

Scientific Foundations Committee
Meeting

December 3, 2010

7:30 – 9:00 am, B-646 Mayo

In attendance: S Allen, L Anderson, M Becker, A Bleas, B Clarke, E Coleman, A Edvenson, G Filice, B Fleischmann, G Giesler, L Henson, S Katz, R Kempainen, K Lee, S Levine, E Medina, A Minenko, C Niewoehner, J Norrander, P Pant, L Perkowski, D Powell, D Wangensteen, K Watson, T Weinhaus M Woods

Absent: R Hoffman, M Hordinsky, M Lee, T Mackenzie, K Nordby, M Sanders, L Schimmenti, P Schlievert, S Thayer, B Varda,

I. Minutes

November 5th meeting minutes were approved with no corrections or additions.

II. LCME

Update

Dr. Linda Perkowski gave an update on the request Brad Clarke made to course and clerkship directors for course objectives, which were due on October 1st. She noted there are still 4 or 5 courses with no information submitted. The objectives are necessary because LCME requires documented objectives for every course and every session in the course. These are meant to demonstrate how the learning objectives of the curriculum are being met. LCME also requires that it be a searchable mapped database. When the site visit team arrives they will select a topic and will ask where and how often it appears in the curriculum. The request will have a deadline for responding, which could be a time frame of as little as 2 hours or as much as 2 days. The only way to accomplish this is to have all objectives in a searchable database, which makes this request a priority. Several individuals from OME attended the AAMC annual meeting and in LCME training sessions learned that Schools are being cited if unable to fulfill this requirement. Dr. Perkowski will send reminders to those who have not completed this information for their course. She added that the self-study subcommittees will be starting in January and each SFC meeting will include updates on their progress.

III. Discussion

Course Summary Reports

Dr. Niewoehner pointed out that HD-1 was the first course for Year-2 to be rolled out in the revised curriculum. She also noted Dr. Kempainen and the faculty involved in the course had the shortest timeframe for preparation for the newly integrated course and the assessments.

HD-I

With regard to learning outcomes for HD-I, Dr. Robert Kempainen referred to a survey given to students at the end of the course. When asked if they “acquired basic understanding of the subject areas”, the students gave an overall rating of 3.5. The student “LEADS” Report also indicated that students felt they learned a great deal. He reported that the outcomes might have been more positive, but the final exam was very disorganized and student frustration understandably very high.

Dr. Kempainen talked about a review of the HD-I course by Course Directors and what they saw as successes:

- less teaching – eliminated unnecessary redundancies and lecture time was cut back overall
- moved toward reducing large lectures and increasing small groups
 - tuberculosis lecture now in Foundations of Critical Thinking (FCT) cases

- Pathology used PBL lab
- ID taught in large groups as case based with discussion format
- schedule adhered to Independent Learning Time (ILT) unscheduled time
- joint website – student could access all aspects of course
- recommends incorporating other successful ideas from HD-2 through HD-4, to improve student experience.

Course directors also reviewed challenges for HD-I and identified the following concerns:

- Integration – attempts made but improvement needed in efforts to arrange content for multiple disciplines as (appropriately) near to each other as possible
- additional changes in content needed
- how to improve coverage of content (adjusting lectures?)
- areas where some content can be further reduced
- major concern lack of integration in final exam

Dr. Kempainen recommends change in exam and other assessments as very important goals to accomplish. It has been discussed and will need dedicated time to complete. It is important goal to complete it before the course begins, not while it's being taught. Having the basic final exam in place, with the ability to make adjustments to it as the course progresses is a better model and having secure exam makes it possible. An additional concern is if there is going to be one 3-hour final exam for HD-I, fewer questions per subject areas may mean less confidence that students have mastered each discipline. He added that there will be indicators they have learned the global knowledge; he feels this is a trade-off.

Dr. Kempainen didn't have time or experience to establish implementable, meaningful metrics for assessing students beyond the written exam. Exam was to be 2/3 of the total points for HD-I with the remaining 34% to be other methods that are measureable. He noted the logistics of creating additional measures and the time it will take, has to be sorted out, for the Course to improve. He feels to objectively accomplish this in a meaningful and fair manner is a large issue for all of the HD courses. Sharing ideas across all HD courses is a possible solution but is not a clear path, especially for HD-I.

Dr. Kempainen asked if the HD course blocks are meant to resemble each other; such as HD-II not having multiple choice questions and minimizing large group lectures. He asked if this is an over-arching goal of the revised curriculum or are there going to be basic things in common with leeway for course directors to develop their course? He recommends that whoever inherits HD-I should have clear goals for how to proceed. Dr. Filice felt strongly that in spite of the short preparation time the course went well. His understanding a priority goal exists for students to take more responsibility for their own learning. Dr. Kempainen said students in HD-I were asked to use ILT to prepare for lectures and labs, but there was no measure for this criteria. He does not know if student learning has been altered; but noted that in HD-II there is more structure for use of ILT. This may allow for a measurable outcome. The question was asked, whether students learned what they needed and will they be equally or better prepared than in the past? Dr. Kempainen feels they will be equally or better prepared than in the past, though there wasn't a great deal of change in the course's curriculum. The bigger changes include; more integration of the discipline, delivery was equal or better within small groups and more learning was taking place. Also better integration because of timing of disciplines and reduced redundancy allowed more time to learn the material.

Dr. Minenko noted that one way of identifying if learning is improved is retention, which leads to a higher baseline. In her experience with recent instruction with MS-2s she finds there has been greater retention of knowledge; she sees students applying knowledge from HD-1 to new topics in HD-2 in a natural sequence. They are engaged and do refer back to HD-1, which is a measure that she hasn't figured out how to document. Her recommendation is to include pertinent questions in an HD-2 survey. Another

outcome she has observed is a difference in student behavior in their interactions with faculty and possibly that they're more proactive in taking ownership of their learning. Discussion points included:

- feedback from student LEADS was gathered and was positive
- long term data from Step I scores may or may not be indicators
- preparedness moving into Year 3 and 4
- student feedback supports the goal to take more responsibility learning
- data is being collected and the hope is to quantify it
- feedback (evaluations) has highlighted more thoughtful comments than in the past
- recommendation for vertical assessment to determine knowledge needed by Yr-3 students
- gear evaluations for the HD courses toward these knowledge points
- is it possible to determine what skills students need to be competitive for residency
- how should they should they appear MSPE as alternative to Board Scores
- use of student performance data available to faculty advisors, to know better what supports a strong performance in Yr-3 and Yr-4

Dr. Woods did caution that data collection over time will take several years to play out. The current MS-2 students will have a combination of educational experiences and there should be no dramatic changes by the time they take their Step I exams. Expectations are they will do as well as UMMS students the past on Step scores. The current MS-2s may have learned better study skills and/or possibly how to think more critically earlier in their education. These are not easily measured nor would poorer performance be directly attributable to the changes either. Educational administration's expectations are more directly related to the students' abilities that were assessed when they were admitted to the program. Dr. Watson stated an important questions would be, "how well are Yr-2 students being prepared to become Yr-3 students; or "are students able to use what was learned in HD-1 in application to patient care".

ECM-I

Dr. Sharon Allen noted that ECM Part I still has 2 weeks until completion and that her report isn't a complete picture. The final data for ECM I and ECM II will be presented in April, 2011. Overall learning objectives for this course are to make sure that the students can demonstrate communication in medical interviewing techniques and to be able to conduct a general physical exam based on the head-to-toe exam checklist. An additional learning point is for students to demonstrate the beginning of basic clinical reasoning skills through a new technique, hypothesis driven physical exam. Integrating the curriculum to correlate specifically with the Anatomy course was important to reach the level of knowledge students needed to gain. These features of the course are to prepare students to be ready for their clinics experience by March of Year-1. They are prepared to do an adequate interview, physical exam, write it up and present it to a preceptor. This is earlier than they have had practical clinical exposure in the past. As a measure for assessing whether outcomes were achieved, students are evaluated by faculty facilitators of the small groups (10 or 11 students) who they meet with weekly for 10 weeks. The rest of the evaluation will take place in the continuation of the course, which is an interview practical in writing the medical history, in essence a practical of their medical exam.

Data for the first 10 weeks, was based on review of communication skills, interviewing skills and physical exam skills for the organ systems that they had covered by early October. They were rated on a scale (1) unsatisfactory, (2) needs work, (3) meets expectations or (4) exceeds expectations. Based on the data provided by Dr. Allen, 90% of the students were rated at a "3" and 5% at "4" and less than 1% were rated a "2". Overall the data indicates that the course is going very well.

Organization of the Moodle web site has been a concern; there has been confusion and multiple means of communication using both Moodle and email; and at times there was conflicting information. Better management of the course web site will be important to improving the course; using 1 person and 1 method. Space availability in the IERC and timing of those activities caused some students to have the

hypothesis session before getting the appropriate preliminary instruction, this has been resolved with the IERC. The radiology portion of the course will need to correlate better to Anatomy and with better communication with preceptors, it should go more smoothly. Kacia Lee MS-1 added that students would make better progress with radiology results if the preceptor were more descriptive for what was being viewed and would give examples of normal and abnormal to help students navigate what they were seeing. Dr. Minenko added that preceptors need be advised of the students baseline knowledge. Dr. Allen felt this could be resolved in working closely with the preceptors. Dr. Katz asked if TA's were used and what role they played; Dr. Allen reported that Yr-3 Tax were previously trained and they were invaluable in small group trainings for the hypothesis training, especially helping to divide up the class into smaller numbers per group.

Next Meeting:
Scientific Foundations Committee – January 7, 2011