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DIGGING DEEP: TEACHING HOSPITALS AND PAY FOR PERFORMANCE

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The past two decades have seen increasingly sophisticated efforts to quantify and report the quality of hospital care. More recently, payors have begun tying payments to hospital performance, with two of the most visible examples being the Centers for Medicare and Medicaid Services (CMS) Value Based Purchasing program and the readmission reduction provision of the Affordable Care Act^{1,2}. The stakes are high for hospitals, with millions of dollars of CMS payments at risk, and administrators, clinicians, and researchers are attempting to understand the financial implications of these programs and their potential impact on health care delivery.

In this context, Mueller and colleagues investigated the association between hospital teaching status and a range of performance measures that are incorporated into CMS's pay-for-performance programs, including a composite of process measures, 30-day mortality, and 30-day readmission rates for acute myocardial infarction, heart failure, and pneumonia³. Among 2418 hospitals included in the analysis, few were classified as medium (116, 4.8%) or high teaching intensity teaching institutions (n=80, 3.8%). Performance on process measures was, overall, excellent, with little variation by teaching intensity. In contrast, 30-day mortality and readmission rates varied modestly by teaching intensity, though in opposite directions. Medium and high intensity teaching hospitals had lower 30-day mortality, but higher 30-day readmission rates than non-teaching and lower intensity teaching hospitals. Drilling down on these findings, the authors suggest that differences in readmission rates, but not mortality rates, were influenced by hospitals' patient mix as measured by both hospital safety-net status and the proportion of dual-eligible patients.

The authors express concern that tying payments to performance on the readmission measures may compromise the educational mission of these hospitals. Noting that teaching

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hospitals often serve as a safety net for underserved populations, they speculate that the potential loss of revenue associated with value based purchasing programs will unduly strain the already precarious financial status of these hospitals. This might be the case if medium and high intensity teaching hospitals performed uniformly poorly on process and outcomes measures. However, the observed differences on performance measures were not consistent, and poor performance on readmission measures may be at least partly offset by good performance on mortality measures. Understanding the actual implications of pay for performance programs would require modeling to provide a complete picture of how penalties would be assessed across categories of hospital teaching intensity. Nevertheless it is not a given that teaching hospitals will uniformly suffer significant financial penalties when judged by their performance on quality measures.

The results of Mueller and colleagues are topical but reductive, focusing only on average differences in across hospital categories. The fact of the matter is that national readmission rates are unacceptably high, and almost all hospitals have room to improve regardless of teaching status. In addition, this approach ignores the likelihood that there is more variation in performance within categories of hospitals than across them. Consider the association between socioeconomic status and heart failure readmission (figure)⁴. The median risk standardized heart failure readmission rate at hospitals caring for a high proportion (>40%) of dual eligible patients is 0.8% higher than that of hospitals caring for fewer dual eligible patients (15%). However, these differences are dwarfed by differences in readmission rates within hospitals categories. Similar findings have been shown for safety-net hospitals⁵. Mueller and colleagues did not examine heterogeneity in performance within categories of hospital teaching intensity, but it is reasonable to expect they would follow a similar pattern.

The insight is that a hospital's performance is not determined by its characteristics. Specific hospital characteristics may be associated with differences in performance, but they are only a small piece of a much more complicated story. If hospitals are going to improve patient outcomes, we need to truly understand the reasons why some hospitals succeed and others struggle. A promising approach to this problem lies in the use of mixed methods research. Combining qualitative and quantitative methodologies, investigators have successfully identified the organizational strategies and enabling strategies associated with better hospital performance on both process and outcomes measures^{6,7}. This work is challenging and resource intensive, but ultimately provides a path forward by generating the evidence that will allow hospitals to improve. As the D2B Alliance demonstrated for efforts to reduce delays in primary angioplasty, disseminating this knowledge through the creation of communities of clinicians and hospitals can lead to truly spectacular improvements in the quality of care⁸.

The suggestion that teaching hospitals must choose between fulfilling their educational mission and doing well on performance measures is a false dichotomy that assumes teaching hospitals are incapable of digging deeper and leading efforts to improve patient outcomes. Historically, teaching hospitals have been the leaders of innovation in medicine, and there is no reason to think that they cannot meet the challenges posed by value based purchasing. Risk standardized readmission rates represent a new way of assessing hospital quality, reflecting both the care provided during the hospitalization and the quality of care transitions. To improve readmission rates, teaching hospitals will have to evolve, but they will not need to abandon their commitment to house staff education. Instead, they will need to dig into the measures and retool their curriculum, providing house staff with a comprehensive education about quality improvement and teaching them the skills needed to allow their patients to make a seamless transition from the inpatient to the outpatient setting.

The health care environment is changing rapidly, and it may be years before we fully understand the consequences of these changes. Nevertheless, the challenges posed by pay for performance programs are clear, and the opportunity and responsibility of meeting these challenges falls to all hospitals regardless of their teaching status.

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Figure.

Hospital heart failure risk standardized readmission rates from 2007 through 2009 stratified by the proportion of Medicare patients also enrolled in Medicaid. The line in the shaded box represents the median value, and the shaded box the interquartile range. Reproduced with permission. Accessible at <http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HospitalQualityInits/Downloads/HospitalChartBook2011.pdf>