LEARNING X-RAY INTERPRETATION IN CONTEXT: A TABLET PC RESOURCE FOR THE EMERGENCY DEPT

[1]Athwal K, [1]Esani K, [1]Youssif A, [2]Pusic M; [1] Dept. of Pediatrics, University of British Columbia, Vancouver, Canada; [2]Dept. of Pediatrics, College of Physicians and Surgeons, Columbia University, New York, NY, USA

In Emergency Departments a centrally located x-ray viewing box or PACS monitor is the site of many learning interchanges between faculty and trainees. We propose that multimedia materials can augment these learning interchanges.

We have affixed a Tablet computer immediately adjacent to the Emergency Department x-ray view box. While considering a patient's x-ray, trainees and faculty interact with the tablet using a pen and screen interface. Using an efficient 3-click interface, the custom-developed software presents a wide variety of instructional materials including: 1) representative normal views of all bones that can be either fully labeled or the labels revealed by clicking on features; 2) each normal view is supplemented by images of variants including age-specific changes in appearance; 3) schematic views show graphics of complex structures; 4) videos and animations demonstrate pathophysiologic mechanisms; 5) embedded tutorials demonstrate the systematic examination of a particular type of film. We will present utilization data from the first year as well as student satisfaction data.

Besides its obvious logistical advantages over textbooks and radiology teaching archives, this intervention supports situated case-based learning. The technique can be generalized to support image-based learning in a wide variety of clinical settings.

Benefit to Participants: Participants will discuss the use of a multimedia application to support the learning of trainees right in the clinical flow of seeing patients. Participants will also learn a number of instructional strategies by which multimedia can support image-based learning. We will also discuss the role of the program for performance support for practicing clinicians.