

Critical Clinical Competency (CCC) Curriculum

Executive summary

There is no doubt that there is a gathering storm in health care, and we are in a time of massive change. Yet the basic format of medical education used in this country is 100 years old, generally stuck in a Flexnerian, four year, two by two setting. Despite the time and cost invested, some of our best medical providers find that new doctors still are not ready to work. To that end our project addresses two main problems in this current state of affairs, 1) the need for improvements in clinical decision-making/critical thinking, and 2) the need to create more flexible, individualized learning plans.

- 1) PROJECT GOAL #1: Students will graduate with a consistent set of critical thinking and clinical decision making skills. More explicitly, students will have, upon graduation, the ability to diagnose and provide the initial management of 12 defined critical clinical competencies (CCC).
- 2) PROJECT GOAL #2: Starting in the third year, significant individualization and flexibility in students' schedules, including those in need of intensive remediation, those wishing to explore and/or acquire advanced skills in areas of their choosing, and for a small number of gifted students, graduation by the end of the third year of medical school.

How will we do this?

#1: A new longitudinal, spiral, deliberate practice model using coaching and the explicit comparison of diagnostic possibilities is needed. The CCC cases and their associated diagnoses will be staged, so that less complicated cases with straightforward diagnostic reasoning will be given to students in their first year, with increasingly complicated cases beginning to appear in year 2, and culminating in the most complicated cases in year 3. The centerpiece of this work will hinge on the use of online, interactive, computer-based videos using an in-house designed program. Assessment will occur via a series of year-end, uncued, comprehensive standardized patient exams (at the end of years 1-3) which will serve as summative evaluations of developing clinical reasoning skills. Further assessments of clinical reasoning skills, including a longitudinal performance examination and diagnostic justification exercises, will occur as well. Beginning in the second year of the CCCs, and continuing through the third, activities built into the online program will give students opportunities to learn about shared decision making, interdisciplinary communication, and teamwork with other health care professionals as well.

#2. Students entering their third year will find the first half to be an immersive 'Explore' experience approximately 32 weeks in length. The focus on this shortened period of clinical clerkships will not be diagnostic reasoning; data suggest that clinical reasoning does not increase greatly during the current third year structure, and the standardization of the CCC curriculum as previously discussed allows for this freedom to occur. These immersion experiences will focus on students being involved in real clinical settings in meaningful ways as active team members. The focus will be to help students find specialties that fit their particular likes and personalities, and to increasingly socialize them into the culture of medicine. All students will rotate through the following four-week clerkships: Family and Community Medicine, Neurology, Surgery, Obstetrics/Gynecology, Pediatrics, Internal Medicine, Emergency Medicine and Psychiatry. Because the 'Explore' experience is meant to be entirely immersive, all traditional clerkship activities taking students away from clinical work will be removed. Students will be assigned a mentor/advisor at the beginning of the third year, who will remain with them throughout the entire third year experience. (The advisor may alternatively be switched to a faculty in the specialty the student ultimately chooses, at the student's request, during this time.)

Once the student has decided upon his/her specialty the second section of the third year will be targeted to the individual student's needs. Again, since all students will have received a standardized (CCC) curriculum and will have been tested for competency on same, faculty can have confidence as to student ability in these areas, opening up significant opportunities for variable and individualized experiences to exist. Does the student want to 'try out' particular specialties in medicine? The students' third year advisors and medical education specialists will work with the students to assist in defining each individual student's second half of the third year. Other activities available in this individualized third year include the ability to learn about important areas of medicine in both an interprofessional and contextualized setting. For example, the process of transition of care is extremely important, but grossly underrepresented in medical school curricula. Additional opportunities which afford themselves by the individualized and flexible third year include intensive remediation activities for those that need them, extended periods in longitudinal investigation of subspecialties, placement in a longitudinal, chronic care outpatient treatment clinic, exploration of team leadership, and for a few highly performing students, graduation at the end of the third year.

Expected outcomes

- 1) All graduates of our program will be able to handle all 12 CCCs and their related diagnoses (144) by the time of graduation from SIUSOM.
- 2) Graduates of our program will out-perform their colleagues from other medical schools on the 12 CCCs and their related diagnoses.
- 3) A third year medical school experience allowing for more individualized attention to a student's specific career aspirations and educational needs.
- 4) A small group of graduates (~15%) will be able to reduce their time in medical school to three years instead of four.
- 5) An increased ability for our graduates to work seamlessly within an interprofessional health care team.
- 6) If successful, the dissemination of this curricular innovation beyond SIUSOM to other medical schools in the country.