University of Florida College of Medicine
Program Evaluation Committee
January 22, 2021

Attendees

Dr. John Aris, Dr. Lou Ann Cooper, Dr. Frank Genuardi, Dr. Grant Harrell, Dr. Heather Harrell, Govind Kallumkal, Dr. Lynne Meyer, Dr. Matthew Ryan, Dr. Peter Sayeski, Dr. Carolyn Stalvey, Dr. Ashley Wright

Recorded by: Wendi Miller, Course Manager

Reviewing Dr. Harrell's Charge to the Task Force

The charge is fairly narrow. It would be hard to look at the practical exams without looking at the anatomy content. Question 1, what aspects of the curriculum or practical exams assessing that is necessary for clinical practice and cannot be assessed by other means, could not be answered. Dr. Wright said she believes to answer question 1, the committee would need the representation of different physicians. Dr. Cooper said that this was tried in the past.

Dr. Wright said that we did discuss question 2, how might changes to (or elimination of) practical exams effect Step 1 and clerkship preparation, and the students said that the practical exams were not helpful to Step 1. Dr. Cooper said the student observation tracks with the literature.

Dr. Wright said that we discussed the most was questions 3, if the practical exams are meeting a key need, how might the ICM/anatomy practical exams be modified to mitigate the large number of failures and possible disproportionate assessment in ICM. She said there is a significant discrepancy between the students' performance on Step 1 anatomy and the large number of students that are failing the practical exams. Considering the mission statement of ICM as a course and given the large amount of time spent on testing and teaching anatomy, is it consistent with ICM's intention?

Two out of eight learning objectives for ICM 3 that are related to anatomy, which is similar to ICM 1 and 2.

Dr. Cooper showed a slide that she presented at the taskforce meeting. Over 70% of the ICM exam is based on the students' knowledge of anatomy. On the next slide Dr. Cooper shows that in ICM 3 there is almost a 50% failure rate for exam 4 and over 30% of the class failing the practical exam 2. The grading of the ICM exams is compensatory in that the multiple choice part is weighted more heavily than the anatomy practical.

Dr. Genuardi asked if this year was worse than last year due to covid since students were not able to spend as much time in the anatomy labs. Dr. Wright said that she has not noticed that it is not significantly worse at all. Dr. Cooper doesn't think it's been any worse this year than it has been in other years. This year, head and neck anatomy was being taught in first year instead of second year to correspond better with neuroscience.

Dr. Fantone wrote in the chat that item 3 needs separate standard setting for practical. He suggested 65% would be passing.

Dr. Cooper's next slide shows the practical exam reliability calculations. She said these are the most reliable exams in the entire phase 1 curriculum. She notes that certain items that a lot of people got wrong.

There was a lot of student representation on the taskforce committee. Misty Audate is an anatomy junkie. She told Dr. Cooper that there is a lot of extra time, attendance at bootcamps, a lot of independent study to prepare for the anatomy exams. She spends up to 8 hours a week studying for exams. Dr. Grant Harrell said that, while his biased opinion, if students are spending 10 hours a week in order to get some obscure parts of the head and neck to get an A, he believes it is an unwise use of time. He goes on to say that if our students are outstanding at identifying structures that are commonly seen in clinical practice as having issues and pathology associated with them and understanding their relevance, student's should be focused on what they are doing poorly on.

Govind said that the students on the taskforce wasn't a good representation of the students in the course. He said that the majority of people in the course. Many of the students on the taskforce were very, very good at anatomy. He personally didn't study 8 hours a week for a test but he wasn't an A student.

Govind has heard that having to learn a significant number of obscure structures has decreased people's time/ability to learn things that they might see more in clinical practice.

Dr. Cooper said that this is the main issue: do we have too much anatomy instruction. The class of 2022, in terms of exam failures in anatomy, if we think of it as a thread, we have 25 people who would fail the thread. One of her proposals is to take these people and look at their Step 1 scores. If they're scores are not impacted then perhaps we are worrying a lot about nothing.

Dr. Sayeski said he believes that the anatomy scores correlate with step 1, at least since we switched to the new curriculum. He mentions a graph that Dr. Cooper showed previously that has Step 1 broken down by discipline. Our students are overproducing, better than the national average, and yet everything else, respiratory, CV, renal, we are on the mean of the national average. Our students are spending more time doing anatomy than other medical schools. Does this make them better doctors?

He also said that students will focus on the systems courses on the block exams days, ICM practical exams are put off. He said that it's a cost benefit analysis, there's a lot of cost that goes in but the benefit is not quite as high yield as other areas. Dr. Cooper said that students said their anatomy training was important during their 3rd year clerkships. Govind said that this applied to basically any specialty and not just surgery. He said that during Pediatrics and Pathology, he was asked about various parts of the anatomy and how they were related to the pathology that they were seeing.

Dr. Wright said that most students do not study any significant amount of time for the remainder of ICM content until just prior to the exam. She believes that participation and watching lectures is enough for that. She doesn't think studying 8 hours a week, one hour a day and/or 3 hours on the weekend, is that much to her.

Dr. Cooper said that the failures ramp up at the end of ICM 3/beginning of ICM 4 when the students ramp up their Step 1 studying and starting to use a lot of external resources. She is not sure how this will work out in the future when Step goes pass/fail.

Dr. Wright said she would like to see how the students who are failing ICM are faring on Step 1 and the clerkship rotations.

Dr. Fantone asked in the chat if we have reviewed the "relevance" of practical exam content vs. written content.

Dr. Heather Harrell said that there are two potential problems, one is the real problem and the real problem is related to assessment and that the proportion of ICM assessment dedicated to anatomy is completely misaligned with what the learning outcomes of those ICM course are. The second potential problem, is the student success rate at Step 1 coming at the cost of other content particularly as we're starting to talk more and more about the types of content that comes in the health system science related to disparities and equities, more about our own practice improvement, are we sacrificing that, and so on balance, that's really where the problem is. She's not sure about the answer to that question but is truly troubled that our current structure with anatomy and ICM has got the assessment out of whack for that particular course.

Dr. Cooper asked if this is an issue of disproportionate assessment or isn't an issue of overemphasis on anatomy content. Dr. Harrell said that as the curriculum dean look at the learning outcomes of that course and the content but then find out that the exam is 75% anatomy, that's just a problem.

Dr. Wright said that after getting someone new, Dr. Martina Murphy, involved. She saw what she had to do given the amount of anatomy that Dr. Rarey felt was appropriate and the amount of class time, Dr. Murphy said she was literally teaching an anatomy class for several weeks. Given the amount of content deemed to be minimal, in order to get that

in, sometimes ICM becomes an anatomy class. That in large part drives assessment, by making it two thirds of other topics that we also feel are very important, which would be their relative representation in the objectives of the course.

Dr. Harrell brings up Dr. Fantone's comment in the chat. What is the value added of a practical exam? It's not that a practical exam does not have some value but when you are already getting tested on this material through MCQs as part of the regular exam that's the way you're being tested for Step 1, is there that much added value to practical exams? Practical exams are significant to put together, and then with the high number of failures you have to create a make up plan. Those exams aren't necessarily comparable to the original exam.

Dr. Sayeski said that for the ICM courses, perhaps anatomy needs to be reduced, more of the health system sciences come in. Once the dust settles on that then look at the assessment and the best way to assess whatever anatomy is left.

Dr. Robinson said that what he heard from the taskforce meeting is that perhaps there isn't enough time for ICM because of anatomy. He said it sounded like she was teaching an anatomy course. Dr. Robinson said that he is responsible for both anatomy and the curriculum, and he is going to combine everything into one test. He asks if ICM and anatomy need to go together. Accomplishing two big goals doesn't seem feasible.

Dr. Cooper said that one idea was to make anatomy part of the organ systems as opposed to ICM. She said that there is always discussion about different ways of assessment that aren't MCQs and this is the one area where students have to produce the answer. Is there some value to that?

Dr. Genuardi asked about unintended consequences. He wasn't aware that head and neck anatomy moved to first year. He believes that the OMFS students need head and neck anatomy since that is their profession. They come in during 2nd year. If head and neck move to first year they aren't going to get it. Dr. Wright said that she believed that the students loop back to spring semester of the first year and there are several core modules taught during that time. Dr. Cooper suggested it be moved to ICM 4 and be taught with neurology.

Dr. Grant Harrell asked if we need a group of faculty to look at the assessed content of the anatomy exams and practical to come up with some consensus as to whether the material is too detailed versus appropriate for what's expected of a graduating medical students.

Dr. Cooper would like a focus group at the end of this year, third year students, what was the role of anatomy in their clerkships, how valuable did they think it was. Dr. Harrell said he isn't sure this is helpful to do we have too much content.

Dr. Sayeski said that if we move anatomy out of ICM 2 and put it in respiratory and renal, the content hours are going to have to change He typically has 15 hours of content per week and that would have to go up. He thinks the number of credit hours per course would need to change. ICM credit hours would have to drop.

Dr. Cooper said that Dr. Rarey is versed in learning theory and coaching student up in terms of anatomy. He included cumulative content in each of the exams. 12 to 15 questions come from content from the previously learned content. She would like to identify if those are the questions students are missing.

Dr. Heather Harrell said that what she is hearing is that the question of the role of practical exams itself seems like a premature question that this other anatomy discussion about correct learning outcomes, the level of detail for those and the amount of content is a discussion that needs to happen first.

Dr. Cooper asked who the stakeholders are that could answer the question of the curriculum.

Dr. Aris said that there was a concern about creating a requirement to pass an exam that then impacts students' ability to make judgment calls about how they use their time, and letting them have the flexibility to do their own cost benefit analysis. He worries that if exams are difficult and going to require all students pass to a greater extent than they're currently passing, to what extent do we deprive the student of making those kind of judgment calls on how they spend their time.

Dr. Harrell said she also has the question about who will answer the value question about practical exams. She wonders if the next step could be having the anatomy objectives for the different systems vetted by a clinical faculty in that sub-specialty, at the same time asking if the assessment of identify this thing on an actual cadaver or a picture or a radiograph, is that adding value from their perspective to what they're going to see in the clinic or in the OR. Do they have other suggestions or what parts of this do they think would best be assesses that way.

Dr. Cooper asked if it's a question of having to produce the response, do we value that?

Dr. Robinson said that what he heard from Dr. Rarey and the students is that CT Scans could be put on the written exams. Dr. Robinson said he wasn't sure if he had to write in an answer for a labeled thing, but he could write in a 3rd item asked knowing that A goes to B goes to C. Dr. Aris said he had histology exams that were to test recall and multiple choice was just fine.

Dr. Grant Harrell said that having a practical where a student has to visually identify a real world structure is helpful in the context if they are trying to visually identify a real world structure in the OR. He thinks it is a better to do that in a practical versus a picture. He doesn't care about improving the learning and brain development of our students by exposing the different kinds of assessment. Once you open the abdomen it's different than looking at a prosection of the abdomen. If we are simulating in a practical setting what is likely to be encountered in a clinical setting, like an OR, then it's good preparation. But if it is just identifying a structure in another way that you can identify in a picture because it's not really that good of a correlate to real life anyways, then who cares if it in a practical or by picture. He believes that a surgeon could answer that question best, or a radiologist, in terms of how well does the various types of assessment relate to one's ability to recognize a structure on a CT scan or an MRI.

Dr. Wright agreed with Dr. Harrell but added that she doesn't disagree with the concept of getting in the body and feeling the body and looking at different structures from different perspectives and learning about orientation which really can't be done in photographs. However, how much of that needs to be done through a testing modality versus how much of that can just be experiential for the students she doesn't know.

Dr. Heather Harrell said that while she loved anatomy and histology when she was a medical student she doesn't think she retained the key things she needed to because she was lost in the weeds of the excitement of knowing every little thing. Educationally we need to make sure that we're not undermining what the students need to learn in both student and faculty enthusiasm of teaching content that at this level of learner an undifferentiated learned may cause them to miss the big picture.

Dr. Cooper said is it our mission to teach the generalist physician. For some students we may or may not be doing them a service and she doesn't know how to meet the needs of our students.

Dr. Ryan said that he doesn't want the students to graduate, get a CBC differential and not be able to recognize what it is. He wants there to be a toolbelt where they understand what certain things mean with different types of lung cancers and when to be concerned and when to get an inpatient consult or when a patient can be seen as an outpatient.

Dr. Cooper asked Dr. Heather Harrell if we are finished with the taskforce or do we want to move on to something different and more in depth. Dr. Harrell said that we should put the taskforce on hold for now and the practical question covered more than one course but if Dr. Robinson is moving away from a practical to an all written exam and Dr. Aris is not doing a separate histology practical then our focus really does seem to be all centering on anatomy. She said that she would need to meet with Dr. Wright and Dr. Rarey to discuss what a reasonable process is. She goes back to our learning outcomes compared to any national benchmarks of the types of learning outcomes and get those vetted by content experts from the clinical round since we're training MDs and not PhDs. She thinks this will help figuring out the right size and give some information about assessment. She doesn't think this is the responsibility of this committee.

Dr. Cooper said that the clinical content experts would not be to look at an answer sheet so would it be helpful to observe and go around the stations at a practical or not. Dr. Robinson and Dr. Sayeski think that is a good idea. Dr.

Sayeski said that they should at least see what's being assessed and how it's being assessed. They don't have to be in the lab at the time of the exam but however Dr. Rarey sets it up is important.

Dr. Robinson said he has his residents take the neuroscience practical before the students do and change his questions based on how poorly do. Since they practice medicine on people's brains, if nobody can answer that question and can take care of patients, then perhaps the question is ridiculous. He wonders how the ENT doctors would do on the head and neck practical. Dr. Sayeski said that it would be interesting to see how the doctors score. Dr. Robinson said that neuroscience is what he loves but is he putting out too much, he has learned how to pull back. He gets the feeling that Dr. Rarey has a similar passion and perhaps he just needs to pull back.

Dr. Genuardi said that we need broad representation in the different specialties that look at this. Dr. Sayeski said the student representation needs to be diverse. In the Step 1 debriefing in June, asking the students what they thought of anatomy. The students said they all hated anatomy up to Step 1, too stress inducing but while taking Step 1 they realized it was absolutely important for them. They thought it helped their Step 1 score.

Dr. Cooper said that those students were the best of the class. She isn't sure how to engender more support from the average student. Dr. Robinson suggested that we ask the students why did they fail. Dr. Cooper said that the students who are not doing well will not volunteer but she would need to invite them personally.

Dr. Wright said she wanted to blame the students for not taking advantage of the resources we have. But she thought about it she wondered why they are not taking advantage of the resources. She thinks some of them have given up because they have repeated failures so why spend time trying to learn the materials.

Dr. Cooper said that some of the students have said that they haven't passed the bootcamps but are still passing the combined exams in ICM, she's not worried about those students. She's worried about the continual one and a half to two or three standard deviations below the average on all the practical exams, if we should consider this a thread, should we be passing the students.

Dr. Aris said he disagreed with Dr. Wright that the disheartening factor needs to be considered. It's not great that the thread causes a significant number of students may feel disheartened by the experience.

Dr. Ryan said that we may be failing some students, sometimes a student can only be as good as his professor allowed him to be. Students needs the encouragement, what can the faculty do to help them understand better. Average students in the College of Medicine are above average in terms of intellectual ability and capacity to learn.

Dr. Heather Harrell wrote in the chat that a deeper dive into fourth year would be a good idea. Dr. Ryan suggests that the EDs (PDs, CDs?) come up with a list of the top 5 things that are super important for a specialist going into the intern year. He doesn't think we've done that before.

Dr. Cooper asked if we could do this during Internship 101 but Dr. Ryan said that he thinks that's too late. He thinks it needs to start in July before Internship 101. Ask the CDs what they want their students to know when they finish this rotation. He said he would want the students to know sick versus not sick when you run into a crisis, where do you start. He said you could panic for a second but then you have to get moving and start doing something. The students don't need to know how to do a paracentesis, those things are more advanced. He thinks this is a short list for most people.

Dr. Cooper ended the meeting.