COMPUTER-BASED INTERACTIVE TUTORIALS FOR LEARNING MEDICINE

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"Tell me how this fits together." In teaching at Harvard Medical School (HMS), this is the most common plea heard from students. They need a framework on which to hang the facts they are learning and a conceptual approach that helps them make sense of those facts. In addition, they need to know how the basic science material that they learn is related to the practice of clinical medicine. While the curricula for the basic science courses and clinical rotations are related, there have been few attempts to integrate and revisit material covered in previous years as the learners' level progresses. This presentation demonstrates an approach to addressing these issues via Web-based tutorials that integrate basic science and clinical material.

We developed a series of learning modules on key concepts in physiology, pathophysiology and internal medicine. These interactive tutorials were designed to enable horizontal integration (showing relationships between organ system concepts at a student's current level) as well as vertical integration (drawing relationships between the physiology/pathophysiology of an organ system concept and its clinical applications). Each tutorial contains an integrated set of materials, including interactive diagrams (animations and simulations), self-test questions, and text passages, designed to guide students' exploration of challenging topics. The structure of the modules is sufficiently general as to provide an approach that can be applied to a broad range of areas to enhance the learning of difficult conceptual material. This presentation displays examples of the tutorials along with data on their use.