



## PRESS RELEASE

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### **SIMQUEST HELPS NAVY DEVELOP NEW COMBAT INJURY CODING SYSTEM**

#### ***Paves the Way for more Accurate Combat Injury Coding***

BOSTON, MA, November 25, 2013 – After 5 years of development, a new combat injury coding system and associated military functional impairment scale were developed by SimQuest and the US Office of Naval Research (ONR), and a manuscript was published in the October issue of *Journal of Trauma and Acute Care Surgery*. The work was completed under the ONR-funded Human Injury and Treatment (HIT) project.

*Why is injury coding important?* Systems for coding traumatic injuries based on objective criteria allow data to be compared, which is invaluable for research and for evaluating/improving care. Both civilian and military injury severity scales have been developed. Existing scales, however, have not been able to accurately characterize combat injuries, particularly those caused by improvised explosive devices (IEDs), which make up the majority of current combat injuries. Thus, new scales were needed.

A primary goal of the HIT project is to be able to estimate crew casualties and subsequently plan for personnel performance and medical treatment resulting from various threat scenarios. As part of that program, the Military Combat Injury Scale (MCIS) was created by a panel of military and civilian injury experts, including those with recent experience in Iraq and Afghanistan. Next, the Military Functional Incapacity Scale (MFIS) was developed to rank the degree of immediate incapacitation associated with injuries.

- The simple-to-use MCIS stratifies injuries into five severity levels ranging from 1 (minor) to 5 (likely lethal) based on risk of death, urgency, and level of care needed.
- MFIS levels, which range from 1 (able to continue mission) to 4 (lost to military), were determined based on predicted ability of the casualty to perform essential tasks. Initially created for ground troops, the MFIS was later expanded to roles aboard Navy ships, which illustrates the implications of shipboard injuries on medical care, tactical planning, and resourcing.
- The MCIS and MFIS are used in tandem. First, the MCIS defines the level of severity, and then the MFIS associates the functional effects of the injury on the mission. For example, MCIS 3 (serious) injuries correlate to MFIS 3, indicating that casualties with these injuries will be lost to the mission.

“Publication of this manuscript,” said lead author Mary Lawnick, RN, BSN, SimQuest Project Manager, “brings to light how lessons learned in combat can rapidly be applied. The knowledge gained in current conflicts, particularly of IED-related injuries and their care, was applied here to make the MCIS and MFIS relevant to current and future combat casualty care.”

“SimQuest was proud to participate in this project,” stated coauthor, Howard Champion, MD, SimQuest’s CEO. “It allowed us to leverage our considerable expertise with injury severity scoring to help the Navy develop new scores that have real implications for combat casualty care. We are also proud to have our paper describing the development and utility of these scores published in the *Journal of Trauma and Acute Care Medicine*.”

**Disclaimer**

This project was funded by the Office of Naval Research, Human Injury and Treatment (HIT), Contract Number N00014-11-C-0061. The views expressed are those of the authors and do not reflect the official policy or position of the Department of the Navy, Department of Defense, or the U.S. Government.

**About SimQuest**

SimQuest creates innovative medical training and database solutions as well as state-of-the-art simulators that allow physicians and other healthcare professionals to develop and perfect their skills without risk to patients or animals. Our content is driven by end users, both trainers and trainees, so it exactly fits training needs.

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