

Scientific Foundations Committee
Meeting

April 1, 2011

7:30 – 9:00 am, B-646 Mayo

In attendance: S Allen, M Becker, B Clarke, W Donigan, G Filice, B Fleischmann, G Giesler, T Killeen, K Lee, S Levine, C Niewoehner, J Norrander, L Perkowski, D Powell, M Sanders, D Wangensteen, K Watson (@CEC), T Weinhaus, M Woods

Absent: A Bleas (lv of absence), E Coleman, A Edverson, R Hoffman, M Hordinsky, S Katz, N Lipin, T Mackenzie, K Nordby, L Schimmenti, P Schlievert, B Varda, K Wickman, R Wong

I. Minutes

Minutes for the March 4th meeting were provided but not reviewed. Dr. Niewoehner asked Committee members to review them and send changes, additions and/or comments to her and Sue Mowbray. They will be addressed at the May 6th meeting.

II. Annual Course Summaries

Human Disease III (HD-III)

Dr. Catherine Niewoehner, Course Director for HD-III covers endocrinology, the urinary tract and kidneys and the infectious disease thread. This course is collaboration between Physiology, Pharmacology, Pathology, Lab Medicine and Pathology and Infectious Disease. Topics addressed in the course include how Endocrine and Renal systems work together; how endocrine glands regulate numerous bodily functions; how the kidneys regulate fluids; and study of causes of sexually transmitted diseases. Included are aspects of the Endocrine and Renal system causes, consequences and approaches to evaluation of endocrine disorders, renal and urinary tract diseases, including sexually transmitted diseases and translational research to better diagnose, treat and prevent their affects. The objectives for this course have been mapped to the Program Objectives, which is required for every course in the curriculum.

The components that were evaluated for this course; participation in the required small group activities, eleven labs, a lab practical quiz (1 hour), and the written exam which included all disciplines. Dr. Niewoehner provided a recap of what indications exist to support that students achieved the desired outcomes, which include the following:

- Students did well on the Moodle and Lab Practical quizzes
- All students passed the final exam; the written and lab portions were a combined score
- To pass the course they were required to achieve 70% in the course overall, which includes the combined exam
- There was strong participation on the part of students in the small groups
- Students gave the course a 3.4-3.5 approval rate for comprehending what they were meant to learn and having achieved a basic understanding of the material, the exam was appropriately linked to what was presented and the material covered was closely tied to what stated as the focus of the course.

Dr. Niewoehner reported faculty teaching different components of the course were one of its greatest strengths, she gave high praise to their work throughout the course. There was a great deal of communication throughout preparation for the course and during the course. Other strengths include:

- course organization greatly enhanced by the course manager Anne Edverson, contributing a great deal in putting together everything from a wide range of faculty, with differing timetables.

- all course material was located and available on Moodle
- Moodle Forum provides an excellent method for communicating between students and faculty
- better coordination and integration between disciplines than has happened in the past.
- lectures and labs proceeded in a more logical sequence
- most small groups met as follow-up to lectures to allow more in depth discussion of topics
- a live patient for interviewing

Concerns included:

- ILT caused changes in small group sessions from 80 min. to 50 min., adjustments in 11-12
- the a.m. times are necessary because the small groups involve clinicians and clinic schedules
- ILT did not increase students' preparedness for small groups,
- increase structure for ILT to guide students to the concept of more independent preparation
- computers should add guidance but not should preclude preparation for a course
- changes are need for Infectious Disease to improve integration
- Thursday attendance is dramatically lower, may need rethinking when followed by ILT
- Need to adjust evaluation by students, too few responded, it took additional effort to get 1/3 of class to respond, with the current structure tutors may get as few as 1 evaluation response
- new fewer and shorter quiz structure meant there was less data to determine competence

Changes planned for next year include:

- make pathology labs interactive, include tutors in labs to assist rather than always for lecture
- need to integrate better with ID and FCTs
- improve integration in exams and quizzes
- increase small group time length
- Pharmacology is well integrated, some reduction can be made to areas of overlap
- survey tutors for their perspective on the new course.

Course directors have made strong recommendations for changes to student evaluation of courses for the new year. Dr. Perkowski responded, noting there will be a review of the current evaluation methods. There was a request to assess how well changes in the curriculum are working across years. Dr. Niewoehner responded that a separate meeting of SFC will have a dedicated discussion period for input on how and what can be done to improve evaluation of courses by students.

ECM IIa

Dr. Sharon Allen reported that the learning outcomes for this segment are very similar to those for ECM I, which requires students to demonstrate effective communication and interviewing skills, ability to conduct a complete head-to-toe physical exam, the ability to do clinical reasoning. They must also demonstrate ability to do a medical write-up, giving a complete medical history, using appropriate language. Evidence that the outcomes are being achieved included strong performance in the following:

- open book anatomy quizzes (before the physical exam tutorial)
- practical interview exam,
- a practical medical history write-up,
- complete a portion of the physical exam
- solve a practical hypothesis driven clinical problem

Dr. Allen gave details of the evaluation components and provided student performance data as indicators that students did extremely well, with only 5 students who did not pass. These individuals were remediated by their faculty facilitators and passed a 2nd examination. Dr. Allen reported that students did extremely well on the practical hypothesis driven clinical exam. Faculty did a global evaluation of each student on their communication, physical exam skills, hypothesis driven problem solving and a portion of the physical exam.

III. Discussion

Embryology and Nutrition

Dr. Sanders recapped information introduced during the March 4th meeting, addressing concerns raised by faculty and students, about the current on-line Embryology and Nutrition course content. Several faculty including Drs. Jan Norrander, Lisa Schimmenti, Tony Weinhaus and Michelle Sanders met to exchange ideas for a redesign. Their plan proposes making it a live course, completely integrated with the development portion of Biochemistry. Dr. Sanders reported that after the March, SFC meeting, Dr. Perkowski appointed an Ad Hoc Committee to review the concerns about the current course. The Ad Hoc Committee Chair, Dr. Robert Acton, is a pediatric surgeon and has a vested interest in how this subject matter is taught. He is also a member of the Education Steering Committee. The Ad Hoc group will begin meeting on April 8th, members include Drs. Weinhaus, Martinson (course director), Sanders, Schimmenti, Cook, Reed, Steinberger, Louis, Severson (Duluth), and Downing (Duluth). Dr. Perkowski added that because of a retirement in Duluth, they are interested in the design of a new course. It doesn't mean both campuses would be exactly the same, but they do have the same issue for 2011-12. The design may go beyond the first year, making it possible to better prepare students for clinical experiences.

Dr. Sanders reminded SFC members of concerns regarding course content for Nutrition, which was taught in the newly revised curriculum as a thread designed to flow through all four years of the curriculum. The Yr-1 portion was supposed to occur in the SMP course, but has since been dropped, when Dr. Henson left the Medical School. Dr. Sander's Proposal integrates fundamentals of nutrition with the Biochemistry portion of the course, details include:

- review of other medical school curricula and nutrition course content
- contacted Yr-2 faculty to identify overlap
- a committee working to redesign a nutrition course could address redundancy
- suggests time would come from hours recently eliminated from the schedule

Dr. Sanders and Dr. Perkowski have discussed the possibilities of the proposed changes and at this time no decision has been made for how to proceed for Yr-1 or throughout the four-year curriculum. SFC member suggestions included:

- including nutrition in relation to development of the nervous system could move it forward to be covered in Neuroscience
- possibly work with Internal Medicine, Family Practice and Pediatrics to integrate subject matter into clinical rotations
- an FCT case for Yr-1 includes discussion of parathyroid function

Immediate actions and plans include Dr. Perkowski's information gathering from clinical faculty, ESC's members is work toward approving adding the time in Biochemistry. Dr. Perkowski added that historically different departments have taken ownership of the nutrition content and included:

- School of Public Health's participation
- Feedback from Dr. Finnegan, Dean of Public Health, they want to continue
- interested clinical faculty who have expressed how and where they recommend nutrition content
- HD IV faculty have input for a comprehensive plan.

Dr. Niewoehner added it is important to determine what is needed for fall 2011 and then use a longer time frame for making a more comprehensive plan. Dr. Perkowski will provide an update to SFC once information is received from Dr. Acton and the Ad Hoc Committee.

Information

Match

UMMS Match statistics were provided and Dr. Linda Perkowski reported that all of the University's programs filled. Schools do not have access to information regarding whether students were given their 1st or 2nd choice. Approximately 51% matched in primary care, which is a higher percentage than in the past. There is no established goal set for "primary care" by our Medical School, by the University, nor

has the Legislature set a target. We are generally seen as training primary care physicians as well as in the specialties. Nationally more students went into primary care, if our numbers were very low it would be important to address the issue. Dr. Powell noted that nationally the message to train more primary care physicians has been recognized. Duluth does have a Mission to train more primary care physicians and a higher percentage of those students choose this field.

Dr. Perkowski talked about those students who do not “Match” and the process they enter called “the scramble” at which time they negotiate with programs that have not filled their slots. Some students don’t match because of a mismatch between their selection and highly competitive residencies, while others may be working with their spouses who are attempting to match at other locations. At this time all students have either matched or deferred to do research. Most of them will join the “Match” process again next year. The statistics also show students with 2 different matches, which are those programs that require a separate intern year before beginning a “specialty” residency. Transitional year is another type of preliminary match for a program that requires a different type of intern year, i.e. HCMC internal medicine, surgery and pediatrics. Proportionately the number of students who scrambled (this was a larger class) was approximately the same as in the past. There are a higher number of students deferring this year than we generally experience. For individuals who would like more longitudinal information Dr. Kathleen Watson can answer questions. Also more detailed information can be found at www.meded.umn.edu/student/residency/match.

USMLE

Step I scores for TC and Duluth campuses can be found at www.meded.umn.edu/evaluation. Dr. Linda Perkowski reported that students from UMMS-TC have a 95% pass rate and tested higher than the national mean. The graph which plots scores for the subject categories are approximately the same as in other years. She noted the importance of looking at this information longitudinally and looking for upward or downward trends. TC student scores shift to the right which means we have some students who score higher than most.

Generally, MCAT scores are rising across the US and Dr. Powell reported there will be a change in the MCAT in 2015. The Preliminary MCAT Recommendations MR5: 5th Comprehensive Review of the Medical College Admission Test, March 2011 –Newsletter, from the review group, was published recently. SFC members will receive an electronic version of the Preliminary Recommendations for their information. The final recommendations will be approved by the AAMC Board in February and will be out in the Fall. Dr. Powell added the AAMC is taking on the whole admissions process as a project with the MR5 recommendations as part of that review. She also reported at the national level recommendations for 1 Board Exam is still being explored but no changes are coming forth at this time.

Next Meeting:

Scientific Foundations Committee – May 6, 2011