

Clinical reasoning integrated in Computer Based Training

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Abstract:

In January 2003, four Dutch medical centers have started a cooperative project to integrate clinical reasoning in the Dynamic Patient Simulator (DPS®). The DPS is a Computer Based Training program that simulates patients with a wide range of medical conditions in various situations and time spans. The main educational goal of the program is the training of decision-making. By integrating clinical reasoning with the DPS, students not only learn to make decisions independently, but also to explicate the clinical reasoning process that leads to their choices. To accomplish this integration, a special module was developed within DPS. The module enables the students to unfold four steps in the clinical reasoning process; selecting activating findings from a patient record, grouping these into more general conclusive medical problems, generating hypotheses for each problem and discriminating between hypotheses by requesting additional tests. DPS automatically assists students on their request, based on the logic of aggregated subsets of findings the teacher has stored in a so-called problem tree.

The participating medical centers have developed 25 new patient simulations that are specially designed for clinical reasoning. Student-tests were performed with the first simulations to evaluate the current (incomplete) version of the clinical reasoning module at Nijmegen University. All students are confident that the finalized module will have the potential to teach clinical reasoning in the intended teaching setting (stand alone simulations in addition to small group sessions with an expert).

The presentation will elaborate in more detail the student's perception of the clinical reasoning module.

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