Scripting Scenarios for the Human Patient Simulator

Authors: Bacal, Miller, Doerr
Reviewers: Paul, McCulley

Introduction: The Human Patient Simulator (HPS) is particularly useful in providing scenario-based learning which can be tailored to fit specific scenarios and which can be modified in realtime to enhance the teaching environment. Scripting these scenarios so as to maximize learning requires certain skills, in order to ensure that a change in student performance, understanding, critical thinking, and/or communication skills results. Methods: A "good" scenario can be defined in terms of applicability, learning opportunities, student interest, and clearly associated metrics. Obstacles to such a scenario include a lack of understanding of the applicable environment by the scenario author(s), a desire (common among novices) to cover too many topics, failure to define learning objectives, mutually exclusive or confusing learning objectives, unskilled instructors, poor preparation, disorganized approach, or an inappropriate teaching philosophy (such as "trial by fire" or education through humiliation). Results: Descriptions of several successful teaching programs, used in the military, civilian, and NASA medical environments, will be provided, along with sample scenarios. Discussion: Simulator-based lessons have proven to be a time- and cost-efficient manner by which to educate medical personnel. Particularly when training for medical care in austere environments (pre-hospital, aeromedical transport, International Space Station, military operations), the HPS can enhance the learning experience.