

## **“Play it Again Sam” - A New Approach to Simulation**

Roger Marks, M.D., M.H.A.  
Ilya Shekhter, M.S., M.B.A.  
Christopher Gallagher, M.D.  
Michael C. Lewis, M.D.

University of Miami, Miami, Florida

### **Introduction**

High fidelity human patient simulators (HPS) are important tools in medical training.<sup>1</sup> However, because of time constraints, their use is compromised. Scenarios are not repeated after the errors made are analyzed and corrected. It is our intention to explain the benefit of repeating the scenario in order to maximize the learning experience.

### **Method**

During the two weeks that medical students spend in anesthesia, we have scheduled them for two one-hour sessions in our simulator lab. During the first session, they are taught to perform a routine anesthetic induction and then a rapid-sequence induction. During the second session, they are presented with a case of ventricular fibrillation (VF) during general anesthesia. This scenario is followed by a debriefing session during which the students are introduced to the basic concepts of crisis resource management (CRM). A similar scenario is then run to reinforce the learning experience. The students complete an evaluation at the end of the clerkship and rate the lectures and simulation on a scale of one (low) to five (high). These assessments were then collected for analysis and evaluation.

### **Results**

The average score for the lectures was 4.3 (from a possible score of 5). The average score for the simulation was 4.8. Comparison of these results using a student's t-test indicated a significant difference ( $p < 0.013$ ). This indicates that the medical students prefer this method of learning to formal lectures.

### **Discussion**

Simulation typically involves a scenario and debriefing session aimed at correcting errors and providing insight into why those errors occurred. However, allowing the trainee the opportunity to repeat the scenario and “get it right” has both academic and psychological advantages for both the trainee and the instructor. The instructor is able to verify that the material is understood and can be applied. The trainee benefits from the satisfaction of being able to demonstrate that he now knows how to perform the task successfully, thus reinforcing the material just learned, while also gaining confidence to deal with a similar clinical situation in the future. Thus, repeating the scenario resulted in a positive learning experience that was reflected in the high scores received in the evaluations.

### **References**

1. Good ML. Patient simulation for training basic and advanced clinical skills. *Med Educ* 2003;37(s1):14-21.