

**TATRC Highlighted Research News Article:
“A Joint Military and Civilian Trauma Institute”**

January 6, 2010

A New National Effort for Better Trauma Care



U.S. Army medical personnel at Bagram Airfield treat a survivor of the avalanche at Salang Pass in the Parwan province of Afghanistan, Feb. 9, 2010.

Photo by Spc Brandon M. Evans



“What we’re talking about here is going beyond technically saving a life to getting wounded warriors and civilians back to being a productive part of society and their families again.”

What if a slight change in the way a wounded service member was first treated could lead to a better long-term recovery?

It is just this “what if” that the National Trauma Institute, based in San Antonio, Texas, seeks to discover.

There has never been a national organization devoted exclusively to funding and conducting trauma injury research. Until now.

As the country’s first military and civilian partnership in trauma care, the not-for-profit NTI is uniquely situated to mobilize a rapid nationwide research effort directly aimed at reducing the number of deaths and disabilities due to trauma.

Historically, trauma research has received relatively low funding—less than a tenth of what is devoted to cancer or HIV.

“Yet, when surveyed, Americans say that saving our warriors is a top military medicine funding priority,” says COL Lorne Blackbourne, commander of the U.S. Army Institute of Surgical Research (USAISR) and an NTI board member. “The NTI is one answer to this issue, bringing the country’s top military and civilian trauma injury experts together to focus on improving outcomes after serious injury.”

New ICU Registry Links Data for Better Care

One of the first NTI projects to come online is an automated ICU registry, with a pilot system expected to go live in April.

The military already electronically compiles combat trauma data in the Joint Theater Trauma Registry, headquartered at the USAISR at Fort Sam Houston. Researchers use this medical data from combat support hospitals to identify ways to improve protective equipment and battlefield care to save more lives.

However, the military lacks a similar registry to gather ICU medical data such as lab studies, medications and daily vital signs in order to analyze trends and outcomes once Soldiers are transferred to Landstuhl regional medical center in Germany or back to the United States.

“NTI’s efforts in this area are vital because we realize that improving combat casualty care is complex,” notes COL Kurt Grathwohl, critical care consultant to the Surgeon General. “These patients often receive treatment involving multiple interventions, spanning thousands of miles and days. Collecting ICU data helps close the loop with respect to understanding the effects of therapies and care throughout the continuum of care.”

In the pilot system, NTI will link its new ICU registry into the San Antonio area’s regional trauma registry in April. It will first connect University Hospital and Brooke Army Medical Center, which includes the USAISR Burn Center (the nation’s only military burn center).

Says Dr. Ronald Stewart, immediate past chair of NTI, “Nearly all emergency medical services personnel in our area use the same electronic medical record. The first responders input data into their tablets. Through the ICU project, this data will be able to be linked centrally with data from receiving facilities, the transport team, the receiving trauma center and now the ICU. With this fuller picture of the care the patient is receiving and the outcome—in one easy-to-use system—we’ll have a powerful depth of information without the time and errors involved in repeated manual data entry.”

The ICU registry collects 300 data elements on each patient and, once proven, will be fully integrated into the Joint Theater Trauma Registry; in fact, it has been developed by the same software company. It is a web-based program designed to allow data sets from any system, so electronic medical records can load automatically, whether from a military, VA or civilian hospital. Each hospital can simply log in without having to purchase additional software.

NTI estimates the pilot registry will include data on 5,000 patients a year between the first two centers alone. Stewart says, “We can apply this wealth of information immediately to determine where we need to improve care, and toward robust research for the future.”

Stewart explains that clearly seeing the outcomes will help improve pre-hospital care, which is crucial considering the number of transfers involved in a combat setting.

Joining Forces to Improve Trauma Awareness

NTI was formalized in 2006. The hope is that it will be to trauma what the National Cancer Institute is to cancer—a positive force that improves awareness, advocacy and care.

To translate battlefield innovations to civilians at home, and vice versa, NTI has built upon the existing collaborations in San Antonio among USAISR, the University of Texas Health Science Center and three level I trauma centers. These include University Hospital and the military’s only level I trauma centers, BAMC and Lackland Air Force Base’s Wilford Hall Medical Center.

NTI is one of several efforts supported by the U.S. Army Medical Research and Materiel Command’s Telemedicine and Advanced Technology Research Center (TATRC) and Combat Casualty Care Research Area Directorate.

Says NTI Director of Operations Monica Phillips, “TATRC has been a great support and has provided national networking events so we can better connect our work with military needs.”

NTI Executive Director Sharon Smith adds, “When you research the care trauma victims receive, you’ll be amazed at what a minor pre-hospital tweak could do to improve functional outcomes. That sounds very clinical, but what we’re talking about here is

going beyond technically saving a life to getting wounded warriors and civilians back to being a productive part of society and their families again.”

To learn more, visit www.tatrc.org or www.nationaltraumainstitute.org.