially, to ensure adequate statistical power, surgeon-specific data were collected only for surgeons who had more than 200 cases in three years [7].

The Initial Impact of Public Reporting

The release of surgeon-specific data resulted in New York hospitals' restricting privileges for low-volume surgeons, who collectively had a risk-adjusted CABG mortality rate of 11.9 percent (the statewide rate was 3.1 percent at the time) [8]. A subsequent study found that a substantial number of the surgeons with the highest risk-adjusted mortality rates had ceased performing CABGs by 1996 [9].

Studies that examined the impact of public reporting of post-CABG mortality showed a decrease in in-hospital mortality from 3.52 percent to 2.78 percent in New York between 1989 and 1992 [10] and found that the numbers were not skewed by surgeons' referring high-risk patients out-of-state—the percentage of out-of-state transfers actually decreased during the study period [11]. Two years after the release of the New York CABG outcomes, Pennsylvania followed suit and also saw a decrease in in-hospital

mortality from 4.9 percent to 3.8 percent between 1991 and 1995 [12]. Overall, the initial impact of public reporting on CABG outcomes was positive.

Despite the positive CABG outcomes, New York physicians' use of outcome-related report cards was limited—surveys in 1997 and 2001 indicated that a majority of cardiologists (57 percent) did not rely on report card data or (71 percent) share it with patients [13, 14].

Physician Report Cards for Value-Based Care

With the shift in reimbursement models from fee-for-service to fee-for-performance, we have entered a new era for physician report cards. The Physician Quality Reporting System collects data on quality measures that are reported publicly on the Physician Compare website [15] (established by the Centers for Medicare and Medicaid services—CMS—in 2010, as required by the Affordable Care Act) [16]. Currently, the website provides specific performance data for group practices and accountable care organizations (ACOs) and identifies individual physicians who are participants in quality improvement initiatives [16].

Report cards are also branching out into new, non-outcome-based measures of care quality. CMS's Hospital Value-Based Purchasing program uses various measures of quality—including patients' hospital experience, as measured by the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey—to calculate hospital payments [17]. In 2012, the University of Utah launched an online physician review tool. Initially, physicians privately received their own patient experience reviews and were encouraged to use the information to improve. The next step of the program allowed review of the data by their physician colleagues to compare performance and encourage competition. Finally, individual physicians' report cards from patients were publicly released on the University of Utah's website. This transparency initiative led to a substantial improvement—from the 18th percentile to the 90th percentile—in the health system's ranking for patient satisfaction [18]. The University of Utah recognized the importance of transparency and encouraged both physician and patient engagement to achieve meaningful improvement in patient satisfaction.

Conclusion

Physician report cards have evolved substantially from the first publicly reported, surgeon-specific post-CABG morbidity and mortality rates in New York. With the increasing collection of quality data and intent to publicly report on physician quality metrics, we are entering an era in which physicians will be held accountable for their patients' outcomes and patients will have more information readily available to make informed clinician selections. In the coming years, it will become increasingly important for physicians to understand and appropriately discuss the available report cards with patients. Nearly one century later, Dr. Codman's pleas for transparency have come to

fruition.

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