

Report of the Curriculum Review Goals and Objectives Committee:

Participants: M Augenbraun, J Feola, L Dresner, C An, C Hill, B Anziska, J Burack, M Myers, M Erogul, S Eisner, S Miller, C Stewart, A Volidarsky, T Wilson, P Imperato, J Macrae

From the Fall of 2008 through the Spring of 2009 the committee met 4 times. The Committee was charged with elaborating the overarching goals and objectives of undergraduate medical education in order to help inform the current curriculum renewal process.

The objective of undergraduate medical education should be (AAMC) “to transmit the knowledge, impart the skills, and inculcate the values of the profession in an appropriately balanced and integrated manner’.

The committee felt that the objective of the educational program was to impart the ‘basics’ to all students, the core elements of which all competent physicians need to have more than a passing familiarity with, irrespective of what specialty or sub-speciality they pursue. Undergraduate education is not ‘vocational’ training in the sense that it should not seek to provide areas for concentration. Rather students completing the program should be generalists with requisite skills upon which specialty training can build.

The several key areas of concentration were identified to which the curriculum must conform in order to prepare SUNY Downstate COM students are:

1. **Mastery of the Knowledge Base:** within the multiple disciplines that make up basic and clinical sciences students must be exposed to the wide range of information. Expectations should be made clear about what information is important and students should be tested on their comprehension of this information. The best comprehensive guide to what constitutes at a minimum this knowledge base is the outline provided for the USMLE licensing Step exams. A comprehensive survey of the entire teaching program is beyond the scope of the committee but might be performed as part of the curriculum review process. Student body performance on the Step exams suggests that at the very least, the current curriculum address this area. Areas of understanding can and should be extended beyond simply what is called for on the exams. The individual disciplines must determine what these are.
2. **Clinical Skills Sets:** this includes performance of a competent history and physical exam, the interpretation of basic bedside diagnostic tests (i.e. EKG, radiograph interpretation etc), both oral and written communication and certain specialty determined procedures. Outlines of what constitutes these elements are highlighted in documents published by the AAMC. It was felt by the committee that the current curriculum does not adequately monitor the teaching of these various skills nor do we test them in a way sufficient to determine whether these goals are met. The increased emphasis on testing

- certain clinical skills through standardized patient exams provided on campus and in the new USMLE Step 2 CS exam are steps in the right direction but are insufficient. Students might in the future be asked to develop a 'portfolio' of documenting completed mastery of certain basic skill sets throughout the entire curriculum with particular emphasis during the clinical training courses. In addition the teaching of 'clinical reasoning' skills needs to be formalized and provided to students for their consideration, practice and mastery. The way physicians' think and problem solve is a unique and not intuitive skill that is essential to proper practice. The current curriculum does not consistently emphasize this.
3. Professional Behaviors and Values: This is an area of tremendous challenge. The current state of medical practice and to a certain degree overall social norms often conspire against inculcating a sense of self-sacrifice and strict ethical comportment. Modeling of behaviors by attendings and residents is not felt to consistently rise to the level of proper example for training physicians. Furthermore there is no current, effective way in the curriculum for assuring that students meet some sort of 'standard' of professional behavior. The only current assessment identifies gross deviation from the norm. The committee felt that the practice of Medicine should be regarded as a rigorously ethical and humanistic activity. As such, the curriculum needs more regular and standardized emphasis on teaching these principles and assessing their practice. One suggestion was that longitudinal patient experiences across the four years of the curriculum might help to orient students towards this goal.
 4. Scientific literacy: This needs to be a stated goal of medical education. Physicians at the very least serve as liaisons between their patients and the contemporary state of scientific knowledge. The rapidity with which information is being added to our understanding of biologic and medical systems demands that physicians understand how scientific studies are constructed, conducted and interpreted. Physicians need to know how to find, critique and value such work as it relates to the practice of medicine. This process needs to be built into almost every element of the curriculum. Workshops and 'journal clubs' might help accomplish some of this.

Other issues:

Many important elements described above are introduced in the current curriculum in the first two years, specifically through the current ECM course, and then either forgotten or assumed they are picked up in other courses. In truth, little attention is paid to consistent emphasis during clinical training periods where the lessons are most important. Efforts should be made to look at these elements and determine how they can be readdressed across the curriculum.

There needs to be a consistent ongoing examination of the content of the curriculum. Medical science is changing and it may not be enough to review the

curriculum every ten or more years as part of a comprehensive effort at change. Individual disciplines should probably not review their own areas in isolation from the rest of the curriculum. Specific resources should be invested in this effort.

Additional areas that the committee felt should receive more emphasis include:
Genetics and Molecular Medicine
Laboratory Medicine (particularly during clinical rotations)
Health Care Policy and Systems
Biostatistics and Basic Epidemiology
The History of Medicine
Critical Care Medicine

In reflection, the committee was not able to meet as frequently as probably would have been necessary to do justice to the charge. A comprehensive survey of the teaching program should have been done but would have been an enormous undertaking. Representation by important parts of the COM community on the committee was spotty and not at all comprehensive. Point in fact- there was essentially no student participation, little participation by Basic Science faculty and no participation by alumni. All three of these groups were invited but for various reasons did not attend. Their input is sorely needed.

Curriculum review and reform provides us with great opportunities to build and improve upon what is currently a very good but incomplete educational 'platform'. The challenges are great but so may be the rewards of doing this right.