The Medical Student Education Committee of the Quillen College of Medicine met on Tuesday, April 22, 2014 at 4:15 p.m. in the Academic Affairs Conference Room, Stanton-Gerber Hall.

Voting Members Present:
Ramsey McGowen, PhD
Caroline Abercrombie, MD
Michelle Duffourc, PhD
Jennifer Hall, PhD
Howard Herrell, MD
Dave Johnson, PhD
Paul Monaco, PhD
Jerry Mullersman, MD, PhD, MPH
Rebekah Rollston, M2

Ex officio / Non-Voting & Others Present:
Tom Kwasigroch, PhD
Theresa Lura, MD
Ms. Carol Plummer
Mr. Doug Taylor
Cindy Lybrand, MEd
Cathy Peeples, MPH
Lisa Myers, BA

Shading denotes or references MSEC ACTION ITEMS

1. Approval of Minutes
The minutes from the 3-18-14 meeting were approved as distributed.

2. Topics

a. Proposal for Modifying the M4 Year – Effective for the Class of 2015
[Basis for proposal included review of medical education / AAMC literature, comparison with peer schools and consultation with Quillen’s Office of the Registrar]

Dr. McGowen / Cathy Peeples

• Issue

In the Spring semester, the M4 schedule has only three 4-week blocks. There are not enough slots for all students who need them to be enrolled during the three blocks and complete required rotations before graduation.
- M4 students are encouraged to take Away Electives and arrange 15-18 interviews, depending on the specialty
- Majority of students take the first 2 weeks of Block 1 off to study for Step 2 CK and then take two Away Electives
- Interviews start in mid-September and continue through January

Students going into more competitive specialties who do three Away Electives almost always have to schedule four Selectives in the Spring, pushing them past graduation.
• Current M4 Curriculum

- Consists of 35 weeks of required educational experiences: 16 weeks of Selectives and 16 weeks of Electives (including Away); rotations are either 2 or 4 weeks in duration

- Includes four weeks in each Selective category: Intensive Care, Inpatient (IM required of all students), Specialties/Subspecialties & Ambulatory Care, plus the required 3-week Keystone course

- Fall semester has four 4-week blocks during which Selectives can be scheduled. (Blocks when students are studying for Step 2 and participating in Away Electives.) Scheduling Selectives is restricted during two additional 4-week blocks, Oct 27-Dec 19, when most interviews occur

- Current Spring schedule, consisting of three 4-week blocks for Selectives or Electives, then Keystone, results in an open 3-week block before graduation (Those who need to schedule either two 2-week rotations or a 4-week rotation must complete their requirements after graduation)

• Proposal

- Drop the requirement for a Specialty/Subspecialty Selective
- Maintain the requirement that all students must take the Internal Medicine Sub-internship Selective, plus one Intensive Care Selective and one Ambulatory Care Selective; for RPCT students, the third Selective would be an RPCT rotation with an RPCT 4-week Elective option
- Reduce the number of required weeks of Selectives from 16 to 12
- The remaining weeks will consist of Electives plus Keystone by adjusting the calendar by either:
  
  Reducing the number of required curriculum weeks from 35 to 31 by dropping the requirement for the Specialty Selectives (allowing students more flexibility)

  OR

  Reducing the number of required weeks to 33 = students would have to take an additional 2-week Elective

  AND

  Moving Keystone to begin four weeks prior to graduation resulting in an open 2-week block before that course (and only one week after)

- Students will continue to be limited to only two Selectives in the same specialty area; they will be strongly encouraged to take a specialty Elective in their field and allowed up to 8 weeks of Away Electives

- Of the 18 Specialty Selectives, all except 4, are also offered as Electives; 4 of the 7 Inpatient Selectives are also Electives
Members’ discussion of our M4 curriculum and the proposed changes included:

- Acknowledgement of the national debate on whether the fourth year of medical school should tailor or round out medical education; also, the increasing competition for residency positions
- Unanimity regarding the value of having an additional 2-week Elective; support for expanding online Electives
- Notation of the clinical chairs’ general agreement with the proposed changes and the Registrar’s recommendation that they be implemented

**ACTION:**
On a motion by Dr. Herrell and seconded by Dr. Monaco, MSEC voted to modify the M4 curriculum for 2014-2015 as follows:

1. Drop the requirement for a Specialty/Subspecialty Selective
2. Reduce the number of weeks of required educational experiences to 33
3. Require students to take an additional 2-week Elective
4. Move Keystone to begin four weeks prior to graduation

MSEC will request that Inpatient & Specialty Selective directors convert to an Elective any Selective rotation that is not currently being offered as one.

**b. Revisit: Comprehensive Basic Science Exam (CBSE)**

Members discussed five admin / faculty proposals for use of the CBSE at Quillen.

**ACTION:**
On a motion by Dr. Herrell and seconded by Dr. Monaco, MSEC agreed to the following for administration of the Comprehensive Basic Science Exam, beginning in 2014-2015.

1. Goals for the CBSE are first formative, then as a gateway exam. It will be offered at the end of M1 and M2.
2. After the M1 exam, students will be provided with score bands reflecting their performance in different concentration areas. Students who perform below 1 standard deviation in topics which they have already covered (anatomy, biochemistry, histology, physiology) will need to develop a remediation plan to improve their mastery of these topics.
3. Students who score in the bottom 10th percentile on the M2 exam will develop a remediation plan that must be approved by the Executive Associate Dean for Academic Affairs or the Associate Dean for Student Affairs. Completion of the plan will be considered in determining whether the student is eligible to take USMLE Step 1. Students who score in the top 1/3 of class would receive a letter of commendation identifying them as having attained Honors (top 10%, High Honors) in Biomedical Sciences Integration, which would be noted either on the transcript and/or in the MSPE.

| Location(s): | East Tennessee Brain & Spine Centers, Johnson City & Kingsport  
|             | Johnson City Medical Center & Holston Valley Medical Center |
| Instructors / Responsible Faculty: | David Wiles, MD  
|                                       | Tim Fullagar, MD  
|                                       | Greg Corradino, MD  
|                                       | Valentine Nduku, DO |
| M3 Specialties Clerkship: | Yes |
| Max. students per period: | 1 |

Goal:
Rotation will provide an in-depth insight into the daily management of neurological disorders. Students will experience multiple outpatient settings at our offices and multiple inpatient settings. Students will be exposed to minimally invasive surgical techniques, advanced cranial procedures and pediatric neurosurgery.

**Course Outline:**
*(Topics/ types of activities)*

*The student will:*
1. be assigned to the clinical practitioners in the Neurosurgery specialty and function as an integral part of the Neurosurgery team.
2. be on call with the Neurosurgery team as identified and in accordance with the QCOM work hour policy.
3. receive bedside training during the patient rounds as well as during examination and evaluation of both inpatient and outpatient consultations.
4. be expected to perform history and physical examinations, including complete neurological evaluations of all patients assigned.
5. participate in the performance of special radiographic procedures and will be expected to assist in the operating room.
6. attend Surgical Grand Rounds and conferences as identified by their attending(s).

**Objectives:**
*At the conclusion of this rotation the student will be able to:*
- Perform and record an accurate history and physical examination (H&P) of the neurosurgical patient with emphasis on the more common neurological diseases and injuries.
- Evaluate patients with neurological injuries to include imaging and other advanced technologies.
- Develop a differential diagnosis and patient treatment plan that includes the appropriate neurosurgical diagnostic procedures and imaging.
- Communicate effectively with patients, family members and the health care team in a respectful and professional manner, while receiving and giving feedback during H&Ps, ward rounds, case presentations and in the operating room.
- Demonstrate effective sterile technique and increase knowledge base of the basic neurosurgical operative procedures and post-operative care of the neurosurgical patient.

**Educational Methods:**
Clinical Experience – Ambulatory & Inpatient, Demonstration, Patient Presentation – Faculty & Student, Independent Learning

**Assessment Methods:**
Clinical Documentation Review, Clinical Performance Rating, Oral Patient Presentation, Participation

**Additional Notes about the Rotation:**
The student will be assigned both Mountain States and Wellmont facilities’ access to patient record systems (EHR and EPIC). Orientation with Mountain States and Wellmont facilities will be done by each respective OIT department and Medical Education department and need to be completed prior to the start of the rotation. The Neurosurgery Services will provide the student with specific department/services written procedures.
The Brain and Spine Centers, currently using Quillen residents, will be new training locations for medical students. Members discussed this offering in regard to its goals and objectives and having been vetted by the Quillen Department of Surgery.

**ACTION:**

*On a motion by Dr. Johnson and seconded by Dr. Abercrombie, the committee approved the Neurosurgery–Brain & Spine Elective.*

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**d. Report to MSEC: [M1/M2 Review Subcommittee] Comprehensive Review of Immunology – Rob Schoborg, PhD, Course Director**

**Dr. Johnson, Subcommittee Chair** [Primary reviewers: Antonio Rusiñol, PhD and Rebekah Rollston, M2]

- Reviewers’ comments / collaboration with the course director regarded:
  - Course performing very well; faculty to be commended for the level of excellence
  - Good student performance in the course and on Step 1
  - Consideration of:
    1. More work with first year course directors to expand integration and plan beneficial redundancies among courses
    2. Reduction of high-stakes nature of the assessment with alternatives to exams (e.g., weekly/daily quizzes, TBL activities, etc.)
    3. Use of a customized Immunology shelf exam (CBSE or Immunology module of the Microbiology NBME)
    4. Expansion of self-directed learning activities

- **Short-term recommendation**
  - Consider 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 M2 to provide examples of Step 1 type questions

- **Long-term recommendation**
  - Consider options to decompress the course
    (Course director suggested extending M1 Spring semester by two weeks or starting M2 Fall semester two weeks earlier, or to offer Immunology at the end of M1, which would allow the four Microbiology blocks to fit in the M2 Fall semester.)

- Dr. Johnson announced new subcommittee members: Dr. Bob Acuff & Anand Saha, M1

MSEC discussion focused on overall preparation for USMLE and helping students make informed choices about review materials. Providing a presentation in an early M2 Career Exploration session was suggested. NBME self-assessment tools were mentioned.
ACTION:
On a motion by Dr. Duffourc and seconded by Dr. Abercrombie, the committee approved the new M1/M2 Review Subcommittee members and accepted the report on the comprehensive review of Immunology.

Faculty will be reminded of the availability of guest access to all course D2L sites.

e. Reports to MSEC [M3/M4 Review Subcommittee]

Dr. Mullersman, Subcommittee Chair

Annual Review of 2012-2013 Specialties Clerkship – Daniel Wooten, MD, Clerkship Director

- Rotations
  2 weeks Internal Medicine subspecialty
  2 weeks Surgery subspecialty
  2 weeks specialty elective

- Content chosen by students was variable, reflecting their desire to explore particular medical specialties
- Instructional hours and length of clerkship were deemed appropriate
- Variety of instructional methods appeared to have actively engaged students
- Assessment methods = narratives by Dr. Wooten; relative importance of attendings' input in determining final grades was not well documented

- Short-term recommendation
  - Ask Dr. Wooten to encourage all participating preceptors to have a brief orientation at the beginning each two-week Specialty experience; this communication should provide students with distinct learning objectives and clear expectations for the rotation

- Long-term recommendations
  - Institute the proposed plan to further expand specialty opportunities
  - Evaluate the addition of narrative assessment of students
  - Request that Dr. Wooten document the grading system used by the Specialties clerkship; students and preceptors should have access to an understandable explanation of the manner in which grades are calculated
  - Consider calendar / organizational changes that could reduce problems reported by students (e.g., the challenge of undertaking this clerkship at the beginning of M3 before having had any of the others)

ACTION:
After discussing the subcommittee’s recommendations for the Specialties Clerkship, members concluded that the best approach for initiating improvements would be for the EAD, Dr. Olive, to discuss the findings with Dr. Wooten.
Comprehensive Review of 2012-2013 Internal Medicine Clerkship – Vijay Ramu, MD (until August 2013), Patrick Macmillan, MD & Gene LeSage, MD, Clerkship Co-Directors

- Report detailed aspects of administration, content, pedagogy, quality of teaching and assessment

Discussion primarily regarded:
- Course objectives not being well articulated in terms of the nature and extent to which knowledge or skills need to be acquired
- Content gaps identified by the current clerkship directors in rheumatology & infectious disease
- Decreased level of NBME performance since advent of 6-week rotations; gaps suggested by NBME sub-scores in Diseases of the Respiratory System & Emergency Department
- Multiple issues related to assessment of student performance / grading system
- Frequent complaints by students and actions underway or planned by the clerkship directors

- Short-term recommendations (in collaboration with directors)
  1. Reorganize and clarify the syllabus
  2. Improve and map the learning objectives
  3. Update list of required procedures
  4. Improve didactics
  5. Eliminate redundancies
  6. Shorten cardiac rehabilitation session
  7. Consider allowing students more access to patients
  8. Standardize the learning experience among the three training sites
  9. Give consistent feedback on students’ H&Ps and progress notes
  10. Provide better written quiz questions
  11. Improve execution of the mid-clerkship review
  12. Reconsider weight of NBME in calculating final grade

Subcommittee advised that another review following Period 4 (December 2014) is warranted; progress on recommendations should be assessed.

- Long-term recommendations
  1. Consider lengthening the Internal Medicine clerkship from 6 weeks to 8 weeks
  2. Expect all courses and clerkships to fully document their grading system, including an explanation of their conversion of NBME scaled scores and the breakdown of assessment methods yielding a point total on the 100-point scale that determines letter grades
  3. Revisit the Clinical Shelf Exam Policy; better explain underlying philosophy and goals and provide specific guidance on cutoff scores
ACTION:
Members accepted the M3/M4 Review Subcommittee’s report on their comprehensive review of the 2012-2013 Internal Medicine clerkship. MSEC will monitor and revisit the issues identified in the subcommittee’s recommendations. The committee and Academic Affairs will review the Clinical Shelf Exam Policy.

f. Standing Agenda Item: Updates on Subcommittees and Working Groups; Technology

Ms. Lybrand

• In addition to the M1/M2 Review Subcommittee, Dr. Bob Acuff is a new member of the Nutrition working group
• CIF group members have met with Dr. John Kalbfleisch (Biostatistics & Epidemiology) and Dr. Mitch Robinson (Cellular & Molecular Medicine)

3. Recent documents / topics

Proposal: Modification of M4 Curriculum

Proposals: Use of Comprehensive Basic Science Exam (CBSE)

M4 Elective Proposal: Surgery – Neurosurgery-Brain and Spine

Report: [M1/M2 Review Subcommittee] Comprehensive Review of Immunology

USMLE Review Options


4. Announcement

The next MSEC meeting will be on May 20, 2014; MSEC Annual Meeting has been rescheduled for June 3, 2014.

5. Adjournment

The meeting adjourned at 6:16 p.m.