

EDITOR'S PAGE



A Second Dilemma in Cardiovascular Medicine

Personalized Medicine Versus Personal Interaction With the Patient



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In our rapid and ambitious quest to achieve personalized medicine, mainly driven by technological diagnostics and therapeutics, we are in danger of losing what is truly personal about medicine, that is, the interaction between a doctor and his or her patient. Thus, in a previous Editor's Page entitled "A First Dilemma in Cardiovascular Medicine: Adherence Versus Personalized Therapy," I wrote about how poor medication adherence in patients with varied cardiovascular diseases is thwarting efforts to develop improved, personalized treatments that have proven so effective in oncology (1). In this follow-up editorial, I examine the premise that any distraction that interferes with the personal interaction between the physician and his or her patient may impede care. Although technological advances are necessary, they are frequently not used in addition to this cognitive interaction with the patient, but rather as a substitute, wedging themselves in a detrimental manner between this sacred bond. I am not suggesting that we should reject those scientific and technological advances that have served to improve the time to diagnosis and have aided in greater physiological understanding of the human body, but I am simply attempting to caution myself and my colleagues not to get lured in by the promise of personalized medicine.

When thinking about the evolution of care, I am reminded of the words of Sir William Osler from 1903, "The good physician treats the disease; the great physician treats the patient who has the disease" (2). Even more importantly, Dr. Osler reminded us to "Put yourself in [your patient's] place . . . The kindly word, the cheerful greeting, the sympathetic look—these the

patient understands" (2). We have to remember these binding aspects of humanity by treating each of our patients uniquely. In my mind, that is truly personalized medicine. It was Dr. Osler who championed the cause of committed, sensible family physicians. Thus, he observed to the members of the Canadian Medical Association: "It is amusing to read and hear of the passing of the family physician... He is the standard by which we should be measured" (2). Indeed, within the context of the socioeconomic pressures and technological advances that drive medicine today, I believe that Dr. Osler's views and principles regarding the paramount importance of the personal doctor-patient interaction continue to be pertinent, perhaps more than ever before.

Again, I am not discounting the lifesaving benefits of medical devices and technology across the care curriculum. In fact, the adoption of computerized physician order entry systems alone could eliminate approximately 200,000 adverse drug events and save about \$1 billion per year, if properly installed and implemented in all U.S. hospitals (3). Yet, nothing can replace time spent with our patients in terms of outcomes benefits. Unfortunately, 1 study recently showed that physicians spent less time in direct contact with their patients (28%) than they did on data entry (44%), generating nearly 4,000 mouse-clicks every 10 h (4). Personal observations while attending rounds at a number of large teaching hospitals have convinced me that the teams spend far more time reviewing and discussing patient care plans than at the bedside of their patients. These findings and personal observations, also supported by others (5), favor the argument that rounding now consists of examining a patient's "electronic fingerprint" on a computer screen and ordering the next round of diagnostic studies based on the results

of the prior diagnostic tests. Although medical advances have immense potential to generate diagnostic and prognostic data, the value of these data will still need to be interpreted in the context of the patient's clinical condition. Thus, we cannot use these tools as crutches, so that we do not hone our own diagnostic and interpretive skills. Nor can we rely on those who are not properly trained to make decisions for our patients. In fact, the number of diagnostic medical sonographers who have 2 years of training is expected to jump by 44% between 2010 and 2020, according to the U.S. Bureau of Labor Statistics (6).

Inspection of jugular venous pulsations, palpation of the precordium, and auscultation of heart sounds are multisensory experiences that require the physician to incorporate observation, touch, and healing, aided by the context of the patient's clinical history. In fact, the legendary cardiologist, Dr. W. Proctor Harvey suggested that 90% of cardiovascular diagnoses, although not necessarily 100% accurate, could be derived from understanding the patient's history and conducting a physical examination (7), reinforcing the idea that bedside evaluation can identify pathology at a lower cost and in less time than extensive diagnostic and imaging tests. But even in an era of accuracy, with evidence-based medicine, a study of 442 patients admitted to an academic research hospital found that almost 40% were accurately diagnosed based on only the historical and physical examination (8).

Importantly, cardiologists in training are most susceptible to these changes. Therefore, senior residents and staff need to help younger staff and fellows with their interpersonal skills, which is admittedly difficult to teach. These interpersonal skills, for both trainees and skilled cardiologists, involve being able to read body language, to act respectfully, and to recognize fear, anxiety, and depression, as well as denial. The skilled physician should become versed in communicating with patients across a range of cultural, ethnic, and socioeconomic backgrounds, as well as be sensitive to financial, cultural, and social barriers that may be obstacles to diagnostic and

treatment recommendations of his or her patient. These skills are particularly important in gaining a patient's trust and in building an appropriate and attainable treatment plan together with one's patient.

In conclusion, the prevalence of technology has created a striking debate between 2 opposing groups. On one side are those that feel medicine has moved too far away from the traditional bedside physician-patient interaction with an over-reliance on technology that has led to a disruption of the sacred doctor-patient relationship, the erosion of important diagnostic aspects that technology cannot reach, and the dehumanization of the patient. On the other side of this debate are those welcoming new technologies into the practice of medicine that have the potential to change the existing paradigm of diagnostic medicine and permit advancement over past examination techniques that some view as antiquated, inaccurate, and far from futuristic personalized medicine. It seems that the solution to this debate exists in bridging and unifying the core concepts on both sides: the doctor-patient relationship and the drive toward personalized medicine and technology-based care. However, in order for cardiovascular care to advance for each individual patient, it is critical that this individual has a physician who knows and understands his or her family history, flaws and strengths, and physiological makeup to tailor a unique diagnosis and treatment plan. This is personalized medicine at its best. Maybe in our quest to become more and more specialized, some of us cardiologists have lost our ability to apply generalized care outside of our specialty for our patients. But that is a topic for a future Editor's Page. For now, I encourage my fellow cardiologists to take a few moments with their patients to truly learn from them. This can be a lifesaving technique that no technology can ever replace.

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