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Physician, Measure Thyself

The price of physicians’ autonomy is accountability. But how can anyone be accountable if performance is not measured?

by Lee N. Newcomer

I can still name all of the patients I lost to Hodgkin’s disease. I consider the death of a young Hodgkin’s disease patient as a personal failure—Hodgkin’s disease is one of the rare cancers that a medical oncologist has a high probability of curing. After each relapse I spent hours reviewing my treatment plan, searching for the flawed decision that might have made the difference between cure or progression.

As a physician I am not unique. No one is a tougher, harsher critic of a failed case than the physician who attended the patient. Ask an obstetrician if he has ever lost a mother during delivery; he will know every detail. Ask a general surgeon if she has ever lost a patient during a cholecystectomy, and she will recall every event. Failures are never forgotten.

Ironically, despite this self-critique, I cannot tell you if I am an excellent medical oncologist or merely a mediocre one. The answer to that question is locked in the medical records room. Finding the answer requires pulling thousands of medical records from the racks, sorting the Hodgkin’s cases from the other diagnoses, and then sorting survivors from relapsed patients. Only then would I be able to compare my experience against the medical literature, and only then would I know how well I performed.

As before, my experience is not unique. Most physicians have no objective performance measurements to assess their clinical competency. They use highly subjective methods such as peer opinion, referral rates, or self-evaluation of anecdotal incidents such as the examples above. All of these methods lack the unbiased truthfulness of measured data, but objective practice data are rarely available. Unfortunately, the only valid and reliable data I received about my practice were monthly financial billing summaries.

Even without information, most physicians, including me, assume that they practice high-quality, consistent medicine using the standards and guidelines they were taught in residency. Their assumption implies that there is no compelling reason to measure care that is presumed to be excellent. Is this assumption valid?

Measures Of Clinical Performance

It is possible to measure physician clinical performance using administrative databases. The measures shown in Exhibit 1 are taken from the claims records of United HealthCare Corporation, a large national health care management company. Several care protocols were profiled for three of the company’s plans for 1995 and 1996. The clinical protocols are accepted standards of care supported by medical evidence. The data-collection method has been described and verified elsewhere.

Each of the three health plans in this illustration enrolls more than 200,000 members and contracts with more than half of the physicians in its service area. The plans are organized to deliver the type of medical care that is enshrined by the American Medical Association. Physicians in the health plans are paid
fee-for-service (eliminating any financial incentive to withhold care). There is no gatekeeper in these health plans; members may see any physician in the network without a referral. Laboratory services are provided by a national reference laboratory.

The first measure in Exhibit 1 is important because diuretics are the most common cause of potassium deficiency in adults, and potassium deficiency can cause severe complications, including fatal cardiac arrhythmias. Yet only 41–50 percent of eligible patients had this test of potassium levels ordered by their physicians. The second measure is important because there is no evidence that prescribing more than one H2 antagonist for peptic ulcer disease is effective. Cure rates are not improved, and symptoms are not alleviated more quickly. Nevertheless, approximately 20 percent of the patients in the three plans were given two or more concurrent H2 antagonist prescriptions.

The last two measures in Exhibit 1 report on medical care for insulin-dependent diabetics. The Diabetes Control and Complications Trial established that rigorous glucose control reduces long-term complications for diabetes. The best method for assessing glucose control is to test the hemoglobin A1C level. Three to four tests per year are sufficient to monitor patient compliance. Only one out of four insulin-dependent diabetics was monitored with two or more tests per year. An annual ophthalmology examination in the same population decreases or delays the onset of blindness from vascular complications. Even with unrestricted access to specialists, compliance with this guideline is approximately 50 percent in these plans.

In 1995 Donald Brand and colleagues reported on their study of physician use of beta-blockers to treat patients who have had acute myocardial infarction. Administering beta-blockers to these patients lowers the incidence of secondary myocardial infarctions, and the practice is a guideline of the American College of Cardiology. The study group in Brand's analysis included 150 cardiologists in seventeen network-model health plans using United HealthCare's database for 1994. The data reveal that only eighty-nine (48 percent) of 185 eligible patients were actually treated appropriately (all patients with contraindications to the drug were eliminated from the analysis).

**Bad Doctors Or Mediocre Care?**

"Mediocre" is the best word to describe the clinical performance revealed in these measures. My first reaction to these data reflects my old clinical practice assumptions: I assumed that the health plans had contracted with the worst doctors in the United States. But the facts do not support my immediate
conclusion. The performance is remarkably similar in three distinct geographic regions. Each health plan contracts with more than half of the available physicians in its service area. It is highly improbable that only “bad” physicians are being profiled.

To fully understand these performance data requires comparison statistics. But, not surprisingly, there are scant data to compare. Performance measures for daily clinical practice are scarce. When comparisons are available, the results are similar. For example, a 1996 study of beta-blocker administration confirmed that cardiologists prescribe the medication for only 52 percent of eligible heart attack patients.8

This performance simply reflects the standard of care practiced in American medicine today. It is a reality that is hard for any clinician to admit. It is equally hard for me to believe that this performance level is the result of “bad” or “mediocre” physicians. I have yet to meet a physician who reviewed these data and said to me, “Mediocre performance is good enough. I can live with this level of competency.” The training of physicians eliminates men and women who are comfortable with anything other than their best effort. The same training, however, did not teach physicians how to measure their efforts.

Accountable Autonomy

Physicians must assume accountability for the objective measurement of their own performance. Relying on anecdotal information or “gut feeling” is not enough in this information age. If a package delivery person can track letter delivery by the minute, if a grocer can update the sales rate of cereal daily, if a managed care organization can track the use of beta-blockers for acute myocardial infarction, then it is reasonable to expect medical professionals to track their results.

Equally important is improving results that do not meet standards. But it is important to understand that flawed or imperfect processes—not incompetent doctors—drive most of these imperfect measures. For example, my pediatrician doesn’t notify me about due dates for my children’s immunizations or routine examinations. If he measured immunization rates in his practice, the scores would be low. My dog, however, has never missed a vaccination. Using a simple index card file, my veterinarian sorts his patients by months and mails reminders when the next vaccination is due. Even though my pediatrician has a checklist in the back of each child’s chart, there is no reminder system for the child who doesn’t make an appointment. This system is flawed. The pediatrician isn’t a bad physician; he simply hasn’t given any serious thought to the problem of missed immunizations in his practice. He has an inadequate system of care.

Clinical performance measurement is not easy, and the barriers to measurement should not be underestimated. Most physicians do not have the technical knowledge for performance measurement; learning these skills requires further education. They do not recognize and use readily available sources of data such as the appointment book, the billing system with diagnosis and procedure information, the laboratory services bill with patient names and diagnosis, and the surgical log book. Too often physicians waste resources perfecting data when trend information is all they need. My personal physician is a perfect illustration. I gave him his data for hemoglobin A1C testing (his rate was 25 percent), and he refused to believe that the data were accurate. He spent the evening pulling charts and called me in the morning to inform me that the data were wrong and that his actual rate was 32 percent. Fortunately, he laughed and ended our call by saying, “I get the point.”

Barriers are not limited to skill acquisition. Performance measurement costs money, and there is no reimbursement for this effort.
Someone has to collect, retrieve, and analyze this information to make it valuable to users. The organization of health care delivery—for example, informal groups of physicians working in the same hospital—often makes a cooperative effort difficult. The issues begging for evaluation outstrip resources.

These obstacles cannot be excuses for failing to measure clinical performance. Performance measurement requires nothing more than a pad of paper, a pencil, and genuine interest by the physician. Recall how simple the veterinarian’s system is. Billing practice computers can be queried for valuable information. The local college or medical school almost certainly has faculty members willing to assist with quality-measurement systems. No one is more aware of the right processes to measure than the practicing physician is.

Physicians who ignore the measurement issue invite someone else to manage their profession. Simply stated, physicians should do it for themselves or have it done to them. As professionals, doctors have long enjoyed autonomy in their practices. The price for autonomy is accountability, but the old standard of accountability is too subjective and inaccurate to meet the demands of today’s public. How could anyone be accountable without performance measurement? The perceived void in accountability from within elicited varied responses from outside the profession, including government regulation, managed care, and professional management of practices by corporations or hospital management.

Regaining autonomy requires performance measurement and accepting the responsibility for improvement—I call this “accountable autonomy.” The accountable physicians who invest time and effort in measuring and improving their performance as a routine part of practice gain the satisfaction of providing better care. This self-management has another important result: The need for outsiders to manage medicine evaporates. It cannot happen soon enough.