



2021 LEAD Capstone Poster Session

Development of an Online CME Course in Imaging Appropriateness for Health Professionals

Karuna M. Raj, MD
Assistant Professor
Department of Radiology



Abstract

- The US healthcare system spends \$7-12 billion per year on unnecessary imaging.
- Despite the central role of diagnostic imaging in patient care, it is underrepresented in medical school curricula and continuing medical education courses.
- Interactive, asynchronous online courses for practicing health professionals (including both physicians and advanced practice providers) can help bridge this gap.



Objectives

- To create and implement interactive, asynchronous, online courses for practicing health professionals to review foundations of appropriate ordering of imaging.
- Courses will be targeted to both primary care and specialty services.
- Physicians and APPs can receive CME credit.
- To measure the effectiveness of the courses, data on practice habits of those who have participated will be analyzed and compared to national benchmarks.



Background Information

- The optimal use of imaging is imperative to the practice of medicine.
- Education on appropriate ordering of imaging is widely underrepresented in medical schools and residency training programs in the United States.
- An online learning module on appropriate use of imaging has been piloted in the 4th year of medical school at UTSW with great success.
 - Evaluation of students' performance on a multiple-choice exercise before and after completing the exercise revealed significant increases in knowledge of imaging modality selection and non-interpretive skills in Radiology.



Specific Aims

- Increase knowledge of appropriate imaging utilization through interactive case-based scenarios available through an asynchronous online CME course.
- Improve patient-care through more appropriate utilization of imaging.
- Decrease unnecessary healthcare costs.
- Revenue generated from the course can offset associated costs and become a source of revenue for the institution.



Project Plan

- Analyze practice data from CMS national databases to identify practice areas in which medical imaging rates exceed national benchmarks.
- Create interactive, asynchronous online courses for practicing health professionals with CME course content targeted to these areas.
- Work with UTSW's Office of Continuing Medical Education and collaborate with UT Dallas on development and implementation of an appropriate online platform for content delivery.



Application of What You Learned at LEAD

- Effective leadership
- Working as a team
- Collaboration
- Engaging relevant stakeholders



Proposed Budget

- Initial Development:
 - \$5,000 to 10,000 for initial development of a web-based platform for content delivery
- Ongoing Operation:
 - Online Platform Maintenance + CME Administrative Fees = Up to \$1,000 per year
- *The cost associated with development and implementation will eventually be offset by the revenue generated from the course and can become a source of revenue for the institution.*



Innovation and Significance

- Online courses appeal to the current generation of millennial learners who desire technology-enriched, novel teaching methods that promote active learning.
- Increased awareness of the topic of appropriate use of imaging has the potential to hugely impact patient care and lower healthcare costs.



References

- Kasprzak, T. Technology and Radiology Education – Meeting the Needs of Millennial Learners. *Acad Radiol* 2016; 23(7):844-847.
- Poot JD, Hartman MS, Daffner RH. Understanding the US medical school requirements and medical students' attitudes about radiology rotations. *Acad Radiol* 2012; 19(3):369-373.
- Gottlieb, RH. Imaging for whom: patient or physician? *Am J Roentgenol* 2005; 185(6):1399-1403.
- Wilcox, K. "What Can Clinical Decision Support Do For Your Practice." *ACR Bulletin*. ACR Press June 2018. Web. 27 May 2018.
<https://acrbulletin.org/current-issue/1588-what-can-clinical-decision-support-do-for-your-practice>
- Eser Z. Confidence Based Marking: Implementation and Feedback Measures. *Journal of Higher Education Theory and Practice* 2012; 12(1):27-38.