



Defining and measuring quality in endoscopy

Quality has been a key focus for gastroenterology, driven by a common desire to promote best practices among gastroenterologists and to foster evidence-based care for our patients. The movement to define and then measure aspects of quality for endoscopy was sparked by public demand arising from alarming reports about medical errors. Two landmark articles published in 2000 and 2001 led to a national imperative to address perceived areas of underperformance and variations in care across many fields of medicine.^{1,2} Initial efforts to designate and require reporting a small number of basic outcome measures were mandated by the Centers for Medicare & Medicaid Services, and the process to develop performance measures for government reporting and “pay for performance” programs was initiated. Since that time, major external forces stemming from policy makers, payers, and ultimately patients have generated demand for a way to accurately define and measure the quality of the services endoscopists provide.

The path to quality improvement naturally begins with an effort to define those aspects of care that impact the quality of the patient experience. The quality goals include effective care and safety and further encompass other aims such as professionalism, equitable care, and increasingly, affordable care.³

To these ends, gastroenterology societies have been working to define the elements of high-quality endoscopy and to facilitate ways to measure it. Initially, this entailed developing, refining, and communicating evidence-based, procedure-related quality indicators. This effort began in 2005 with the work of the American Society for Gastrointestinal Endoscopy (ASGE)/American College of Gastroenterology (ACG) Task Force on Quality in Endoscopy. David Bjorkman, MD and John Popp, Jr, MD, then presidents of ASGE and ACG, respectively, believed that gastroenterologists should take the lead in defining quality in gastroenterology practice rather than have those outside our field define it for us. In heralding the project and its rationale, they wrote, “The ASGE and ACG recognize that if we do not develop evidence-based quality measures, an administrative or governmental agency without experience or insight into the practice of endoscopy will define these measures for us.”⁴ The task force they established published the first set of quality indicators for GI endoscopic procedures in April of 2006.⁵⁻⁹

The expert panels that were convened in 2005 compiled a list of quality indicators that were deemed, at the time, to be both feasible to measure and associated with improved patient outcomes. Feasibility concerns precluded measures that required data collection after the date of endoscopy service. Accordingly, the majority of the initial indicators consisted of process measures, often related to documentation of important parameters in the endoscopy note. The evidence demonstrating a link between these indicators to improved outcomes was limited. In many instances, the 2005 task force relied on expert opinion. Setting performance targets based on community benchmarks was introduced, yet there was significant uncertainty about standard levels of performance. Reports citing performance data often were derived from academic centers, expert endoscopists, and carefully conducted, randomized, controlled studies. The infrastructure for collecting community-based outcome data at that time was limited, and very few endoscopists were regularly recording their performance variables.

Despite these limitations, 5 seminal articles were published in 2006: 1 on indicators common to all gastrointestinal endoscopy and the others on EGD, colonoscopy, ERCP, and EUS. These publications served as the basis for the dramatic transformation that has occurred since in the area of quality in endoscopy. These documents informed thinking about training and definitions of competency and guided the evolution of electronic endoscopy reporting for documentation. Perhaps the greatest impact has been the impetus they provided and the foundation they laid for the development of central data repositories to facilitate widespread benchmarking based on these very indicators.

As a result of the 2006 quality indicator documents, the GI Quality Improvement Consortium, Ltd (GIQuIC) established a data repository and benchmarking tool. This registry, a joint initiative of the ACG and ASGE, now has an expanding colonoscopy database that is a resource for the development of new quality measures, quality benchmarking, and clinical research. GIQuIC recently added EGD measures and is in the process of adding ERCP and unit-based measures to the registry. Data reports from registries are being used by endoscopists and endoscopy units in continuous quality improvement efforts, which was the primary goal of the initial project to define quality indicators.

Beyond this, data on variance in performance by using registries and other outcome studies have supported the adoption of GI-specific performance measures for government quality reporting programs. Increasingly, government, third-party payers, and patients are requiring data about the quality of the procedures we perform, and the

quality indicators continue to evolve to meet these expectations.

As our ability to measure actual outcomes has improved and as the stakeholders begin to expect information about real outcomes rather than surrogate process measures, our understanding and definition of what constitutes quality indicators for endoscopy has necessarily evolved. In 2005, Bjorkman and Popp stated, "Although providing the best possible patient care is our most important goal, we are poorly equipped to measure our ability to achieve that goal."⁴ Since that time, we have risen to the challenge and continue to expand the menu of quality measures.

The 5 articles that appear in this journal issue reflect the new body of data established since 2006 about the factors that most impact patient outcomes and address the standard level of performance achieved in the community for these indicators. Some, but not all, of the feasibility challenges in measuring quality indicators have been overcome, making true outcome measurement more realistic than it was in 2006. Capturing information from days after endoscopy remains a challenge, particularly with regard to the measurement of delayed adverse events.

The updated list of quality indicators contained in these articles reflects gastroenterologists' increased ability to measure their performances as well as public and private payers' desire for them to report true outcomes. New research questions focus on indicators that demonstrate care that is effective, safe, equitable, and cost effective. We anticipate that these articles will continue to guide our efforts to measure and benchmark the key components of the procedures we perform. The ultimate purpose of gathering data on these indicators will be to identify performance gaps, which will allow us to focus our improvement efforts and deliver higher quality endoscopy care to our patients.

We sincerely thank the members of the task force who critically evaluated the literature and our endoscopic practice to provide these insightful reports. Their important contribution has provided us with the critical tools to confront a challenging future.

DISCLOSURES

All authors disclosed no financial relationships relevant to this publication.

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Abbreviations: ACG, American College of Gastroenterology; ASGE, American Society for Gastrointestinal Endoscopy; GIQuIC, Quality Improvement Consortium, Ltd.

This document is a product of the ASGE/ACG Task Force on Quality in Endoscopy. This document was reviewed and approved by the Governing Boards of the American Society for Gastrointestinal Endoscopy and the American College of Gastroenterology. It appears simultaneously in *Gastrointestinal Endoscopy* and the *American Journal of Gastroenterology*.



This document was reviewed and endorsed by the American Gastroenterological Association Institute.



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