

Medical Simulation Heightens Joint Service and Multinational Force Readiness Training

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Abstract — Integrating complex medical scenarios and patient engagements in training exercises from the point of injury and stressed throughout the chain of evacuation can ascertain readiness at the individual, unit, and Joint Service level. Medical simulation provides a training standard and an objectivity to evaluate individual clinical proficiency and leadership responses to a myriad of enroute patient care situations. The challenge is selecting the correct training modality, operational setting and simulators required to assess readiness across the continuum of care. Developing tailored medical simulation solutions based on the scope of practice and operational scenarios can redefine expectations of what realistic training is possible whether on the battlefield or in the hospital.

1 Introduction

The Joint Project Manager for Medical Modeling and Simulation (JPM MMS) is jointly chartered by the U.S. Army and the Defense Health Agency (DHA). It contributes to the DHA's quadruple aim of providing better healthcare, a healthier force, at a lower cost which all serves to increase readiness. How will this level of readiness be achieved? The purpose of our organization is to deliver MMS capabilities based upon the validated and funded requirements of the Military Health System (MHS).

2 Examples Discussed in Presentation

Verisimilitude is “the appearance of being real.” This presentation will utilize a couple videos to demonstrate the efficacy of verisimilitude in medical training exercises. For example, in the video depicted below (see Fig. 1) realism is achieved with a mannequin providing physiological feedback.



Fig. 1. Medical training exercise at a Role II facility.

Additionally, the importance of realistic medical simulation or “verisimilitude” is magnified in joint service and multinational force readiness. Different languages, cultures, equipment, and treatment algorithms must be reconciled before casualties arrive.

3 Conclusions

Realistic medical simulation is critical to ensuring force readiness. Medical simulation is used across our enterprise; therefore, we need an enterprise approach to managing simulation called ‘Lifecycle Management’. The value of training is realized across all roles of care, from Point of Injury through definitive care and ultimately to ‘Return to Duty’ for all services. We can learn from each other’s successes and shortfalls to improve our own capabilities.

Author/Speaker Biographies

Colonel McIntosh is the Joint Project Manager for Medical Modeling and Simulation (JPM MMS) responsible for the materiel development, Acquisition, and lifecycle management of innovative medical simulation solutions across the Department of Defense. Colonel McIntosh is an Army Aviator experienced in program analysis, test and evaluation, capability requirements development, product development, and procurement.

Lieutenant Colonel (Dr) Baker is a board-certified Emergency Medicine physician with extensive experience training combat medics, nurses, physicians, and Special Forces medics and operators in garrison and deployed environments. His past assignments include Medical Director at Landstuhl Regional Medical Center Emergency Department in Germany and multiple Special Forces assignments.