



## **Patient Movement from the Battlefield to Home: A Department of Defense Use Case on Interoperability Challenges**

Angela Icaza, RN-BC, MS, MBA, Patrick Shannon, RN, MS, CPIMS; Miko Watkins, RN-BC, MS, MSN; Elizabeth Fleischer, MSN, BS, RN-BC, NREM; Stephanie Raps, RN

This presentation utilizes a global Use Case of patient movement to describe interoperability challenges from the battlefield to rehabilitative care. With our current conflicts in Iraq and Afghanistan, it is common for a patient to move from the point of injury to a state-side medical treatment facility within 48-72 hours. During this short time span there are numerous hand-offs as the patient is treated by multiple teams and facilities. Some of the treatment facilities and teams, including air transport and expeditionary, have little to no access to a fully developed communications network that would support an integrated electronic health record. Further complicating the exchange of data, some of the patients will eventually transfer to a Veterans Administration (VA) or civilian facility for rehabilitative care. The Department of Defense (DoD) Use Case may be unique, but many of the challenges with interoperability are similar throughout healthcare. Using the three HIMSS levels of interoperability we will focus on how the DoD compares to industry standards. Across the levels of foundational, structural, and semantic interoperability (HIMSS, 2013), some, but not all, DoD data can be exchanged and interpreted by DoD information systems. Unfortunately, there are major gaps sharing data across the military Services, within each Service, and with our external partners. A common interoperability challenge includes limited data exchange between disparate clinical, business, and administrative systems. As the Use Case describes, using multiple systems at various stages during transitions of care challenges our best attempts to semantically share data with our internal DoD and external civilian and VA partners. Due to Congressional interest, some of our DoD interoperability challenges are highly publicized, particularly the limited data interoperability with the VA. Less commonly publicized are the efforts to resolve these challenges. At a high level we will discuss the near-term and long-term solutions to limited data interoperability. The DoD's resolution for limited data interoperability includes organizational changes, commitment to standards, and ultimately development and acquisition of new technology. The solutions discussed are relevant to DoD-specific and conventional interoperability challenges within healthcare.