

Module Review

Musculoskeletal/Skin

Course Director: **Marcas Bamman**
Course Co-Director: **Winn Chatham**
Course Co-Director: **Patricia Mercado**

Course Date: **Aug. 10, 2009 to Sept. 12, 2009**

Review Date: **May 26, 2010**

Present:	Daniel M. Avery	Review Committee Chair
		Member, Preclinical Sub-Committee
	Majd Zayzafoon	Review Committee Co-Chair
	Cathy Fuller	Chair, Preclinical Sub-Committee
	James Jackson	UME
	Marcas Bamman	Course Director
	Winn Chatham	Course Co-Director
	Patricia Mercado	Course Co-Director
	Kristina Woodley	UME
Not Present:	Erica Stevens	Student Course Representative
	Rachel Martin	Student Course Representative

Review Process:

The module review process consists of three parts; the self-study conducted by the course directors with the aid of UME, the review, i.e., the face-to-face meeting between representatives of the pre-clinical sub-committee of the MEC, the student representatives and the course directors (the review committee) and the final part, the report to the Pre-clinical sub-committee and to the MEC. The review committee received the self-study material in advance of the meeting. Below is a summary of the face-to-face meeting, highlighting strengths and weaknesses of the course and outlining areas for improvement. This is followed by the detailed report, which provides the rationale for the recommendations and overall evaluation.

Summary:

Musculoskeletal/Skin was a successful module. The module directors and the faculty (35 teachers from 17 departments and divisions of the School of Medicine) were a key for the success of the module. In general, the module directors achieved their overall goal of providing an excellent instruction in the field of Musculoskeletal Disease and Dermatology. A great of time was put into developing this module, which in and of itself is a difficult area of medicine, both for learners, and those mature in the practice of medicine and its subspecialties. The

module directors and faculty should be commended for a great effort in making a difficult subject manageable for those learning. Neither of the students representing the class were present for the review.

Strengths:

Goals & Objectives: Goals and objectives were clearly outlined and details of the course presented.

Faculty: The course director and 2 co-directors were seen as a major contributing factor to the success of the module (Drs. Bamman, Chatham and Mercado); all were helpful and addressed concerns quickly. Dr. Bamman did an outstanding job presenting the details of the course. He was very prompt with responses to questions and concerns. Dr. Elzie was an invaluable component to course; her knowledge and patience made for a sterling lab experience. She went above and beyond. Dr. Kesar was very helpful in small groups. Module directors were readily available, helpful and tried their best to facilitate learning

Components: The best components were lectures, labs, clinics and case presentations. The anatomy lab was wonderful and the best tool for learning. Clinics, lectures and patient interactions were good and contributed to learning. Case conferences with live patients was also very helpful. Clinics sessions were great teaching tools and highly rated. Patient interactions integrated into this module were the highest yield learning experience.

Examinations: Practice exam was very helpful. Tests focused on the objectives.

Overall: MS/Skin module has been the best module with the exception of CV. This was an extremely helpful module. Faculty have done a fantastic job in improving the course from the previous problematic first year. The course overall emphasized the facts was well-organized with good quality, strong in clinical correlation and concepts taught well.

Weaknesses:

Goals & Objectives: A few students thought that learning the objectives was not helpful. Sometimes the learning objectives may have been too broad

Faculty: Sometimes lectures were too long and occasionally went over allotted time regularly although they closely approximated the 20 hour/week goal. However, the lectures did not start until 9 AM. The addition of anatomy added additional time to the schedule. Lectures accounted for 50% of the course time.

Components: ARS was mainly used to take attendance. Small groups, take-home projects and ICM were not helpful to some students. Variable formats and activities were used for presentation of material. The single take home project was not appreciated by some students as a method of working together to solve a clinical problem. However, additional activities after

the lectures accounted for only a small number of hours per week. Lectures discussing surgical procedures was not helpful to second year medical students and will be replaced with other material in Dermatology.

Examinations: Some students thought that the examinations were not constructed well and the third exam was not straightforward. After reviewing by this committee, the examinations were appropriate and the third examination was the fairest. The examinations were a reflection of how the student performed. the All examinations tested concepts.

Overall: Some students thought the amount of work required was unnecessary and there may be unrealistic expectations regarding amount of material to learn. The Musculoskeletal/Skin Module is one of the more difficult modules to learn and requires a breadth of material to be mastered for medical students.

Recommendations for Improvement:

Goals & Objectives: See above comments.

Faculty: Continue availability of course directors and faculty are integral to the continued success of this Module. While the anatomy component was well liked, continued integration of Dr. Elzie and anatomy labs in this module will require longer hours. Students recommended limiting contact hours to a maximum of 20 hours per week; however, more anatomy exposure will increase that number and most certainly require lectures to begin at 8 AM instead of 9 AM.

Components: Students recommended modeling clinics after the first session. Students would like more text references. Anatomy should be utilized in every module like MSS. Small group meetings would be more effective if not given the day before an exam.

Examinations: More feedback on exams was requested. Students asked for more questions in Step 1 format and actually this was the case. Tests need to be reviewed for spelling, grammar and omissions before being given to students.

Overall: Reduce activities and planned opportunities limiting course to lectures, anatomy lab, case presentation with live patients and clinics.

Report of Musculoskeletal/Skin Review Committee Meeting : 5/26/10, 302 Volker Tower

All six of the self-study areas were reviewed in order. Neither of the student representatives were present for the review of the Module.

The Module Course Directors and MSS Module Review Committee recommended that attendance for lectures should not be required and that there no points given for being present.

Module Objectives and Content

The module addresses all 6 main School of Medicine Objectives and all ACGME Competencies.

Under the Step 1 content area “Skin and Related Connective Tissue,” the module covers all items under “Normal Processes” except “4.1.4 repair, regeneration, and changes associated with stage of life or ethnicity (eg senile purpura, male pattern baldness, postmenopausal hair changes);” all items under “Abnormal processes” except “4.2.2 traumatic and mechanical disorders (eg thermal injury, decubitus ulcers) and all items under “Principles of therapeutics;” and one of four items under “Gender, ethnic, and behavioral considerations affecting disease treatment and prevention.” Under Step 1 content area “Musculoskeletal System,” the module covers all items under “Normal Processes;” all items under “Abnormal Processes” except “5.2.1.2 Inflammatory Disorders)eg fibrositis and “5.2.5 Vascular Disorders (eg bone infarcts); all items under “Principles of Therapeutics” except and none of the items under “Gender, ethnic and behavioral considerations affecting disease treatment and prevention.” In addition, the module covers items under the areas “General Principles” and “Central and Peripheral Nervous Systems” and a module director-specific item “mechanisms of muscle protein synthesis and degradation in trauma and disease.”

All five SOM Themes are covered by at least one specific content within the Theme. All of the Theme-related material was developed and presented by the co-directors or module faculty.

Methods of Instruction and Assessment

All SOM objectives were covered by lecture and clinic. In addition, four are covered by case conference and one by lab.

In 2009-2010, 65.3% of student hours were spent in lecture, compared to 77.2% in 2007-2008.

The number of contact hours per week, including ICM II, exceeded 20 hours in two of the five weeks in 2009-2010, and all four weeks in 2007-2008.

The Knowledge Performance and Participation components of the module raw score are weighed 90% and 10%, respectively. Multiple choice exams and quizzes account for 78% of the Knowledge component and 70% of the module raw score. All exams except the 2009 Exam 1 (.68) have reliability coefficients in the moderate (.70-.89) range. Test items address the Step 1 content areas covered in module activities. Subjective grading was used for the ICM take-home project and the team reports for the clinical experiences.

Case conferences and clinical experiences were small group activities. Students were evaluated using open-book quizzes for case conferences and team take-home reports for clinical experiences. Attendance was required for all small group activities.

Student Outcomes

Students were required to attend 80% of the lectures to receive full credit (2% of module raw score). 88.6% of students attended at least 80% of the lectures. The mean module raw score was 85.8 for 2009-2010 and 88.5 for 2007-2008. The 2009-2010 mean is the second lowest of all modules and the 2007-2008 mean is at the mean of all modules. No student failed the module based on the knowledge component in either year. The Knowledge component mean was 84.7, and the Participation mean was 95.8 in 2009-2010, compared to 86.7 and 96.9 in 2007-2008. Means for exams ranged from 78.3 (Joints) to 92.2 (Dermatology) in 2009-2010 and from 76.8 (Anatomy) 91.3 (Final) in 2007-2008.

Student Evaluation of Module

The overall quality of the MS/Skin Module is rated as Outstanding or Good by 43% of students in 2009-2010 compared to 9% in 2007-2008. And the mean rating improved from 2.0 in 2007-2008 to 3.3 in 2009-2010.

The overall quality of faculty is rated as Excellent or Satisfactory by 89% of students in 2009-2010 compared to 45% in 2007-2008.

The percentage of students rating "Understanding concepts" as the most emphasized learning outcome increased from 13% in 2007-2008 to 41% in 2009-2010. The percentage rating "Ability to apply facts/concepts to clinical issues" as the most emphasized learning outcome decreased from 31% in 2007-2008 to 13% in 2009-2010. The percentage rating "Recall of facts/definitions" as most emphasized decreased from 55% in 2007-2008 to 35% in 2009-2010.

For 2009-2010, mean ratings are below 3.0 and percentages agreeing or strongly agreeing are below 50% for only a few areas. Feedback had a mean rating of 2.9 and percentage of 33%. Projects had a mean rating of 2.1 and percentage of 11% but "projects" may not be clearly defined. Other independent learning assignments had a mean rating of 2.9 and percentage of 20% although 11% marked "Not applicable" and 50% marked "Neutral." ARS Items fall below 3.0 and 50% except "ARS was easy to use." For 2007, the results are similar, but with "Exams" also falling below 3.0 (2.6) and 50% (27%).

Evaluation of Lecturers and Preceptors

The overall rating of the quality of the faculty was 23% excellent and 66% satisfactory. The module director was effective in organizing the module activities and materials received a mean of 3.0 and percentage of 40%. Responding to students' concerns received a 3.4 and percentage of 55%. The module faculty facilitated learning received a 3.2 and percentage of 42%. Feedback was provided to students that enabled students to learn from their mistakes received a mean of 3.2 and percentage of 29%. Means less than 3.0 or less than 50% agreement are considered in need of improvement.

The mean lecturer ratings for MSS were about the same as the combined means for the other organ-based modules in 2009-2010 and 2007-2008. Using the average of the lecturer ratings as an overall measure, the mean scores for lecturers in 2009-2010 range from 2.6 to 4.1 on a scale where 2=occasionally fails to meet expectations to 5=far exceeds expectations. Only two lecturers fell below an overall rating of 3.0 and only one had >50% raters giving at least one rating less than 3. In 2007-2008, five fell below 3.0 and one had 50% or more with at least one rating less than 3.

The mean preceptor ratings tended to be lower than the combined means for other organ-based modules in 2009-2010 and higher in 2007-2008. In 2009-2010, none of the means were above 7.0 where 7-9=excellent and in 2007-2008 all of the means were above 7.0. The Overall Teaching Effectiveness means for MS/Skin are 6.6 and 7.3 for 2009-2010 and 2007-2008, respectively, compared to other organ-based modules combined. Based on the Overall Teaching Effectiveness item, the preceptor means in 2009-2010 range from 5.3 to 8.0 on a scale where 4-6=Satisfactory and 7-9=Excellent. No preceptor fell below a mean of 4.0 and no preceptor had >50% of raters giving at least one rating less than 4. In 2007, the means ranged from 5.5 to 8.5 with no one below a mean of 4.0 and no preceptor has >50% of raters giving at least one rating less than 4.

Impact of Changes from Last Year

Five items had a positive impact: The module duration was increased by 1.5 weeks which reduced the number of contact hours per day. The number of exams was increased with lesser content per exam. The number of Team Take-Home Projects were reduced from 3 to 1. Lecturers for bone disease and musculoskeletal imaging were reduced.

The increased usage of ARS had no major impact but had better attendance during later weeks.

