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Advancing medical imaging curriculum in pre-clinical Undergraduate medical education

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Keywords

Imaging; Education; Radiology

Abstract

Purpose and Rationale

Even as imaging continues to be increasingly utilized in medical practice, imaging curricula remain unstandardized across universities, with almost three quarters of medical students believing they do not receive enough imaging education. There are large variations in how imaging is taught in medical schools, with one of every six programs having no recognized imaging curriculum. A national study performed in PGY-1 residents demonstrated a lack of confidence in basic imaging skills, such as recognizing abnormal from normal findings and indications for ordering specific tests, as well as understanding adverse effects of contrast agents. This study sought to evaluate the current status of medical imaging education and the impact of recent changes in resource availability throughout the pre-clinical years of medical education at Oregon Health and Science University.

Methods

This builds upon a prior year's project, continuing the work with current medical students at Oregon Health and Science University, who were invited to complete a seven-question survey containing a mixture of multiple choice, Likert scale, and open-ended questions. This survey was aimed at evaluating students' confidence level at interpreting basic findings on common imaging studies, exploring which educational resources are currently being utilized, gauging changes in resource use based on newly available study aids, and determining what additional training opportunities students desired. Additionally, this survey can be compared to the data gathered last year, informing real-time changes in imaging learning support.

Results

Per the first survey, students highly desired additional imaging educational resources to be made available throughout the pre-clinical curriculum. Most students relied primarily on online resources such as google images and Radiopaedia rather than provided resources; based on these results, changes were made to increase visibility of available resources on the learning management system, and additional practice resources such as informative flashcards for structural identification and recognizing common imaging-relevant pathologies have been developed

This year, preliminary results show wide use of informative flashcards, newly provided based on results of the prior survey, as well as a continued trend of utilization of outside resources. As of now, the survey remains available and open, so results will continue to evolve. Going forward, changes will be made to resources based on student feedback and students will be re-surveyed following completion of the core curriculum to determine whether these interventions improved student confidence in basic imaging skills.

Learning Objectives

1. Describe student understanding of available resources provided by faculty.
2. Describe current resources commonly used by students.
3. Identify different strategies for improving access to training resources and introducing students to different modalities for imaging education.

References

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