Michael J. Dunn, MD

Dean's Corner

Future physicians need hands-on education

By Michael J. Dunn, MD
Dean and Executive Vice President, Medical College of Wisconsin

Medical knowledge is growing exponentially, yet each rapid advance in medicine and technology must be integrated into medical school curricula. Amid the modern pace of discovery and education, we must uphold the value and necessity of training compassionate physicians capable of effective communication with patients.

Medical College of Wisconsin students experience how fundamental medical knowledge and clinical care mesh naturally through novel programs that challenge them in both areas.

The National Board of Medical Examiners (NBME) is planning to introduce a standardized clinical skills examination (CSE) as part of the United States Medical Licensing Examination (USMLE), but the Medical College already evaluates its students' clinical skills using methods similar to those proposed. Under the leadership of Kenneth B. Simons, MD, Senior Associate Dean for Academic Affairs, and Deborah E. Simpson, PhD, Professor and Associate Dean for Educational Support and Evaluation, the College has, during the last several years, developed a strong and varied standardized patient program for use in all four years of the curriculum. Most recently, the College implemented a standardized patient program as part of the M1 medical interviewing course.

Standardized patients are lay-people trained to consistently simulate a specific medical condition or disease. Medical students interview these "patients," take their histories and conduct examinations.

Via this role-playing, students experience the challenges of physician-patient interaction. Subsequent critiques give students candid insight into their performance. In the Medical College's M1 program, the standardized patient offers feedback about a student's approach, demeanor and efficacy as a medical communicator. Students are also judged by their peers and a faculty facilitator.

The Medical College is further reinforcing these skills by piloting an Objective Structured Clinical Examination (OSCE) for third-year medical students. For the past several years, M3s have been observed and graded during standardized patient encounters and performance of other clinical tasks linked to benchmark performance standards. Beginning with next year's M3 class, the benchmark OSCE will be a graduation requirement.

If the NBME does introduce in 2004 its clinical skills examination, Medical College of Wisconsin students will have first-hand experience on their side.

In many ways, modern technology has constructed new and various bridges to knowledge and clinical experience. This technology is not cold and removed. It can cultivate intuitive care through hands-on application.

In December, a human patient simulator was integrated into the month-long clinical procedures rotation for third-year medical students at the Medical College. Nicknamed Stan after "standard man," the full-size simulated human can be programmed with about 50 prescripted patients who can be coupled with more than 70 different scenarios. The computer-driven mannequin has a blood pressure, pulse, can breath spontaneously and is capable of responding physiologically and pharmodynamically as a real human being.

The simulator recognizes more than 60 different drugs, and the trauma package allows for pericardiocentesis, defibrillation, chest tube placement and decompression of tension pneumothorax. The simulator allows students to rehearse diagnosis and critical care medicine without faculty intervention, so they see the consequences of their actions, but in a controlled environment.

Virtual patients function within the College's geriatrics curriculum. Part of a grant from the Ronald W. Reynolds Foundation funded CD-ROMs featuring actors who portray actual patients. Their presentations, charts, even test results, are all authentic and made available to faculty as a teaching resource.

The virtual geriatric patients age

throughout each year of the curriculum, in a range of 15 to 30 years, so medical students can witness and better understand the progression of health and disease in the elderly. The comprehensive information sets–including photos, X-rays, tests, symptoms and histories—are of value to students pursuing virtually any field of practice.

Universally, technological tools are improving efficiency and assessment in medical education. All M3s at the Medical College are given Personal Digital Assistants (PDAs). These not only give students instant access to volumes of information, from drug interactions to curriculum objectives, but they also successfully document the data students enter.

With the Liaison Committee on Medical Education (LCME) requiring that medical schools monitor the degree to which their students meet curricular objectives, the PDA has become a cost-effective, convenient way to ensure parallel educational experiences. The College can access all data processed through the PDA for an equitable means of student evaluation.

From the hand-held technology of the PDA to the hands-on experience gained in clinical clerkships with faculty and the College's more than 1700 volunteer clinical preceptors, our medical students are poised to become skilled physicians, joining extensive scientific knowledge with comprehensive clinical exposure.

Employed correctly, academic competency, innovative programs and technology all contribute to a future physician's ability to compassionately interact with people and recognize how their decisions affect patient outcomes and comfort. This skill is greater than the sum of its parts.

The mission of the *Wisconsin Medical Journal* is to provide a vehicle for professional communication and continuing education of Wisconsin physicians.

The *WMJ* (ISSN 1098-1861) is the official publication of the Wisconsin Medical Society and is devoted to the interests of the medical profession and health care in Wisconsin. The managing editor is responsible for overseeing the production, business operation and contents of *WMJ*. The editorial board, chaired by the medical editor, solicits and peer reviews all scientific articles; it does not screen public health, socioeconomic or organizational articles. Although letters to the editor are reviewed by the medical editor, all signed expressions of opinion belong to the author(s) for which neither the *WMJ* nor the Society take responsibility. The *WMJ* is indexed in Index Medicus, Hospital Literature Index and Cambridge Scientific Abstracts.

For reprints of this article contact the *WMJ* Managing Editor at 866.442.3800 or e-mail wmj@wismed.org.