Medical education is constantly undergoing revision and renewal in attempts to ensure appropriate depth and breadth of knowledge of basic and clinical sciences as well as provide an environment that encourages life-long learning and integrative reasoning skills. An overview of the most recent comprehensive (130/141 accredited medical schools in the United States and Canada) report on medical education (1) compiled by M. B. Anderson, Associate Vice President - Division of Medical Education, Association of American Medical Colleges, reveals several important observations concerning the "state of modern medical education."

1. Medical curricula are constantly under revision, producing great variation in governance and pedagogy, but these revisions have been primarily directed at the first two years of medical school.

2. The most critical element for successful reform of medical curricula is the total commitment and support of the dean to the process. This must include a budget for the program as well as rewards (merit raises as well as promotion and tenure) for faculty who contribute to medical education.

3. Governance of medical curricula has become more centralized and has assumed a more formalized structure, usually under the authority of an associate dean for academic affairs and or a director of an office of medical education. In the survey, 111 of 130 schools have an office of medical education with an independent budget. Furthermore, 65 new offices of medical education have been established since 1990.

4. Pedagogy has changed to focus more on student-centered learning vs. faculty-centered delivery by incorporating more case discussions, problem-based learning, and other small group activities into the curriculum instead of more traditional didactic presentations. Increased usage of the library by medical students has become a common observation. The introduction of clinical medicine occurs earlier in the course of medical school by the teaching of patient interviewing and physical exam skills, often within the first year. This has been accomplished by actual student-patient contact under preceptor supervision in ambulatory clinic settings, nursing homes, hospice centers, etc., as well as more use of standardized patients. For example, at the University of North Dakota School of Medicine and Health Sciences, freshmen students work up an actual patient case as the focus of their orientation week to medical school.

5. The use of computer technology has exploded in medical curricula. A significant number of medical schools (45 of 130) require students to purchase a computer. Requirement or not, it would be safe to say that most, if not all, medical students either own or have ready access to computers. Course content for laboratories is delivered via computer applications that often involve use of the Internet.
The application of computer technology has allowed advancement in student assessment to expand to multiple domains of student performance that include: knowledge and acquisition of knowledge, communication skills, and professionalism. A significant use of Objective Standardized Clinical Exams to assess student competency in clinical skills can be documented (107 of 130 schools report current usage).

The following series of articles is organized to achieve two objectives. First, Dr. H. Maurice Goodman, Professor and Chair of the Department of Physiology at the University of Massachusetts Medical School, presents important endocrine physiology content topics and concepts that freshman medical students should learn. Second, various current approaches to teaching endocrine physiology in medical schools are presented.

Hopefully, this information will be useful to promote and support current efforts by faculty in their attempts to deliver modern endocrine physiology content to medical students as well as to stimulate faculty to explore alternative approaches in the delivery of this content.

REFERENCES