

November Curriculum Reform Newsletter

November, 2020

Clinical Reasoning in the Plains Year of the Trek Curriculum

Love to think, talk, or teach about clinical reasoning? Please read on! The CUSOM is planning to develop new educational materials, teaching methods, and assessment tools to explicitly introduce clinical reasoning concepts in the TREK curriculum. Developing cohesion of goals, learning objectives, and assessments related to clinical reasoning across the Plains, Foothills, and Alpine Ascent phases of the curriculum will be important and exciting educational work to be done! If you are interested in helping develop new educational materials in the Plains or collaborating on existing or anticipated teaching activities and assessments across the TREK curriculum, please reach out to todd.guth@CUAnschutz.edu.

Clinical reasoning has been defined in a general sense as “the thinking and decision-making processes associated with clinical practice” or even more simply “diagnostic problem solving” (Higgs and Jones, 2000 and Elstein, 1995). Clinical reasoning means different things to different individuals, but for the purposes of the TREK curriculum, we settled on a definition of clinical reasoning as the ability of students “to sort through a cluster of features presented by a patient and accurately assign a diagnostic label, with the development of an appropriate treatment strategy being the end goal” (Eva, 2005). Clinical reasoning conceptualized in this way can be deconstructed into seven discreet domains that allow for alignment of teaching materials and assessment tools in the new TREK curriculum.

Domains of Teaching and Assessing Clinical Reasoning



- Information Gathering
- Hypotheses Generation
- Problem Representation
- Differential Diagnosis
- Leading or Working Diagnosis
- Diagnostic Justification
- Management and Treatment

In the Plains, early clinical reasoning sessions will focus on introducing the vocabulary and fundamental concepts. Diagnostic schemas (flowcharts of diagnostic possibilities centered around a chief concern) of common conditions framed around prototypical clinical cases discussed in basic medical science coursework will help link basic science knowledge to the clinical reasoning, communication, and physical examination skills taught in the clinical skills course. Early case-based clinical reasoning sessions will highlight aspects of information gathering from the history and physical examination as well as aspects

of hypothesis generation and problem representation. Consistent practice with oral presentations and medical documentation will be one way that the development of a differential diagnosis, a leading diagnosis, diagnostic justifications, and management and treatment plans will be taught in the clinical reasoning sessions.

Students will be assessed using a combination of workplace-based assessments in their preceptorship, non-workplace-based assessments, and objective structured clinical examinations (OSCE) during the Plains year. The assessment data will be organized around the seven domains of clinical reasoning and sample broadly across a variety of clinical content areas. Ideally, this student clinical reasoning performance data in the Plains can be linked to other data across clinical experiences in the Foothills and Alpine Ascent to provide a programmatic understanding of clinical reasoning performance in the TREK curriculum. Again, if you are interested in helping develop new educational materials in the Plains or collaborating on existing or anticipated teaching activities and assessments across the TREK curriculum, please reach out to todd.guth@CUAnschutz.edu.