

SIMMS: SURGICAL INTERACTIVE MULTIMEDIA MODULES

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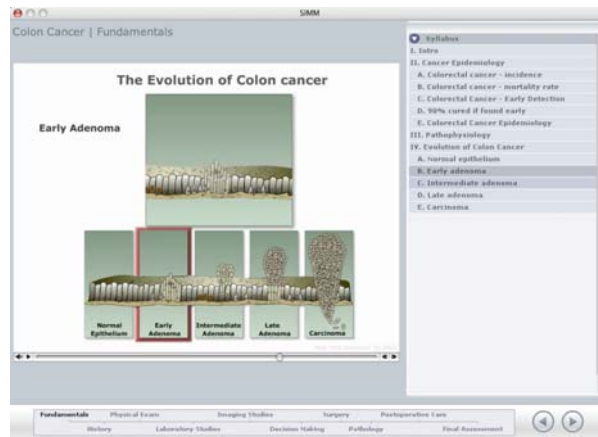
Educators at our school recognized that the traditional approach to the surgical clerkship was no longer adequately preparing students for practice and was not ensuring a minimum level of exposure to cases. To help address many of these problems, we developed computer-based, self-directed educational modules called Surgical Interactive Multimedia Modules (SIMMs) to deliver a core surgery curriculum, and emphasize the teaching of clinical reasoning skills. SIMMs expose students to the fundamental concepts behind the surgical problem, surgical anatomy and operative technique, basic science concepts, differential diagnoses, and the medical decision-making process. The SIMMs use a theory-based instructional design and the strengths of digital video and 3-D animations for education.

The SIMMs integrate digital video, 3-D models, self-assessment, and medical evidence to generate a dynamic learning environment. The interface was designed around the narrative timeline, a familiar metaphor for students to interact with learning objects. These modules are targeted toward third-year medical students and provide a ‘cognitive apprenticeship framework’ for novice clinicians who may not get sufficient exposure to common cases or faculty and residents. SIMMs supplement the students’ clinical experience with new interactive cases and new knowledge to help fast-forward the development of the clinical reasoning process.

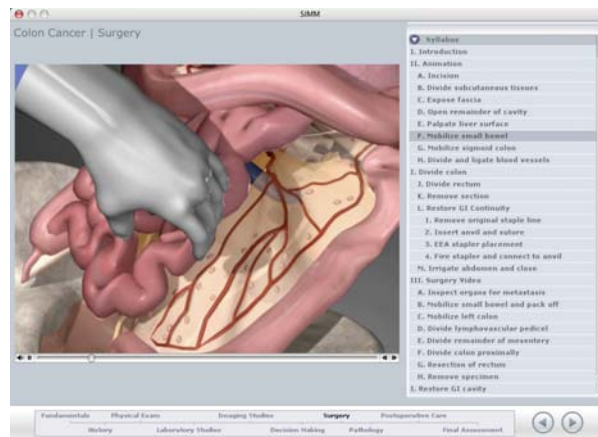
The capabilities and success of the SIMMs at our institution have both informed and transformed the evolution of the clinical curriculum for surgery. We are currently engaged in a number of studies of the educational impact of the SIMM, including a multi-institutional controlled study with the Consortium on Medical Education and Technology (<http://comet.med.nyu.edu>), a group of 13 academic medical centers addressing the deficiencies and challenges of the current health care and educational environment through the collaborative development of new teaching and assessment modalities. Preliminary findings from our assessments show that the SIMM improves short and long-term recall of knowledge, that students are better prepared in the operating room, and they believe they are learning clinical reasoning skills rarely available to them in traditional training. Our faculty report a noticeable change in student interest and preparation for clinical learning.

More information about the SIMMs is available at: <http://simms.med.nyu.edu>.

Colon Cancer SIMM – Pathophysiology Animation



Colon Cancer SIMM – 3-D Surgery Animation



Colon Cancer SIMM – 3-D Surgery Animation with digital video comparison

