EDITORIALS

# The Physical Exam and Other Forms of Fiction

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The traditional physical diagnosis course taught in the first two years of medical school has changed little in over half a century, and it deserves some scrutiny, if only because it is quite out of step with what students see when they begin on the wards during their clinical years. They are surprised to find that the house staff and attending staff carry very few of the instruments the student has acquired: reflex hammers are occasionally spotted, but ophthalmoscopes are quite rare. Even more vexing for the student is the realization that the currency on the ward, the "clinical skill" they were so anxious to acquire, does not involve the patient as much as it involves finesse and efficiency on the computer in ordering tests, in discharging patients and in completing notes-throughput. Indeed, one could make the case that it is time to dispense with the physical exam course altogether because the physical exam *is* being dispensed with altogether. It would appear that the two-dimensional rendering of the patient through imaging occupies us more than the three dimensional reality of the patient.

However, there are good reasons to keep teaching students the art of examining the patient, and they are worth listing. First, there are many diagnoses that can and always will be readily be made by the physical exam. (Almost of all of dermatology, for example.) Second, as a hypothesis-generating tool (by finding physical signs that one can think of as phenotypic markers for disease) the exam, when done with some skill, should allow physicians to ask better questions of the tests they do order and be judicious in the ordering of tests. Third, the bedside exam is a true ritual, and the extraordinary act of the patient disrobing and allowing touch requires in turn that the physician enter this ritual with the skills needed to be worthy of this trust. Finally, for better or worse, medical students have to take a national 'clinical skills' exam (though they are not tested on *technique* or the ability to pick up disease) and for that purpose at least they must know how to go through the motions.

Each year the new crop of interns who enter a training program inevitably come from many different medical schools; their cognitive knowledge base may be similar, but inevitably their bedside exam skills are extremely variable. Unfortunately, during the three years of Internal Medicine residency training, too little is done to evaluate and improve their physical exam technique and guide them to a higher level. We have guidelines and uniformity in the approach to pneumonia or secondary prevention of coronary artery disease, but there is little uniformity in the way residents or attending physicians elicit (or fail to elicit) physical signs. The fact that there is a drop-down box on the electronic medical record (EMR) that allows one to click to say that reflexes were normal, or the cranial nerves are intact is no guarantee of the truth of these observations; indeed the 'physical exam' section of the EMR reads at times like a form of fiction. Drs. Benbassat and Baumal [1] in this issue discuss the considerable inter-observer variation in eliciting physical findings in the respiratory examination. They suggest the variation occurs because practitioners have vastly different levels of experience. But even "experience" does not necessarily mean much more than that one is doing the *wrong* thing with increasing frequency and mounting confidence that it *is* the right thing.

The fact is that the kinds of errors that occur from lack of physical diagnosis skills are not easily recognized—they are not as obvious as wrong-site surgery or medication error. For example, a patient presents with wrist and ankle pain and the physician, in search of a diagnosis, might order sedimentation rate, rheumatoid factor, anti-CCP, ANA, uric acid level, x-rays, and MRIs. But if the physician had noted the presence of clubbing, it would immediately be apparent that what the patient had was hypertrophic pulmonary osteoarthropathy (which we think of as clubbing *plus*; it is caused by the same conditions that cause clubbing such as lung cancer, and the pain is due to periostitis). Most clinicians, particularly those who favor and rely on the bedside exam, can recite many such examples of errors of this kind that are not picked up by quality improvement studies.

Ignoring the physical examination in residency training perpetuates the problem of uneven skills. Over the past year, we have developed an emphasis on the technique of the physical exam, and found that by focusing on just 25 technique-dependent physical signs, we can create awareness and appreciation for the nuances of the exam in general [2]. For example, being able to execute an ankle jerk in a recumbent patient is far from easy: it requires a tendon hammer (which we insist our house staff carry and which we provide if they lack one) and skill in positioning the leg and in striking the tendon. What has been most surprising about the Stanford 25 is the eagerness and hunger with which residents (and faculty!) embrace these sessions; we use standardized and real patients. We ask the participants not only to learn the technique and demonstrate it to us, but then to show us how they teach it to another. The idea is to give people a repertoire of things to do and teach at the bedside, which in turn we hope will bring us back to the bedside.

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The new era of health care reform will probably bring with it a new level of accountability; it is unlikely that the promiscuous ordering of imaging and other lab tests can continue to conceal the problem of poor physical exam skills. Even as we continue to refine our understanding of the accuracy of a physical sign and examine its operating characteristics, we must also leave each of our trainees with the sense that after three years they have acquired a uniform set of skills that they can bring to the patient's bedside. One certain way to guarantee such uniformity is to put in place a national, high-stakes clinical skills exam. It seems short sighted for "board certification" in internal medicine to be based on a multiple choice exam; it is yet another form of fiction to assume that everyone who passes that hurdle has acceptable skills in examining the patient. We can surely hold ourselves to a higher standard.

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