CLINICAL HEALTH ECONOMICS SYSTEM SIMULATION: TEACHING SYSTEMS- AND PRACTICE-BASED COMPETENCY

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Introduction: Individuals interested in developing applications for the web from existing materials as well as individuals responsible for teaching medical students, residents or MPH students about healthcare economics would benefit from this session that addresses a neglected topic in medical education. The application will be demonstrated along with a discussion of the instructional design process of application development.

Abstract:
Healthcare economics is an important but neglected topic in medical education. To address this disparity we developed the Clinical Health Economics System Simulation (CHESS) to teach healthcare economics using a faculty-guided case-based format. In small group sessions, students view cases with several medically appropriate treatment options that vary in intensity and cost. They then view the effects of their treatment decisions on patient and societal costs as well as their own incomes. CHESS displays the economic consequences of students' decisions and allows learners to select alternative treatments or vary key characteristics to conduct sensitivity analyses. The faculty facilitator guides discussions about topics such as cost-effectiveness, incentives, benefit design and ethical dilemmas.

CHESS has been enthusiastically received in the UVA Internal Medicine residency program and 3rd year clerkship and is also seeing educational use nationally. Data indicates that 97% of respondents preferred CHESS to traditional lecture format and 98% reported increased knowledge of health economics after viewing the simulation. However in its initial form, CHESS had many limitations including local installation and trained facilitator requirements. Additionally, the original version of CHESS did not support individual play or exploration of topics of interest.

To address these limitations, a web/Flash-based version of CHESS was developed that will ultimately be available to all learners via the Internet. Web-based CHESS allows for simulation use either individually or in groups, with or without the use of a facilitator. Assessment will be build into the program as will supplemental content materials for more advanced learners.