Anesthesiologists and the Transformation of the Healthcare System

A Call to Action

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Editor's Note: This is the second in a series of six editorials on the changing definitions of safety across the perioperative period and how anesthesiologists can participate in and lead the transformation of health care with focus on patient value.

WITH the enactment of the Affordable Health Care Act, the federal government is aggressively seeking to bend the healthcare cost curve by embracing a shift from a volume-based (fee-for-service) to a value-based payment system.[1] Now is the time for anesthesiologists, as perioperative physicians, to take an active role in shaping future delivery systems and payment models for perioperative care. It is imperative, both for our specialty and for our patients, that anesthesiologists help shape efforts to reengineer perioperative care to achieve better outcomes at lower cost. The U.S. healthcare system is at a cross-road. We can no longer accept the notion that traditional fee-for-service model will lead to the correct incentives for high value care. We can no longer accept the fact that medical errors are the eight leading cause of death in the United States.[2] Anesthesiologists cannot afford to continue to sit on the sidelines of healthcare reform. We need to become not just participants, but leaders in promoting changes that will benefit our patients and our specialty. In this white paper, we describe ongoing federal initiatives to reengineer the healthcare system to lower costs and improve quality, identify some of the challenges and opportunities facing anesthesiology during this transformation, and finally, discuss the need for a partnership between anesthesiologists and surgeons to spearhead the development of patient-centered, team-based performance measures for surgical patients.

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The Center for Medicare and Medicaid Services (CMS) Value-Based Purchasing[3] explicitly links hospital and physician compensation to the quality of healthcare outcomes. This strategy aims to simultaneously address the two most pressing problems in health care—quality and cost. Performance measurement is at the heart of this radical reengineering of the healthcare system. Initially, quality was assessed using process measures, as opposed to outcome measures, because of concerns over the adequacy of risk adjustment. Payment was linked solely to participation in the submission program with the annual hospital Medicare update being at risk. The Hospital Value-Based Purchasing began in fiscal year (FY) 2013 with measurement of 12 clinical processes of care measures (acute myocardial infarction, heart failure, pneumonia, and the Surgical Care Improvement Project [SCIP]) and eight Patient Experience of Care dimensions of the Hospital Consumer Assessment of Healthcare Providers and Systems survey. All hospitals had a withhold of payment beginning at 1% in FY 2013 and rising to 2% by FY 2017. The money that is withheld will be redistributed to hospitals based on their Total Performance Scores, and the actual amount earned by hospitals will depend on the actual range and distribution of all eligible/participating hospitals. A hospital may earn back a value-based incentive payment percentage that is less than, equal to, or more than the withhold for that program year. Beginning in FY 2014, 30-day outcome mortality measures will be added for acute myocardial infarction, heart failure, and pneumonia. In FY 2015, a patient safety indicator, the rate of

Image: J. P. Rathmell.

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health care–associated infection, and an efficiency measure (Medicare spending per Beneficiary) will be added.

Hospital results are posted to the Hospital Compare Web site.* The majority of research has shown that these Web sites are not used by patients to determine site of care, but may confirm decisions regarding care and help drive improvement through competition between providers. The development of SCIP predated the implementation of hospital incentives for reporting. SCIP began as a voluntary initiative between multiple federal agencies, The Joint Commission, the American College of Surgeons (ACS), the American Society of Anesthesiologists, and other stakeholders to improve perioperative care by promoting the adoption of evidence-based measures. Although there remains controversy regarding the effectiveness of SCIP measures, analysis of the raw data suggests that the process of implementing SCIP measures has reduced complications and mortality.[4] Of note, CMS intends to transition their focus from process to outcomes measures. In the FY 2014 Hospital Value-Based Purchasing Program, there will be three 30-day mortality measures in the outcome domain. Also, CMS and the National Quality Forum have focused on patient-centered outcome in addition to medical outcomes for future measurement. This can be observed in the increasing importance of the Hospital Consumer Assessment of Healthcare Providers and Systems surveys in payment.

In parallel to the hospital payment system, CMS enacted a physician incentive system—the Patient Quality Reporting System. In FY2013, physicians are eligible to receive up to 0.5% of the total physician fees. Importantly, the program will change in FY 2015 to a payment adjustment (reduction) to physicians who do not satisfy specific quality metrics. Currently, anesthesiologists have a very limited number of measures for which they can report:

—Measure #30 Perioperative Care: Timely Administration of Prophylactic Parenteral Antibiotics
—Measure #76 Prevention of Catheter-Related Bloodstream Infections
—Measure #193 Perioperative Temperature Management

The temperature measure is currently under revision to transition from a process measure (credit for placement of a forced-air warmer) to an outcome measure (maintenance of a specific temperature), and there is concern that the antibiotic timing has achieved near uniform success, and therefore no longer needs to be measured. Therefore, new more important measures of anesthesia quality are needed.

Although current pay-for-performance initiatives represent only a small fraction of healthcare compensation, it is likely that incentive payments will rise dramatically if future payment models are tied to quality metrics. The leadership (David Hoyt, M.D. [Chair, Department of Surgery, University of California, Irvine, CA] and Frank Opelka, M.D. [LSU Executive Vice President for Healthcare Redesign, LSU Health Science Center, New Orleans, LA]) of the ACS, in their testimony before Congress in July 2012, advocated a new ACS Medicare physician payment reform proposal—the "Value-Based Update"[5]—to replace the existing Medicare Sustainable Growth Rate. They proposed that Medicare fee updates should be tied to quality-of-care measured using condition-specific (*e.g.*, cancer care, cardiac care, and digestive diseases) risk-adjusted quality metrics. In the course of their testimony,[6] the ACS leadership praised the ACS National Surgical Quality Program as an ACS-sponsored initiative that if "expanded to the nation's more than 4,000 hospitals that perform surgery, [could] prevent millions of complications, save thousands of lives, and recoup billions of dollars each year." The ACS leadership appears to be recommending that ACS National Surgical Quality Program be used as the performance measurement infrastructure for setting future Medicare fee increases for surgical patients.

There is no doubt that the robust risk-adjusted quality metrics developed by ACS, using clinical data, are superior to measures based on administrative data that are currently publicly available on Hospital Compare. Administrative data are routinely collected for billing purposes, but were not designed for the purposes of risk adjustment, and are frequently inaccurately coded.[7] Hospital performance differences measured using administrative data may reflect differences in coding practices across hospitals, rather than true differences in quality. As a specialty, anesthesiology does not yet have a robust clinical data infrastructure or a broad set of risk-adjusted outcome measures which can be used to judge the value of our services to our patients.

Not only do we not yet have the means to measure our performance, but also there is no consensus within the anesthesiology community as to how to even measure our performance and value as perioperative physicians. Many anesthesiologists are not yet convinced that they should be accountable for major patient outcomes—such as mortality and major complications—that can be attributed to surgeons and other healthcare providers. Many may think "Why should an anesthesiologist be held responsible for bad surgical outcomes that may be due to surgeon complications?" Some would prefer to take responsibility only for rare serious complications that can only be attributed to anesthesia care—aspiration on induction, failed intubations, cardiac arrest after induction—and more common anesthesia-related, but less serious complications, such as postoperative nausea and vomiting, nerve injury after regional anesthesia, and postdural puncture headaches. However, extremely rare events, such as cardiac arrest on induction, cannot be used for performance measurement because quality metrics based on very rare events lack the statistical power to distinguish between high-quality and low-quality anesthesiologists. Using only postoperative nausea and vomiting as a major quality measure trivializes the importance of anesthesiology as a field of medicine. Do any of us not believe that good anesthesia care reduces the risk of perioperative myocardial infarctions, stroke, kidney injury,

* Available at: www.hospitalcompare.hhs.gov. Accessed January 10, 2013.

and death? If we remain unwilling to accept accountability for surgical outcomes, we risk trivializing anesthesiology as a medical specialty, and we will lose the opportunity to join our surgical colleagues as equal partners in the planning of new healthcare delivery and payment models.

In reality, it is very difficult, if not impossible, in most cases to precisely attribute "blame" for poor perioperative outcomes to a single physician. Surgery is a team sport, and bad outcomes are every one's responsibility. By emphasizing shared responsibility, and accepting both responsibilities for bad and for good outcomes, anesthesiologists in collaboration with surgeons will be held accountable for what we do in and out of the operating room as perioperative physicians. Only by accepting joint responsibility for perioperative outcomes can we be seen as co-equal partners by our surgical colleagues, other physicians, and our patients. As described in the series of editorials in Anesthesiology on quality and safety, anesthesiologists have been at the forefront of the creation of a safety culture for surgical patients. By explicitly accepting accountability and responsibility for important surgical outcomes, we will be better able to join other major stakeholders in helping to shape the transition to a 21st century healthcare system.[6]

With the creation of the Anesthesia Quality Institute and the National Anesthesia Clinical Outcomes Registry, our specialty is developing the data infrastructure necessary for anesthesiologists to work together with surgeons to develop team-based performance metrics. The most important strength of ACS National Surgical Quality Program, the high quality of its clinical data, is also its most important limitation because of the very high cost of manual data abstraction. Efforts by Anesthesia Quality Institute, in collaboration with the Multicenter Perioperative Outcomes Group, to lay the groundwork for using electronic medical records to populate National Anesthesia Clinical Outcomes Registry with clinical data are critical to the development of a next-generation robust and cost-effective data infrastructure. By spearheading the effort to create national outcomes registry based on electronic data, Anesthesia Quality Institute will be ideally positioned to take a key leadership position in the development of quality eMeasures envisioned by CMS.

The future requires us to be a part of the national debate on healthcare reform and to find ways to improve the value of perioperative care. This will necessitate a multidisciplinary approach with clinicians (anesthesiologists, surgeons, internists, and many more) working with our colleagues in health services research, including economists, policy experts, and statisticians to find innovative solutions to delivering higher quality care. The American Society of Anesthesiologists has started down this road in by hiring a Director of Health Policy Research. We have also recently created an interest group entitled Surgery and Perioperative Care and Outcomes Interest Group within Academy Health, a national organization devoted to advancing outcomes research and health policy. The goal is for this group to provide methodological and policy expertise in the perioperative arena.

The near-term challenge will be to identify important outcomes, such as 30-day mortality, major complications (myocardial infarction, renal failure, and stroke), patient satisfaction, efficiency, and coordination measures (hospital length of stay), that our specialty would embrace as team-based performance measures. The next step would be to form a working alliance with the ACS (for noncardiac surgeries) and the Society of Thoracic Surgery (for cardiac surgeries) to jointly develop team-based performance measures. This will require data sharing across existing registries (ACS National Surgical Quality Program, Society of Thoracic Surgeons, and National Anesthesia Clinical Outcomes Registry) and close collaboration. Such an alliance will likely prove beneficial for our specialties, and more importantly for our patients. Working together, we may also succeed in convincing CMS to share the financial burden of clinical data collection which is preventing expansion of existing outcome registries to all hospitals to measure outcomes in all of our surgical patients. The time for anesthesiologists to be sitting at the sidelines of healthcare reform is over. We must now become fully engaged in the effort to redesign the U.S. healthcare system.

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