

## Shattuck Lecture — Medical Education

**TO THE EDITOR:** In his Shattuck Lecture, Dr. Arky (May 4 issue)<sup>1</sup> stated that “continuing medical education [CME] is in trouble.” CME, still dominated by classroom lectures, does not produce measurable changes in physicians’ performances.

Osler’s teaching always emphasized learning from experience: “In what may be called the natural method of teaching, the student begins with the patient, continues with the patient, and ends his studies with the patient, using books and lectures as tools, as means to an end.”<sup>2</sup> Osler’s principles have not been universally implemented because of the time constraints imposed on physicians.

Information technology is on the cusp of making systematic learning from individual clinical experience a reality. This reality will be facilitated by refinements to a database that will permit the analysis of practice; a method of supplying brief, prompt electronic answers to questions arising during patient visits; a reminder system to avoid errors of omission; and the opportunity to discuss patient data with other physicians in order to validate and solidify lessons learned.<sup>3</sup> Further advances in information technology offer a realistic hope for improving physicians’ performance.

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1. Arky RA. The family business — to educate. *N Engl J Med* 2006;354:1922-6.

2. The hospital as a college. In: Osler W. *Aequanimitas*, with other addresses to medical students, nurses, and practitioners of medicine. Philadelphia: P. Blakiston’s Son, 1904:331.

3. Manning PR, DeBakey L. *Medicine: preserving the passion in the 21st century*. New York: Springer-Verlag, 2004.

**TO THE EDITOR:** I suggest a simple solution to the issues highlighted by Arky: loss of the “triple threat” (clinical, research, and teaching) physician, lack of integration of undergraduate and graduate medical education, and the burden of graduate education in the face of a crushing clinical load for residents. Residents should take a comprehensive review course before, not after, residency. Such courses provide excellent preparation for board examinations, which have themselves become de facto standards for standards

of clinical care. It is much more efficient to teach material in a compact lecture course (the second and third issues) than for students to try to learn after they have been awake for 24 hours, or while they are being paged physically out of a lecture to see a patient. Imagine if police officers or firefighters were given comprehensive job-related lectures only after three to five years on the job, or had lectures or didactics while trying to capture a criminal or rescue someone from a burning building. The initial teaching of the basics rewards the triple-threat faculty with teaching the art of medicine.

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**THE AUTHOR REPLIES:** Drs. Manning and DeBakey rightly point out that a major flaw in most CME programs is the failure to incorporate the Oslerian principle that all medical education should be patient-centered. I agree completely with them that the amalgamation of practice-based experiences with advances in information technology should help CME. These steps must be taken rapidly, and the use of the lecture format as the sole approach to CME should be put to rest just as quickly.

Dr. Altschuler urges a comprehensive review of basic science before the initiation of residency training. I would suggest another approach — a work–study program similar to that used in a number of undergraduate institutions. Because new information is accumulating so rapidly and because the transfer and application of this information affect the patients encountered during residency, I would suggest a program in which each resident has designated periods free from any responsibilities to patients and is required to review both the fundamental sciences related to that residency as well as advances in fields such as molecular biology, genetics, and immunology. Such a program would ensure a balance between education and service during the residency. I am well aware of the fiscal and scheduling implications of a work–study plan but feel strongly that graduate medical education too is in need of reform.

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