

Module Review

Hematology / Oncology

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Clinical Co-director: Kimberly Whelan, MD

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Review Date: September 2nd, 2009

Present:	Ivan Maya	Review Committee Chair;
		Member, Preclinical Sub-committee
	Robin Lester	Member, MEC
	Vishnu Reddy	Course Director
	Anjali Kumbha	Student Course Representative
	Lauren Davidson	Student Course Representative
	James Jackson	UME

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 approximately 5 weeks 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:

Hematology / Oncology was a successful module. The module directors and the faculty (29 teachers from various departments 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 hematology and oncology medicine.

Strengths:

The two directors were seen as a major contributing factor to the success of this module.

The overall module organization was excellent.

The module had strong faculty from various departments of the SOM.

Good report on small groups, online web presentations and large group discussions.

Weaknesses:

There was no course introduction / overview. They could use more “basic” concepts up front.

The evidence-based medicine sessions were viewed *very* negatively (needs to be rethought).

Labs in general were considered not so helpful.

Need more board style questions (although exams were considered fair).

There is a need for smaller group sessions (too many students per session) – How many students were there on average per session?

ARS was not helpful (may want to have a clinical vignette NBME type question in each hour).

There is a need for more ethics lectures.

Recommendations for Improvement:

Begin to develop a practice question bank specific for this module.

Consider increasing representation of physiology and integrate some lectures; e.g. more biochemistry with function of vitamins and clinical effects of vitamin deficiencies.

Move towards reducing student contact hours in lecture to approach benchmark of less than 50% lecture time per module.

Re-evaluate role of projects in this course and consider adjusting their implementation and/or requirements.

Recommendation:

Hematology / Oncology is a strong module that more than adequately fulfills the requirements, objectives and content as recommended by the UASOM. It is recommended that this module be subject to full review in three years time and expedited review in the intervening period.

Report of Fundamentals I Review Committee Meeting, March 3rd 2009

All six of the self-study areas were reviewed in order.

Module Objectives and Content

Although the module objectives address all six main UASOM objectives and also the ACGME competencies, there were some partial objectives that were not addressed, i.e. lack of more evidence based medicine. Overall, the objectives of the module were fulfilled.

In content, the module covered the vast majority of subjects listed under "General Principles": the module covered items in the areas of "gene expression: DNA structure, replication and exchange", "Cancer epidemiology and prevention", and "immune responses". Under "Hematopoietic and Lymphoreticular Systems", the module covered items in the areas of "Normal processes", "Abnormal processes", "Principles of therapeutics", and "Gender, ethnic and behavioral considerations affecting treatment and prevention". Under "Central and Peripheral Nervous Systems", the module covered "embryonic development, fetal maturation and perinatal changes". All five SOM themes were covered by at least one specific content area within them.

Overall, the Hematology / Oncology module did a good job of addressing content as they relate to the basic sciences; no significant redundancies or omissions were noted at this stage.

Methods of Instruction and Assessment

All of the materials relating to SOM objectives that relate to Hematology / Oncology were covered by lecture, small group, labs, large group, online/web cases or a combination of these activities. The largest number of hours were dedicated to objectives 3 (understand pathophysiologic bases of hematologic disorders) and 4 (Create differential diagnosis and plan intervention/treatment strategies). 62.5% of this material was covered by lecture, which is above the 2010 benchmark of 50% lecture. The number of contact hours per week, including ICM I, did not exceed the benchmark of 20 hours per week.

The Knowledge Performance and Individual/Group Performance components of the module raw score were weighted 80% and 20%, respectively. Multiple-choice exams accounted for 100% of the Knowledge component. Both exams (midterm and final) have reliability coefficients in the moderate range (.70 - .89). For the Step 1 content areas under Hematopoietic and Lymphoreticular Systems, the midterm and final exams covered all but one area under "Normal processes" ("repair, regeneration, and changes associated with stage of life"); all but one area under "Abnormal processes" ("acquired disorders of immune deficiency"); all but one area under "Principles of therapeutics" ("antimicrobials"); and all areas under "Gender, ethnic and behavioral considerations". Basic exam analysis for Heme/Onc shows that MCQs accounted for 65% of the total knowledge component. Exam reliability was 0.72 and 0.73 for the midterm and final, respectively. The percentage of questions in NBME format was 18% in the midterm and 26% in the final; however many questions could be converted into NBME-type questions with relatively little effort. The benchmark is to obtain 70% of questions in the NBME format by 2010.

The preceptors had less than 4 hours of contact with the same students; therefore the Professional form could not be used. Instead, the preceptors used a form developed by the module director in which the guidelines were: 0 = no attendance; 3 = attendance, but no participation; 4 = reasonable participation; and 5 = exceptionally good participation. Students who presented a section to the group or those who interacted a great deal with thoughtful comments received full credit (5) for the activity. For the Blood Bank Case Studies small group, all students received a rating of 5. For the EBM Journal Article Review small group, one preceptor assigned ratings of 3-5, and all other preceptors assigned ratings of 4-5. The mean ratings by preceptor range from 4.0 to 4.8.

Other assessments included laboratory practicals, student group presentations and an evidence-based medicine assignment, all of which seem to be appropriate.

Student Outcomes

Students were required to attend 70% of lectures to receive full credit (5 points). 78.4% of students attended at least 70% of the 38 lectures. In calculating the percentage used for assigning credit, all students were given credit for 4 additional lectures and the percentage was based on 42 lectures. This raised the overall mean to 80.9%.

Module raw score was 91.4, which higher than all but three other modules in the class of 2011. The knowledge component mean row score was 90, and the participation mean was 94.7. No students failed the module.

Step 1 subject breakdowns are not available yet, so information to correlate these outcomes with the national means was not available.

Student Evaluation of Module

The student evaluations of Hematology / Oncology were comparable to those of the other modules.

The Hematology / Oncology mean (4.0) is only slightly lower than the overall mean (4.1) and 76% agree or strongly agree that the module director was effective in responding to student concerns. The students were not allowed to review their exams as they had been in previous modules, which resulted in a lower rating on the effectiveness of feedback. The students were given feedback on the midterm but not the final. The Hematology / Oncology mean for text and materials (3.5) is only slightly lower than the overall mean (3.6), and there were no negative comments about this item. The small group sessions mean (3.3) is lower than the overall mean (3.6), and about half of the students (52%) agree or strongly agree that small groups facilitated their understanding. Two-thirds or more agree or strongly agree that their team worked efficiently (72%) and their preceptor facilitated efficiently (66%). The labs mean (3.3) is only slightly lower than the overall mean (3.4), and about half of the students (49%) agree or strongly agree that labs groups facilitated their understanding. ARS items means and percentages are close to those for all modules.

The module had a lower percentage rating "Understanding concepts" as the most emphasized learning outcome (18%), compared to all modules combined (34%). It had a higher percentage for "Ability to apply facts/concepts to clinical issues" than all modules combined (30% vs. 29%) and a higher percentage for "Recall of facts/definitions" (55%

vs. 40%).

The overall quality of faculty was rated as Excellent or Satisfactory by 91% of students, compared to 86% for all modules combined. The overall quality of the module was rated as outstanding or good by 62% of students, compared to 59% for all modules combined. For the module specific items (4.1c), at least 75% of students indicated the emphasis was about right for all module components, except for Functional Histology and Overview of Immune System (67%) and Surgical Considerations (69%). For these two areas 27% think there is too much emphasis on Surgical Considerations and 24% think there is too little emphasis on Functional Histology. At least 73% of students think that all the listed components were moderately or very helpful except EBM Small Group (39%) and Lab #2 (68%).

Based on the Nominal Group Technique (NGT) results for two student groups, students think most strongly that learning could be improved by providing general overview lectures first followed by detail; adding a course introduction session, followed by all hematology lectures and a test, then all oncology lectures and a test; revising the EBM small group. The two groups agree that the take-home exam was most helpful for their learning. Other helpful items relate to NBME-style test items and manageable lecture hour schedule

Evaluation of Lecturers and Preceptors

The mean lecturer ratings for Hematology-Oncology are only slightly lower than the means for all other organ modules combined. Using the average of the lecturer ratings as an overall measure, the mean scores for lecturers range from 2.5 to 3.6 on a scale where 2=occasionally fails to meet expectations, 3=Meets expectations and 4=Exceeds expectations. Only three lecturers fall below an overall mean rating of 3.0, and only one has > 50% of their ratings less than 3 (Table 5.1b).

The mean preceptor ratings are lower than the means for all other organ modules combined, but all means approached 7.0 on a scale where 7-9=Excellent. Based on the Overall Teaching Effectiveness item, the preceptor means range from 5.5 to 7.3 on a scale where 4-6=Satisfactory and 7-9=Excellent. No small group preceptor fell below a mean of 4 (satisfactory) and no one had more than 50% of ratings at less than 4.

Impact of Changes from Last Year

N/A