

Simulation as a Mechanism for Education and Evaluation of Resuscitation

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Introduction:

This study sought to evaluate the effectiveness of simulation-based instruction and evaluation of psychomotor and behavioral resuscitation skills. Study participants were 4th year medical students enrolled in the Department of Anesthesiology's elective resuscitation course. This five-day course is based on the American Heart Association's Advanced Cardiac Life Support (ACLS) protocols. Several types of data were collected: responses to a post-course questionnaire; ACLS pre-course and final written exam scores; responses to a case study exam written by course instructors; videotapes of student performance on a simulator-based ACLS mega-code (practical skills exam); and outside evaluators' responses to the videotaped mega codes. An exemption was granted by the Biological Sciences IRB for this study.

Results:

Preliminary evaluation of the data, and interaction with students during the course suggest that students are accepting and extremely enthusiastic of simulation as a mechanism for content delivery and academic evaluation of their clinical skills. Further evaluation of our data will validate the use of simulation for the instruction and assessment of psychomotor and behavioral skills associated complex decision making during high acuity patient management such as resuscitation (Gordon, Oriol and Cooper, 2004).

Conclusion:

Incorporation of high-fidelity simulation in the medical school curriculum addresses various ethical issues associated with the introduction of students to patient care. Simulation provides students with valuable experiences that will shape their future practice (Friedrich, 2002). Analysis of this data will provide evidence to support inclusion of simulation-based curricula throughout medical education.

References:

- Friedrich, M.J. (2002). Practice Makes Perfect: Risk free medical training with patient simulators. *JAMA*. 288(22), 2808-2812.
- Gordon, G.A., Oriol, N. E., Cooper, J. B. (2004). Bringing good teaching cases "to life": A simulator-based medical education service. *Academic Medicine*. 79(1), 23-27.