

On the Same Page
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Health Professions, Autonomy and Quality Patient Care

“The patient comes first.”

This is a core value in the mission statements of academic health centers and hospitals across the country. In thinking about “The patient comes first,” consider what does not come first: not the doctor, nurse or other health professional; not the computer screen, documentation, coding or reimbursement rates; and certainly not academic or health-care administrators!

“Because I want to help people.”

This is the answer most applicants to medical schools give to the question: “Why do you want to become a doctor?” Similar sentiments motivate applicants to other health science colleges. Thus, virtually all of us enter the health professions with a strongly held view – in fact, the very reason for choosing the profession – that the patient comes first.

Just as it is a short distance from “Because I want to help people” to “The patient comes first,” most health professionals easily translate “The patient comes first” to a desire to provide the highest-quality health care possible. This translation is no longer that simple, however.

When I was growing up, the physician who treated all members of my family was a general practitioner (family medicine was not yet a specialty), Dr. Berman. Dr. Berman had a small office with no receptionist. A nurse assisted him on some visits, but he took our blood pressure, took our temperature and drew our blood himself. He saw to the routine health-care needs of our family, but also set my arm in a cast when it was fractured during a high school basketball game, and diagnosed early breast cancer in my grandmother. (I vividly recall that he admitted her to the hospital, chose the surgeon and made post-op rounds in the hospital and subsequent visits to our home). Dr. Berman, to me, exemplified the “patient comes first” view of high-quality health care, and profoundly influenced my choice of medicine as a career.

But 40 to 50 years later, the health professions are not the same. Explosions in scientific knowledge and medical technology have occurred. People are living longer and often develop more complex multisystem conditions. And health-care teams are required to provide care that can best take advantage of new and constantly evolving knowledge and technology. Patients appropriately expect evidence-based decision-making, with documentation of what was done and why. The few scratches that Dr. Berman made in his chart would not now pass muster, and in retrospect our family had no way of knowing whether his decision to treat (or not treat) a condition was correct

based on the best scientific evidence. We trusted him, and I like to think that we did so with good reason.

From a broader societal perspective, however, we cannot simply “trust” an entire profession. As the years pass from completion of training, intuitive decisions made by solo practitioners based on their “clinical experience” may or may not be informed by current medical literature. In hospital practice, clinical outcomes are not optimized when the varied intuitions and clinical experiences of a dozen specialists in a particular field lead to a dozen different ways to approach the care of a given patient. Moreover, given the high and rising costs of health care, there is increasing concern among employers, employees, insurers and politicians about the potential for conflict in our fee-for-service reimbursement system, as evidenced by data such as the strong correlation between surgeons per capita and numbers of surgical cases per capita.

As an individual patient, I must trust my doctor and other health professionals to do the right thing. After all, I am confident they believe my care comes first, are committed to providing the highest-quality care and are governed by the ethical principles of their profession. What does this imply, however, about their professional autonomy? Taking medicine as an example, on an individual level we take comfort in the idea that our doctor considers our particular medical situation in the context of his or her broad clinical experience and is devising an individualized plan. From a societal perspective, does that mean that physicians as a whole, based on their clinical experience, should make individualized decisions about diagnostic tests and treatment plans regardless of the medical literature or cost? Given a patient who presents with a specific history and set of symptoms, is it sensible for each of the 10 specialists in a hospital, the 1,000 in a state or the 50,000 in the nation to make autonomous – and potentially highly variable – decisions about such a patient’s diagnostic evaluation and treatment?

In a Nov. 8 article by David Leonhardt in *The New York Times Magazine*, the appeal of physician autonomy is nicely put: “Doctors have a degree of professional autonomy that is probably unmatched outside academia. And that is how we like it. We think of our doctors as wise men and women who can combine knowledge and instinct to land on just the right treatment. Our fictional doctor heroes, from *Marcus Welby* to *House*, are iconoclasts who don’t go by the book. They rely on intuition, and intuition is indeed a powerful thing, be it in medicine or other parts of life.”

Indeed, across generations of medical students and house officers, continuing to the present, variations among attending physicians in practice “styles” have been accepted and even celebrated. While there are many ways of performing a certain surgical procedure or taking care of a particular type of medical patient, there always seems to be an institutional “way.” Moreover, within each institution there is variation between physicians. Being trained in reproductive surgery – whether laparotomy, laparoscopy or microsurgery – I learned that each of my teachers had their own suture technique, their preferred draping method, their favorite instruments, their personalized set of steps in a surgical sequence, their own variation on pre-op and post-op orders, etc. One had to learn the “institutional way,” and then the modifications of the various faculty surgeons.

All of these variations seemed to work reasonably well, although experientially (but without data) some seemed to work better than others. I learned that what you did as a surgeon was built on the basic “way” of doing surgery at your institution of training, and then choose what you perceived to be the very best combination of surgical techniques from your myriad of experiences under different faculty surgeons, making that unique combination your own. And so was born the “Guzick” way of doing a tubal reanastomosis, the “Guzick” method of ultrasound-guided egg retrieval, etc. I was not alone. There was the “fill in the name” method for a given procedure, multiplied by the number of graduates in a given field.

Alongside the science of medical and surgical practice, what I have described above is the “art” of medicine. It will remain alive and well, as it should. In certain areas, however, we must ask ourselves whether the level of autonomy described above is best for optimal patient outcomes. I will give an example from my own experience that has influenced my thinking more broadly on the issue of standardization vs. physician autonomy in clinical programs. In 1986, a year after completing my fellowship, I moved to Pittsburgh to become the division director of reproductive endocrinology in the Department of Obstetrics and Gynecology at UPMC. This sounds like quite a privilege, and it was, but it was a division of one faculty member — me. The previous director had left after her new program of in vitro fertilization had produced very few pregnancies, and the other faculty had scattered. I inherited a fellow and a superb ovarian physiologist and embryologist (Tony Zeleznik, Ph.D.), and had some experience in developing a moderately successful IVF program in Dallas, where I had done my fellowship. The field was young and exciting. While this era preceded e-mail, text messaging and Twitter, news of day-to-day developments on a variety of IVF fronts (culture media and methods, embryo transfer catheters, medication regimens, etc.) moved quickly across an international network of highly interested clinicians and scientists.

Consider that there are about 10 broad steps in the IVF procedure — about five clinical and five laboratory. For each of these steps, I had my “Dallas” way, Tony had his way and there were credible reports in the literature on several other ways. One strategy that we considered was to choose the “best” way for each step based on our experience and the literature. If there were five possible alternatives for each of the 10 steps, there were 5^{10} or almost 10 million possible ways to do the 10 steps of IVF. We could have picked the combination that we thought would be best, but this would have been a totally unique approach (the “Pittsburgh way”) that would have never been previously tried in its entirety. Moreover, if we individualized each case, using a substitute for certain steps to tailor the regimen to a particular patient, we would essentially be trying out a new way to do IVF for each patient. Such an approach was, indeed, the standard method for starting an IVF program from scratch.

We decided that it wasn’t right for our patients and referring physicians to test a new protocol when some extant IVF programs had already demonstrated excellent success. Therefore, we decided to copy – exactly, step-by-step – the entire IVF protocol of a program producing world-class results. At the time, pregnancy rates in good programs were in the 15 percent to 20 percent range, with the best programs approaching 25

percent. Due to our scientific relationship with the laboratory director of the Hammersmith Hospital program in England, Steven Hillier, Ph.D., we were lucky enough to convince Dr. Hillier to spend two weeks in Pittsburgh taking us through the highly successful Hammersmith protocol.

When we opened our program, with a trial of 10 patients, we followed each step of the Hammersmith IVF program to the letter: the drug regimen, the criteria for dosage increases or decreases, the culture media (from England), the embryo transfer catheters (from Germany), etc. Of our first 10 patients treated, four became pregnant. The program was successfully launched. As new faculty and embryologists were recruited, they performed the steps of the procedure exactly the same way, so that our patients were treated in an identical manner regardless of who was “on call.” When protocol changes were introduced across time, we only permitted one variable to change at a time, to ensure continuity and an informative way of evaluating the protocol change.

Should it be any different for the steps used in a hospital to start a central line, manage patients on ventilators to avoid pneumonia or develop a protocol for blood transfusions? Insisting on uniformity in each of these protocols, and many others, reduces physician autonomy but also reduces line infections, ventilator-assisted pneumonia and unnecessary transfusions that increase cost and sometimes produce adverse clinical outcomes.

In a 2008 lecture to the Royal College of General Practitioners titled “The epitaph of profession,” Donald Berwick, M.D. (president and CEO of the Institute for Healthcare Improvement) spoke eloquently about the professional life of his father, one of two general practitioners in a rural Connecticut town. Dr. Berwick’s father sounded much like Dr. Berman: a supremely dedicated physician who selflessly practiced medicine with great skill and autonomy, but who would no doubt be confused and concerned about the direction of current medical practice and its implications for the profession.

Among many attributes of the new medical professional that would be foreign to Dr. Berwick’s father was what Dr. Berwick described as a “willingness to trade prerogative for reliability.” He goes on to say: “That’s a subtle trade; surely the toughest one for my father, to be handled with caution. Overshoot, and patients lose the benefit of the poetry and art of individual expression from each caring doctor; but, undershoot, and patients play dice – gambling that this particular doctor knows that particular fact – up-to-date, accurate and precise. The aim is to promise every single patient the benefit of the best possible science, and that inevitably places the autonomy of the individual physician in some jeopardy. But, the new professional must make the choice: either treat the patient, your patient, according to your own store of knowledge and facts, or give up total self-reliance so as to promise the patient, your patient, treatment according to the entire world’s store of knowledge and facts. That promise, the promise of science, is a different kind of promise from the one my father made. He promised to do his best; the new professional promises to do the world’s best.”

But what about innovation? If we all are to follow a specific clinical protocol exactly, how will the practice of medicine move forward? Ideally, the answer is for incremental changes in clinical protocols to be studied experimentally, through randomized trials. If step 4 of a 10-step protocol is being considered for a change, in an idealized world one would randomize patients to a new 10-step protocol in which steps 1-3 and 5-10 would be exactly the same for two groups, but one group would receive the “standard-of-care” step 4, and the other would receive the “experimental” step 4. In reality, the cost in dollars and time, as well as regulatory constraints and other factors, restrict the number of randomized trials that can be conducted. These must be chosen carefully in a world of scarce resources – this represents the new world of comparative effectiveness research. Nonetheless, we must embrace innovation, recognizing that it – like professional autonomy – creates a tension against the goal of uniform high-quality practice.

Where do our patients fit in the continuum of professional autonomy? No doubt, Dr. Berman’s patients came first, as did those of Dr. Berwick’s father. We must recognize, however, that the world has changed: for our patients to come first – that is, for us to provide our patients with the highest-quality care – we must “trade,” in Dr. Berwick’s words, some degree of “prerogative for reliability.” And yet, at the same time, we should follow our intrinsic scientific and clinical curiosity in testable ways that ensure continued innovation and progress in medicine. Airline pilots follow standard operating procedure in all circumstances when they are in the air, but new technologies and procedures are continually tested in engineering laboratories and flight simulators; innovation continues. This model should work in the health professions as well. Such is our challenge. While we have been somewhat slow to adapt thus far, I am confident that, as health professionals, we can resolve the tension between the science and art of clinical practice, between prerogative and reliability, and between practice standards and innovation.

And indeed, the patient will come first.

Go Gators!

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