3-3-2015

2015 March 3 - Medical Student Education Committee Minutes

Medical Student Education Committee, East Tennessee State University

QUILLEN COLLEGE of MEDICINE
EAST TENNESSEE STATE UNIVERSITY

Medical Student Education Committee

Minutes: March 3, 2015 – Approved March 17, 2015 with change

The Medical Student Education Committee of the Quillen College of Medicine met on Tuesday, March 3, 2015 at 4:15 pm in the Academic Affairs Conference Room, Stanton-Gerber Hall.

The meeting had originally been scheduled for February 17, 2015, but had to be reschedule twice due to closure of East Tennessee University campus offices for inclement weather conditions.

Voting Members Present:
Ramsey McGowen, PhD, Chair
Caroline Abercrombie, MD
Reid Blackwelder, MD
Michelle Duffourc, PhD
Beth Fox, MD
Jennifer Hall, PhD
Howard Herrell, MD
Dave Johnson, PhD
Paul Monaco, PhD
Jerry Mullersman, MD, PhD
Omar McCarty, M1
Jessica English, M2
Ken Olive, MD

***Ex officio* / Non-Voting Members & Others Present:**
Tom Kwasigroch, PhD, *ex officio*
Theresa Lura, MD, *ex officio*
Robert Acuff, PhD, co-chair M1/M2 review subcommittee
Cindy Lybrand, MEd
Lorena Burton, CAP

Shading denotes or references MSEC ACTION ITEMS

1. **Approval of Minutes**
   The minutes of the January 20, 2015 Retreat meeting were approved as distributed.

Actions: Motion by Dr. Monaco, Second by Dr. Hall, unanimously approved

2. **NBME and USMLE Performance Trends – Step 1**
   MSEC reviewed and discussed student performance from the past two years on standardized exams, NBME subject exams, and Step 1 and Step 2 scores. One of the areas MSEC wanted to look at was the possible correlation between weaker performance on pre-clinical subject exam and Step 1 scores. Dr. Olive gathered data from 2013 and 2014, and presented an Excel document. The data tracked the subject exam scores of all pre-clinical students who had failed Step 1. The data also presented the subject exam scores of all students who scored below the 10th percentile on any subject exam and their Step 1 scores. Dr. Olive summarized the information by pointing out that there is no student who failed Step 1 that did not have at least one subject exam score below the 10th percentile. It does not mean that everyone with a subject exam below the 10th percentile will fail Step 1, but everyone who did fail Step 1, did have at least one subject exam below the 10th percentile. The data suggest that after a student has scored below the 10th percentile on several subject exams, the probability of failing Step 1 is increased. Discussion included that the Comprehensive Basic Science exam will provide content area data that can be compared to individual student subject exams.

MSEC will continue to review student performance to include a comparison of the clinical subject exam scores to Step 2 scores. Discussion among committee members included looking at admission data, state versus national averages, sequencing of subject exams in relationship to the Step 1 exam, and a review by course directors of how subject exam scores are used as part of the final course grade. All of these may allow identification of interventions that may provide opportunities to discuss with students the probability of failed grades, subject exams, courses, and eventually residency placement. Dr. McGowen suggested that in depth discussion continue at future MSEC retreat meeting(s).

3. **LCME Element 7.3 Curricular Content – Scientific Method/Clinical/Translational Research**
To educate MSEC members about new accreditation standards and prepare them for fully over-seeing the curriculum, fulfilling requirements for curriculum review and understanding accreditation standards, Dr. Olive presented LCME element 7.3:

The faculty of a medical school ensure that the medical curriculum includes instruction in the scientific method (including hands-on or simulated exercises in which medical students collect or use data to test and/or verify hypotheses or address questions about biomedical phenomena) and in the basic scientific and ethical principles of clinical and translational research (including the ways in which such research is conducted, evaluated, explained to patients, and applied to patient care).

The standard and the items related to the standard from the LCME Data Collection Instrument (DCI) were presented. A comparison of the old standard ED 17.A and responses from the 2011 database were provided as well as the Review of the Data Collective 7.3 Narrative Response:

List all required courses and clerkships that include formal learning objectives that address the basic scientific and ethical principles of clinical and translational research and the methods for conducting such research. Note the location(s) in the curriculum in which medical students learn how such research is conducted, evaluated, explained to patients, and applied to patient care and how students' acquisition of this knowledge is assessed

Opportunities to expand areas in the curriculum also were identified. Dr. Olive asked the committee to consider how the curriculum could respond to the narrative review today and identify where in the curriculum this is met. Committee members offered possible areas that may be looked at to include: Case Oriented Learning (COL) course, Profession of Medicine (POM) course, Institutional Review Board (IRB) process and / or the Collaborative Institutional Training Initiative (CITI). The CITI idea brought additional positive comments/solutions and may be some-thing we want to pursue. Dr. Olive stated that in our Graduation Questionnaire 40% of our students identified they had participated in some type of research project. Dr. Olive concluded that we cannot go through our comprehensive 4th year review without addressing LCME element 7.3.

4. **Course review on Path - Patho-Phys VS. Histo-Phys = percentage of NBME questions**
Dr. Olive provided a report on curriculum content in response to a question that came up through the M1M2 review process as to whether we have adequate coverage in our curriculum of Pathology and Pathophysiology. Dr. Olive provided one definition of Pathophysiology:

The study of the biologic and physical manifestations of disease as they correlate with the underlying abnormalities and physiologic disturbances. Pathophysiology does not deal directly with the treatment of disease. Rather, it explains the processes within the body that result in the signs and symptoms of a disease.

Dr. Olive's review has identified that we adequately cover both in our curriculum.

Dr. Olive's review found that USMLE Step 1 and 2 do not report a separate Pathophysiology score, but the NBME subject exam does report a separate Systemic Pathology and Pathophysiology grouped as a measured discipline/system of the subject exam. Dr. Olive reviewed two years of NBME data and found no glaring results for our students versus the national average. Further, our curriculum has two courses**,** Practice of Medicine and Medical Pathology**,** which include Pathophysiology in their list of objectives for the course. Data from the AAMC 2014 Graduation Questionnaire identifies Pathophysiology and the majority of our students rated curriculum content in this area as excellent. In summary**,** we have adequate coverage of Pathophysiology in the curriculum.

Curriculum Integration Subcommittee (CIS) Report – Biostatistics / Evidence Based Medicine (EBM) Thread

The new Curriculum Integration Subcommittee (CIS) is charged with identifying objectives, placement of content, and assessment of integrated content threads across the curriculum. Dr. Herrell, CIS Chair, began the report by noting that the subcommittee's tasks are tough to summarize quickly. The CIS report included a written summary of thread objectives, curriculum findings and recommendations, followed by a comprehensive written report that includes much more background and detail.

Course	Current Content	Short Term Improvements	Long Term Improvements
M1			
Profession of Medicine	Population health measures; EBM; cognitive biases	Introduce Thread with Objectives; stress import of EBM; introduce debiasing strategies	Session on IRB; problems with medical literature, textbooks, etc.
COL	Students do literature searches and present topics	Introduce PICO, etc.	
Intro to PE	None	Introduce predictive values of PE maneuvers	Test knowledge of appropriate use of exam online
Biostats & Epid	Passim	Add content related to outbreak investigation; conditions for assuming causation; ROCs	Examples of OR vs RR; appraisal of drug ads; surrogate outcomes; appraisal of study designs; CITI training, ARR; hazard ratios
Cadaver Cases	Students do literature searches and present topics	Require incidence, prevalence rates, etc. for diseases; require data about predictive values of tests, etc.	Emphasize PICO searches; encourage info about next steps in treatment and statistics behind them

M2			
Practice of Medicine	Emphasis on incidence, prevalence, risks, df dx	Emphasize probability-driven df dx and testing based on predictive values	Consider statistics behind treatment choices, intended and unintended consequences
Microbiology			Outbreak investigation modules
Pharmacology		Present some drugs in terms of NNT, NNH	Introduce EBM databases re drugs
M3			
Transitions	Overview of EBM databases	Review PICO searches, levels of evidence	Session on probability based Df Dx, predictive values of common tests, etc
Core Clerkships	Various passim	Encourage EBM searches (PICO)	Session presenting EBM issues in specialty
Community	Review of library resources, CDC searches, public health projects		
Specialties	Incidence, etc. of diseases in H&P		Require discussion of pretest prob., stats behind tests, etc.
M4			
Inpatient Selective	Dependent on preceptor	Require brief EBM presentation	Participate in Journal Club
Keystone	Session on review journal articles		

In summary, the Biostatics / Evidence Based Medicine (EBM) Thread review shows we are doing a satisfactory job in our curriculum, we are meeting the objectives, but there are opportunities for improvement. Discussion from the committee members identified the delivery of the recommendations could come from the subcommittee to the Course and Clerkship Directors, but it needed to be shared discretionarily, but in a timely manner. An on-going conversation between the Curriculum Integration Subcommittee (CIS) and the Course and Clerkship Directors, on a frequent basis, did not need to happen. It is important to document the final Curriculum Integration Subcommittee (CIS) report to include the short and long term recommendations to MSEC.

5. Action: At the recommendation of the subcommittee, MSEC unanimously accepts the Biostatistics / Evidence Based Medicine (EBM) Thread Content in the curriculum as adequate with room for improvement. MSEC authorizes the Communication with Course / Clerkship Directors will be coordinated administratively based on recommendations from the Curriculum Integration Subcommittee following determinations made by MSEC.

6. M1/M2 Review Subcommittee Reports

Dr. Acuff, subcommittee co-chair, presented three annual reports:

Introduction to Physical Examination 2014 Annual Review
Course Directors: Peter Bockhorst and Jason Moore

The review found that the course is well received by the students.

Concerns raised:

- Student comments included difficulty retaining physical exam skills from end of course through the OSCE. With the exception of inconsistent practice during spring preceptorships, students have little consistent opportunity to practice these skills in a mentored environment again until third year clinical clerkships.
- There may be some inconsistency in grading. It is suggested that the course directors ask the Standardized Patients (SPs) to grade a physical examination that the course directors either perform in person, or provide an exam on video.

Suggestions included:

- Extending the course over the whole M1 year, or alternatively, to integrating mentored physical exam skills practice into other courses throughout the M1 year.
- At least once, permit the students to observe a complete physical exam that the course directors conduct on a Standardized Patient (SP). It is recognized that clinicians have their own style or rhythm and there will be differences.
- Stress to clinical instructors that they underscore how their area or specialty relates to items on the OSCE.
- Keep instruction sheets and videos of physical exams posted on D2L so that students have access to them for review during the rest of their first and second years.
- If possible, deliver the OSCE closer to the end of class for students to perform optimally.

Opportunities identified:

- Students overwhelmingly stated their appreciation of the opportunity to learn from and interact with visiting physicians who are experts in their fields, but the presented material was too advanced for first year medical students to either understand or apply.
- Continued correlation with the concurrent Gross Human Anatomy as this was identified as a strength of the course.
- Consider replacing the pre-OSCE review with a demonstration of a complete, head-to-toe physical exam.

Action: At the recommendation of the subcommittee, MSEC unanimously approved the Introduction to Physical Examination 2014 Annual Review report.

Profession of Medicine: Patients, Physicians, Society 2014 Annual Review
Course Director: Teresa Lura

Students commented that the course schedule with the easy to follow, day by day assignment list, was a very user friendly and well organized resource.

Concerns raised:

- Room reservations for medical students and graduate student courses should have priority over outside party reservations.
- Clinicians are often difficult to find in numbers required to lead the small groups.
- Some of the clinically applied content for this course would be better served to MS2s, or at least re-visited in the M2 year. Student and faculty concerns identified that a portion of the content within this course is difficult to make relatable to first year medical students due to their limited patient exposure.

Suggestions included:

- Continue to work to keep written communication instructions in brief easy to read formats.
- Continue to look for ways to replace lectures and class meetings with interactive and application based activities.
- Some form of assessment is necessary for the service-learning activities and reflections seem an appropriate method.

Opportunities identified:

- Explore the MS4's as a resource in many of the course sessions. This might be initiated with a fourth year "mentoring" elective.
- Extending the course through both the Fall and Spring semesters could allow for further integration with COL and Lifespan & Development and allow COL facilitators to help alleviate some of the issues with identifying faculty for small group sessions.
- Integration of the course's current M1 spring semester through the M2 year would allow incorporation with the Practice of Medicine (POM) case scenarios and small group sessions – possibly alleviating clinical faculty availability issues.
- The patient panel is useful as an introduction to the importance of the White Coat Ceremony, but an additional panel could be a valuable activity in the spring semester immediately prior to the M1 preceptorship.
- Integration of scenarios (or identification of existing scenarios) during the clerkship years could help disperse some of the content covered in the course.
- Evaluate the development of a singular "Doctoring" / "Becoming a Physician" thread to assist with vertical integration among the Section of Medical Education courses. A thread beginning in the first year Professions of Medicine Course and stretching throughout the entire four years of the curriculum to end in the M4 Keystone course.
- Hearing from a physician how he or she incorporates some of the community agencies into his or her practice may help reinforce and/or clarify to students the importance participation in the Community Agency Fair. Integrating use of the services seen at the Community Agency Fairs into patient scenarios (COL or Practice of Medicine) could provide a means of application to provide further relevance.

Discussion included:

- Students' comments included appreciating the brief instruction on cultural and gender conflicts in communication. Some students requested more exercises and / or case studies -- possibly consider medical interpreter scenarios. The Course Director recognizes that further development of the session could be explored and has expressed interest in contacting Dr. Katie Baker at the College of Public Health.

Action: At the recommendation of the subcommittee, MSEC unanimously approved the Profession of Medicine (Patients, Physicians, Society) 2014 Annual Review report.

Medical Immunology 2014 Annual Review
Course Director: Robert V. Schoborg

The course organization, faculty lecture styles, and handout organization facilitate student learning as evidenced by student evaluations, student grades and student performance on the Immunology section of STEP1 exam. Faculty in this course should be commended for the level of excellence in teaching displayed in this course. There are no major changes are needed.

Concerns raised:

- The short duration/high volume of this course makes it difficult for students to digest the complex concepts introduced in this course. It also makes it difficult to add multiple graded activities to the course without raising the student's stress levels in a counter-productive way.
- Timing or changing of exam schedules made after a consensus is reached by course directors also raises student's stress levels. Exams II was not ideal (with two other major exams, a major report due and the beginning of a new course).

Suggestions included:

- Consider alternatives to "de-compress" this course – see concerns raised.
- Avoid making significant changes to the exam schedules after they are set. Contact all affected course directors immediately and offer the option of calling another meeting in which to propose compensatory changes.

Opportunities identified:

- Explore a mechanism to provide students and faculty with access to USMLEWorld QBANK, USMLE RX, or other question database services; before or at the beginning of the second year. This will provide examples of 2nd order, Step-1-type questions currently being used in Medical Immunology and other courses.
- Student feedback identified some lectures appeared to be unnecessarily detailed, a joint review of all course lecture materials by course faculty could help to streamline the material covered and eliminate any superfluous information from the course.
- Student feedback on group reports for "Primary Immunodeficiency's" was mixed. Adding a lecture component to this section might enhance students understanding of this subject.

Action: At the recommendation of the subcommittee, MSEC unanimously approved the Medical Immunology 2014 Annual Review report.

M3/M4 Review Subcommittee Report

Dr. Mullersman, subcommittee chair, presented one annual report

Transition to Clinical Clerkships Annual Review 2014
Course Directors: Caroline Abercrombie and Martin Eason

Concerns raised:

- Student opinion is evenly divided between excellent or good, and satisfactory, marginal or poor between the 2013 and 2014 periods/courses. Given the purpose of this course is to facilitate the transition between the basic science and clinical years, this is a concern.

Suggestions included:

- It is recommended that large group activities, such as panel discussions and lectures, be minimized in favor of active learning.
- Increase emphasis of instruction in writing H&Ps and SOAP notes in a format applicable to the clerkships and in formulating differential diagnoses.
- Include a refresher physical exam session during this course.
- Continue to deliver the OR/sterile scrub procedure lecture in an online format.
- Continue to deliver the OB/Gyn session, with an added communication component, in the standardized patient center.

Opportunities identified:

- Implement a separate evaluation of the other elements of the Transitions week (including the OSCE exam) and the activities that fulfill requirements for students to enter the third year.
- Add ultrasound capability to the simulation lab that will enable training in the Fast exam.
- Facilitate the collection of input from Quillen faculty with regard to procedures that should be learned by students during this course.

Discussion included:

- Student evaluation was generally favorable regarding pre-course preparation versus additional lecture hours, but it was noted that the volume of material in pre-course preparation is significant. The course directors concur with this and this is an area of under revision.
- The session on the Perspective and Psychosocial Needs of the VA Population, which received more unfavorable feedback from students than favorable, was replaced in 2014 with a cultural competency session that addressed veterans' needs, as well as the needs of racial minorities. This replacement session also received low marks in student evaluations. While cultural competency is important, perhaps its placement in transition week - with its focus on practical skills for the wards and the clinic is not appropriate.
- The altruism session was evaluated similarly to the cultural competency session.
- Budget preparation and discussion for materials and supplies needs to occur early in the planning of the course.

Action: At the recommendation of the subcommittee, MSEC unanimously approved the Transition to Clinical Clerkships Annual Review 2014 report with the exception of Dr. Abercrombie's abstention as course director.

Due to the lateness of the meeting all remaining Standing Agenda Items: Subcommittee(s), Working Groups & Technology Updates were postponed to the March 17, 2015, meeting.

Adjournment

The meeting adjourned at 6:05 p.m.