

Curricular Innovation

'Compare and Contrast: An Online Self-directed Module to Support Clinical Reasoning in the Clinical Years'

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Problem: The Liaison Committee on Medical Education has highlighted the importance of clinical reasoning in medical education, as one of the Core Entrustable Professional Activities focuses on generating and prioritizing a differential diagnosis. Comparing and contrasting diseases can help novice learners develop more robust illness scripts, identify key features of diseases, and better prioritize a differential diagnosis. Currently, there is no such curriculum that targets this element of clinical reasoning at Wake Forest School of Medicine.

Program Objectives:

- Demonstrate the ability to compare and contrast diseases with similar presentations.
- Develop a prioritized differential diagnosis for a given clinical scenario.
- Compare and contrast the patient's clinical presentation to the typical presentation of the disease.

Description of Program: The two-part compare and contrast module was part of an online, one-week course on clinical reasoning for 4th year medical students. Learners were given access to an online folder that included detailed instructions and assigned worksheets. First, learners compared and contrasted three similar disease states from a list of disease triads. Next, learners independently completed a compare and contrast worksheet for a provided clinical case before virtually pairing with another learner to compare worksheets for the same case. Specific discussion questions were provided to scaffold meaningful discussion around clinical reasoning. Each learner was required to submit two of the completed worksheets.

Evaluation/Assessment: 103 learners participated and anonymously evaluated the module via online survey utilizing a 5-point Likert scale. 86% agreed or strongly agreed that the module was an effective

use of their time and 91% of learners agreed or strongly agreed that the module was helpful for learning about and practicing medical decision making skills. 83% of learners agreed or strongly agreed that they would change their practice based on this module. Narrative comments included praise for this new approach to differential diagnosis development and an appreciation for gaining better understanding of pertinent positives and negatives.

Conclusions and Lessons Learned: We developed an online module for learners to practice comparing and contrasting diagnoses with self-directed exercises and think-pair-share activities with peers. The module was easy to implement and was well received by learners. With future iterations of the module, we hope to assess a higher level of evaluation and more directly measure efficacy of our stated objectives. This asynchronous, virtual module easily integrates into the clinical curriculum.