

## What Is Quality in Neurosurgery?

*William F. Chandler, M.D.*

I have had the privilege to participate in many and varied aspects of organized neurosurgery over the past 30 years and defining *quality* in neurosurgical practice remains elusive.

How do we define quality? How do we measure, certify, regulate, and report quality? How do we ensure that quality will happen? It is much like beauty. It is hard to define, but you know it when you see it. It is also like beauty in that it is in the “eye of the beholder.” Leonard da Vinci had one view of beauty in the Mona Lisa and Picasso yet another in his cubism portrayals of beauty.

I believe that when you are sitting in an examination room, one-on-one with a patient and reach a conclusion and make a recommendation, you are defining quality. When you are in the operating room and decide just how hard to retract a nerve root or how much to elevate the dome of an aneurysm, you are defining quality. When you tell the patient’s family that there is nothing further to be done and care should be withdrawn, you are defining quality. When you decide to take one more trip back to the hospital to check on a patient, you are defining quality.

You reach your personal definition of quality through your upbringing and your education. Your family sets your moral and ethical compass and your sense of responsibility. They help set your expectations, not just the “minimum.” Your perception of quality is further defined and challenged by your education and religion.

Your medical school experience is critical in beginning the process of defining what is quality in medicine. Mentors are extremely important in showing you by example what it means to practice quality medicine. Learning a core body of knowledge, analytical thinking, and various procedures is important, but understanding compassion for the patient and unquestioned integrity is essential.

It is at this point that regulation begins to appear. You take the National Board of Medical Examiners examinations parts 1, 2, and 3 and receive a score. This sets a minimum that is acceptable to proceed and gives you some measure of proficiency.

You then enter neurosurgery residency and your personal definition of a quality neurosurgery practice begins to

form. The depth of experience and the core values of your training program become critical in providing you with an understanding of quality. Residency is like a very long apprenticeship, and mentoring is the main method of teaching. The faculty of our training programs all make spectacular contributions to education, and a lucky few may have the same degree of influence as your fifth grade teacher.

There is a serious effort at quality control and accountability during residency that is provided by the Residency Review Committee and the Accreditation Council for Graduate Medical Education.

Even though these may seem like layers of bureaucracy, these organizations are pivotal in maintaining quality across the range of neurosurgery training programs.

Just when you finish six or seven years of intensive training in neurosurgery, along comes someone else to impose “their” standards of quality, the American Board of Neurological Surgery (ABNS). The written examination of the ABNS sets another minimum hurdle for your intellect, but the oral examination really does take a good look at the intangibles of quality.

You finally get a certificate from the ABNS, and then you find out that it is only good for 10 years. Time-limited certification from the ABNS started in 1999. Fortunately, just as the ABNS began to design a meaningful program for recertification, along came Maintenance of Certification (MOC), brought to you by the American Board of Medical Specialties (ABMS).

The ABMS is in its 75th year and is made up of the 24 specialty boards with a total of 145 specialties and subspecialties. Although this seems like another layer of accountability and regulation, I have come to believe that the public expects us to keep up with the evolving complexities of our specialty and to show evidence that we have made that effort.

MOC is a process that requires continuous education and accountability. It is designed to look at the six core competencies of patient care, medical knowledge, professionalism, practice-based learning, interpersonal and communication skills, and systems-based practice.

MOC will do this through a 4-part process. For neurosurgery, these four components are (1) Licensure and Professional Standing: your medical license and hospital privileges; (2) Lifelong Learning and Self-assessment: continuing med-

ical education and the SANS (Self-Assessment in Neurological Surgery) examination; (3) Cognitive Expertise: a written, proctored examination every 10 years; (4) Practice Performance Assessment: a look at the quality of your practice.

The MOC program was initiated and is administered by the ABNS. It is hoped that this program can be elevated to a level where it will be viewed by the public with confidence, will suffice for maintenance of state licensure and will suffice for reimbursement from Centers for Medicare and Medicaid Services (CMS) and health plans. It is clear to me that the ABNS and our educational societies cannot do this alone.

It would appear to me that between our parents, our program directors, the ABNS, and the ABMS, we should be more than qualified to practice quality neurosurgery. So why is everyone in Washington so nervous?

Over the past 20 years, the public has become increasingly concerned about safety issues in the delivery of health care. Neurosurgery has not been immune to these concerns.

The 1980s began the "Era of Professional Accountability," with the emergence of recertification by major boards and the increase in power of the Joint Commission on the Accreditation of Healthcare Organizations and the National Committee on Quality Assurance.

In 2000, the Institute of Medicine published the bombshell *To Err Is Human*,<sup>2</sup> followed in 2001 by *Crossing the Quality Chasm*.<sup>1</sup> *To Err Is Human* stated that as many as 98,000 deaths per year were attributable to medical errors. They stated that medical errors cause more deaths than breast cancer, acquired immunodeficiency syndrome, or motor vehicle accidents. These errors affected 3% to 4% of all hospitalized patients, and as many as 10% were fatal. Medication errors alone accounted for 7,000 deaths per year. More than 50% of Americans were aware of this report, and it resulted in a presidential order and Congressional hearings. It provided the newly formed Leapfrog Group with a focus.

*Crossing the Quality Chasm* reported that the "[h]ealth-care system failed to translate knowledge into practice" and was a "[h]ighly fragmented delivery system, resulting in poorly designed care and duplication of services." This report recommended that we provide health care that is evidence based, patient centered, and systems oriented.

As a result of this increased concern by the public, a remarkable number of organizations interested in defining quality have appeared. There has been an exponential increase in the demand for measurement, reporting, and accountability of quality in the practice of medicine.

I consulted with Kevin Weiss, the CEO of the ABMS and a nationally recognized expert on quality, to better understand what motivates these organizations and what the future might look like. He teaches an entire course on quality at Northwestern University and was gracious enough to give me a primer on this important topic.

He reiterated that "Quality is in the eye of the beholder." The beholders of quality are traditionally divided into three groups: the professionals, the purchasers, and the consumers. A new fourth beholder of quality is the general public.

The first beholders of quality are the professionals. We, along with our colleagues at all levels of health care delivery, are the professionals. We are organized into societies or what Washington calls "trade associations." These include the American Medical Association (AMA), the Congress of Neurological Surgeons (CNS), and the American Association of Neurological Surgeons (AANS). In these organizations, quality is equated with education. As professionals, we also have our individual boards, such as the ABNS, to help define quality.

One shift in this paradigm is that some of our societies, such as the AMA, are beginning to trade physician measurement tools for payment. An example of this is the AMA Physician's Consortium for Performance Improvement Program. The AMA has agreed to do this for Congress, and the mission of this group is to enhance quality by developing clinician performance measures. This is a shift away from education and toward measurement.

The next beholders of quality are the purchasers or payers. This includes corporate America and the federal government. The mantra here is "Quality when available and cost at all cost." Above all, they want transparency. They want to see exactly what they are buying. Corporate America has organized into groups such as the Leapfrog Group and Bridges to Excellence and, of course, the government brings you the Department of Health and Human Services and the CMS.

One of corporate America's attempts at quality is the Leapfrog Group. This is a consortium of Fortune 500 companies, started in 1998, the year before publication of the IOM's *Err Is Human*. Part of their logo states that they are "Rewarding Excellence."

They provide benefits to more than 34 million people and believe that they can save as much as \$40 billion per year on health care. They also make the ambitious statement that they can save 65,000 lives per year.

The Leapfrog Group's initiatives promote computer ordering systems, evidence-based hospital referrals, the use of intensivists in all intensive care units, and the Leapfrog Safe Practices Score.

Bridges to Excellence is another organization created by employers and health plans with a logo stating that they "reward quality" and that "high quality care can also be cost effective care." In other words, they tend toward equating quality with cost efficiency.

The government side of health care purchasing is huge and is seen in the budget of the Department of Health and Human Services. Last year's budget was more than \$700 billion and was one-quarter of all federal outlays. The De-

partment of Health and Human Services includes the National Institutes of Health, the US Food and Drug Administration, the Centers for Disease Control and Prevention, as well as the CMS, which contains 86% of the budget.

The CMS is the nation's largest insurer, with 1 billion claims each year. The CMS provides health insurance for one in four Americans.

The third traditional beholders of quality are the consumers. These are our patients. They are becoming organized into groups such as the American Association of Retired Persons and large unions. To many patients, quality equals access, and they tend to worry about real quality issues much later. Consumers also worry about cost shifting in that they may end up paying for the uninsured. Another shift in the traditional paradigm is that as coverage diminishes, the consumer becomes a powerful purchaser.

The newest beholder of quality is the public. This is a less well defined group, but includes the forces that are asking for accrediting and credentialing. These groups include the Joint Commission, the National Committee on Quality Assurance, and now the ABMS. The ABMS would like to become a "public trust" to define quality for specialists and set standards through maintenance of certification.

I will try to give a quick description of the players that are in the "public trust" attempting to measure and define quality.

We are all familiar with the Joint Commission that was formed in 1951 as Joint Commission on the Accreditation of Healthcare Organizations to accredit hospitals. This was started by the American College of Surgeons and then later joined by the American College of Physicians and the American Hospital Association. Their mission is quality and safety.

The National Committee on Quality Assurance was formed in 1990 to accredit health plans. It sets standards and provides a seal of approval for health plans. It has traditionally tracked the quality of care of health plans, but more recently is even providing physician recognition programs in many areas.

The National Quality Forum is a public/private partnership started in 1999 by a presidential advisory commission to advance quality measurements. It now vets and endorses performance measures and quality indicators. This is the group that the ABMS has contacted to receive an endorsement for part 4 of the MOC.

The Hospital Quality Alliance (HQA) was formed in 2002 to improve hospital quality.

You can go to [www.hospitalcompare.hhs.gov](http://www.hospitalcompare.hhs.gov) to see how a given hospital ranks by 21 measurements. Note that this is a government web site because the HQA works in collaboration with CMS.

The Ambulatory Care Quality Alliance was started just 4 years ago and is the counterpart to the HQA. It is an alliance of 135 groups to help improve the performance measurements of physicians and to report these to consumers and physicians.

The Quality Alliance Steering Committee was formed to help the HQA and the Ambulatory Care Quality Alliance communicate better.

I am concerned that there are too many cooks in the kitchen trying to measure quality. It is also clear that even with the very best efforts, it is very difficult to measure quality. This difficulty has been encountered by neurosurgery when trying to measure Practice Performance quality in part 4 of the MOC. The larger medical community has experienced great frustration in trying to assess quality in the various "Pay for Performance" programs.

Part of this is because each "beholder" sees quality differently. Professionals see quality as education. Purchasers see quality as cost. Consumers see quality as access. The public sees quality as credentialing.

What is the good news? I believe that there are very sincere efforts going on to improve safety and quality in medicine. There are significant improvements in our hospital and outpatient systems. These include electronic ordering systems and electronic medical records. We have better measurement tools for hospitals, health plans, and, yes, even physicians. The ABMS may be able to provide quality standards for board-certified physicians through MOC that will help both physicians and patients.

And the best news, you already know *quality* when you see it.

## Disclosure

The author has no personal financial or institutional interest in any of the drugs, materials, or devices described in this article.

## REFERENCES

1. Committee on Quality of Health Care in America, Institute of Medicine (ed): *Crossing the Quality Chasm: A New Health System for the 21st Century*. Washington, DC, National Academies Press, 2001, pp 1–219.
2. Kohn LT, Corrigan JM, Donaldson MS, Committee on Quality of Health Care in America, Institute of Medicine (eds): *To Err Is Human: Building a Safer Health System*. Washington, DC, National Academies Press, 2000, pp 1–204.