



RESEARCH NEWS

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Quality and Performance Measurement: National Efforts to Improve Quality of Care Through Measurement Development

The US Department of Health and Human Services created the National Quality Strategy to provide a framework to focus providers and organizations in achieving greater impact around better care, healthy people and communities, and affordable care. Providing incentive programs around quality measurement is one mechanism used to achieve these aims. Certified Registered Nurse Anesthetists (CRNAs) should begin to familiarize themselves with the consensus development process used in measurement development and the importance of measurement endorse-

ment through the National Quality Forum. Additionally, CRNAs should become familiar with what Physician Quality Reporting System (PQRS) measures CRNAs are currently using in anesthesia and the 2015 payment adjustments one may face if not currently reporting to the PQRS.

Keywords: Measurement development, National Quality Forum, National Quality Strategy, Physician Quality Reporting System, quality improvement.

How to Improve Quality?

In *Crossing the Quality Chasm*, quality healthcare was defined by the Institute of Medicine (IOM) as having 6 key elements to care: safety, effectiveness, patient-centeredness, timeliness, efficiency, and equity.¹ The IOM proposed the concept of aligning payment policies with quality improvement because payment binds a variety of stakeholders (eg, purchasers, patients, payers, and providers) together. To get providers and hospitals involved in high-quality care, financial incentives around quality measures were needed to move these entities away from fee for service and into pay for performance. Pay for performance in the form of shared savings models, value-based purchasing, or accountable care organizations, aim at incentivizing healthcare professionals and hospitals to meet benchmarks to improve quality care.² The predominant incentive program for providers

is the Physician Quality Reporting System (PQRS), directed by the Centers for Medicare and Medicaid Services (CMS), which was implemented in 2007. According to the CMS, “PQRS is a reporting program that uses a combination of incentive payments and payment adjustments to promote reporting of quality information by eligible professionals”.³ Eligible professionals may be physicians (eg, anesthesiologists), practitioners (eg, Certified Registered Nurse Anesthetists [CRNAs]), or therapists (eg, physical therapists).

The early success of measuring quality is that it provided a template for clinicians to engage in quality measurement by thinking about what it meant to enact the 6 elements of high-quality care as defined by the IOM. On the other hand, clinician-centric process measures were used as a proxy for healthcare outcomes—not necessarily the best method to gauge true quality

improvement. Process measures are those measures that are considered both evidence based and in immediate control of a clinician providing the care. An example of a quality process measure is PQRS measure 30, “Perioperative Care: Timely Administration of Prophylactic Parenteral Antibiotics.”

Setting Healthcare Priorities

Measuring the quality of healthcare in the United States is not new; however, one of the key challenges faced by measurement developers is defining the importance of any given measure. Berwick and colleagues⁴ coined the phrase *Triple Aim* and suggested that the US healthcare system aim to improve the individual experience of care, improve overall population health, and reduce costs of care. Although the “Triple Aim” is conceptually broad, on March 21, 2011, the Department of Health and Human Services (HHS) created the

National Quality Strategy (NQS) as mandated in the Affordable Care Act to narrow its focus to provide greater clarity on how healthcare delivery systems and providers could achieve these aims. The NQS officially declared 3 national aims—(1) better care, (2) healthy people and communities, and (3) affordable care—with 6 priorities to help guide healthcare stakeholders in achieving these aims⁵:

- Making care safer by reducing harm caused in the delivery of care
- Ensuring that each person and family is engaged as partners in their care
- Promoting effective communication and coordination of care
- Promoting the most effective prevention and treatment practices for the leading causes of mortality, starting with cardiovascular disease
- Working with communities to promote wide use of best practices to enable healthy living
- Making quality care more affordable for individuals, families, employers, and governments by developing and spreading new healthcare delivery models

The ultimate goal of the NQS is to provide the framework to help focus healthcare professionals, organizations, and health service researchers in achieving greater improvement impact in healthcare services, health outcomes, and overall population health. One of the main mechanisms in achieving the national aims is to develop quality and performance measures to align with these priorities. As such, measurement developers were given a national framework to assist in prioritizing what measures may lead to greater impact and quality improvement.

Who Develops Measures?

Many organizations, whether they are public, private nonprofit, or private for-profit, may choose to develop a measure. Examples of public measure developers are the CMS and the Agency for Healthcare

Research and Quality (AHRQ). An example of a private nonprofit measure developer may be a professional healthcare organization (eg, Society for Thoracic Surgeons, American Medical Association-convened Physician Consortium for Performance Improvement) or an organization such as the National Committee for Quality Assurance (NCQA). There are very few private for-profit organizations that develop proprietary measures; however, as Berenson and colleagues⁶ discuss, such measures lack transparency and often do not disclose measurement methods to address accuracy.

The gold standard for leading measurement developers is to follow some form of a consensus-building process when developing a measure.⁷⁻⁹ The use of an interdisciplinary team is critical in measurement development. Knowing that appropriate stakeholders are represented in the creation of a measure helps ensure that trade-offs associated with both risk and benefit of any given measure were thoroughly assessed. As outlined in an NCQA brief, the critical elements needed for the consensus development process are to: (1) have a mix of measurement experts and stakeholders (ie, methodologists, clinicians, patients) develop and scrutinize the measure, (2) make sure the measure is transparent and easy to read, (3) allow opportunity for public comment, and (4) allow thorough review of all comments.⁹

Who Reviews Measures?

Any organization can develop a measure, but getting hospital and provider buy-in is essential if health plans and payers are to adopt measures to incentivize these groups. Although not mandatory, most health plans and payers prefer to use endorsed measures. An endorsed measure is a measure that has gone through 2 rounds of the consensus method of evaluation and assessment: 1 round by measurement

developers and another round by an independent external organization. The purpose of such scrutiny is to minimize bias by any given stakeholder to ensure that all parties invested in the measurement topic have the opportunity to evaluate it. More importantly, the goal is to ensure that patients and consumers have a platform to voice concerns.

The de facto leading organization that reviews and endorses measures is the National Quality Forum (NQF). The NQF praises its consensus development process in getting a variety of groups (eg, patients, clinicians, payers, health systems) to vet measures for impact, accuracy, and transparency. The NQF has endorsed more than 660 measures, where the vast majority of measures are quality measures (n = 631) around processes.¹⁰ Currently, the 3 leading measurement developers (also known as measure stewards, who are authorized to submit measures to the NQF) are the CMS, NCQA, and Physician Consortium for Performance Improvement, as evidenced by the NQF's online quality positioning system tool.¹⁰

As directed by the HHS, the NQF convened a multistakeholder partnership of both public and private groups called the Measure Applications Partnership to review incoming measures received by the HHS.¹¹ Reviewers for this partnership must make sure that the measures align with the NQS aims and priorities. Therefore, measurement stewards need to provide evidence that a gap in quality exists and that measurement will greatly affect patient outcomes and experience. This often means that measure stewards need to move beyond developing provider quality process measures that demonstrate the rates at which evidence-based processes are followed and move toward quality indicators to reflect healthcare outcomes.^{6,12} According to NQF's *Developer Guidebook*, "to be endorsed, a measure submitted to

NQF must satisfy 4 criteria—*importance to measure and report* (must pass), *scientific acceptability of the measure properties* (must pass), *feasibility to implement*, and *usability of the measure results*.¹³

Where Does Anesthesia Fit in the World of Quality Improvement?

Anesthesia has been cited as leading the way in patient safety and outcomes by setting the example for safe quality care.¹⁴ In *To Err is Human*, reducing anesthesia mortality was accomplished through adopting new technologies and standardizing processes, using information to develop guidelines and standards, applying human factors and using simulation for training, forming the Anesthesia Patient Safety Foundation and being a champion for the cause of patient safety and quality.¹⁴ Today anesthesia mortality is remarkably low. Of an estimated 105.7 million surgical discharges from 1999 to 2005, “each year in the United States, anesthesia/anesthetics are reported as the underlying cause in approximately 34 deaths and contributing factors in another 281 deaths, with excess mortality risk in the elderly and men.”¹⁵

CRNAs are expected to participate in reporting adherence to current PQRS quality measures. As of 2012, of all CRNAs and anesthesiologists, only 18,669 CRNAs (41%) and 24,317 anesthesiologists (57.4%) participated in the PQRS incentive program.¹⁶ Of the anesthesia professionals who did participate, 80.5% of CRNAs and 80% of anesthesiologists were eligible for the financial incentive. The Table shows the 5 most frequently reported individual PQRS measures for CRNAs based on the most current report.¹⁶

Currently, as an incentive program, eligible professionals can receive up to 0.5% of their total Medicare Part B physician fee schedule.³ However, by 2015 PQRS will begin to penalize eligible profes-

Rank	PQRS No.	PQRS measure
1	30	Perioperative Care: Timely Administration of Prophylactic Parenteral Antibiotics
2	193	Perioperative Temperature Management
3	76	Prevention of Catheter-Related Bloodstream Infections (CRBSI): Central Venous Catheter (CVC) Insertion Protocol
4	124	Health Information Technology (HIT): Adoption/Use of Electronic Health Records (EHR) [Retired Jan. 1, 2013]
5	130	Documentation of Current Medications in the Medical Record

Table. Most Frequently Reported Individual PQRS Measures for CRNAs, 2012
Abbreviations: CRNA, Certified Registered Nurse Anesthetist; PQRS, Physician Quality Reporting System.

sionals who fail to report by using “payment adjustments.” According to CMS, failing to report PQRS measures “will result in a negative 1% value modifier adjustment to 2015 payment under the physician pay schedule”.¹⁷ Although some may argue that PQRS is a pay for reporting program, participating in PQRS will become mandatory for CRNAs if one wants to avoid a payment adjustment.

Anesthesia professionals have a limited number of quality measures that apply to them. In the world of quality and performance improvement, understanding and measuring outcomes related to adverse events, mortality, and complications gives measurement tangible meaning in the hopes of identifying variation in care; a key aspect in differentiating between high and low quality. But what do you do when anesthesia-related mortality (an important outcome) is low? Developing measures around rare anesthetic events is unlikely to yield a large enough sample to identify differences in quality. Moving beyond provider process measures to measures that have meaning to patients may be perceived as a challenge in anesthesia. Especially when today’s measurement developers are required to look at how measures fit in with the 6 priorities set by the NQS. One opportunity is to focus on the patient’s experience of

anesthesia; for example, postoperative nausea and vomiting. Another opportunity is to delve into identifying and measuring anesthesia’s role in interprofessional team-based care.¹⁸

Use of a variety of data sources such as administrative claims data, electronic health records, and patient satisfaction surveys will be vital if measurement stewards are going to tackle the hard issues around quality and performance improvement.⁶ Having access to administrative claims data alone will not be sufficient if one attempts to meet the goals set by the NQS. The new frontier of quality measurement will require greater use of health information technology to access pertinent patient information.

Conclusion

The anesthesia-related death rate has been identified as 1.1 per million population per year based on the 1999 to 2005 US multiple cause of death data files.¹⁵ Such a rate illustrates anesthesia’s unique position as a champion for patient safety and quality. However, vying for resources to improve anesthesia quality may prove difficult when there is an increasing burden placed on services challenged with managing chronic disease and its effect on population health. For example, according to the 2011 National Diabetes Statistics, diabetes was named the seventh

leading cause of death, resulting in 71,382 deaths in which diabetes was cited as the underlying cause of death in 2007.¹⁹

So what should individual CRNAs do to improve quality care for patients? According to Standard X of *Standards for Nurse Anesthesia Practice*, CRNAs should “participate in the ongoing review and evaluation of anesthesia care to assess quality and appropriateness”.²⁰ Individual CRNAs should monitor their own activities as it pertains to patient safety and quality, continue to participate in internal quality improvement programs in their institutions, and as patient advocates, voice quality and patient safety concerns when they arise. Additionally, CRNAs should participate in the PQRS and become familiar with their institution’s anesthesia reporting policy. With the trend in quality reporting, organizations are aligning their research agenda with the NQS to be more patient centered. Organizations also should continue to engage in national quality discussions and have representatives participate in the consensus process for measurement development with leading measurement stewards.

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