ACS-Military Health System partnership prioritizes surgeon readiness and trauma systems

April 22 2016

CHICAGO (April 22, 2016): At the beginning of conflicts in Iraq and Afghanistan, less than half of the surgeons deployed for the first time had received any type of trauma-specific training beforehand. Most surgeons were within a year or two of completing their surgical residency training, and many had not yet been certified by the American Board of Surgery. To ensure this situation does not happen again, the Military Health System Strategic Partnership American College of Surgeons (MHSSPACS) is working on a course curriculum to prepare surgeons before they are deployed to war zones or other areas affected by disasters.

"Surgeon readiness" is a high priority for the MHSSPACS as it enters its second year of a three-year agreement, according to M. Margaret (Peggy) Knudson, MD, FACS, MHSSPACS Medical Director, professor of surgery at the University of California, San Francisco (UCSF), and trauma surgeon at San Francisco General Hospital and Trauma Center. Dr. Knudson is the lead author of an article outlining the partnership's work since its launch in October 2014 and its remaining goals. The article appears online on the *Journal of the American College of Surgeons* website ahead of print.

The creation of a pre-deployment course stemmed from a concern that the next generation of deployed military surgeons may lack the intensive trauma training necessary to care for those injured in combat or victims

of mass casualty events, the authors wrote. Currently there is no standard surgical preparation for military surgeons being deployed, and most military surgeons are based at military treatment facilities where trauma care is not routinely provided.

"I see this course as being very applicable, not only to a military surgeon who's being deployed, but suppose somebody's doing a humanitarian mission and they're going to an austere environment. They would need to know techniques that are a little different than those we use in training general surgeons right now," Dr. Knudson said.

In May 2016, a group of military surgeons who have been deployed will serve as subject matter experts. The group will gather in Chicago to compile a list of the skills and a knowledge base they believe are necessary for surgeons facing deployment. A newly hired project manager/educator will then be charged with creating a survey to go out to every surgeon deployed in the last 15 years, Dr. Knudson said. These surgeons will rank these skills in order of importance and frequency of use. Based on this compiled blueprint, the education committee will develop test questions and validate this compiled curriculum.

"Our goal is to eventually develop a course that will include both didactic and hands-on technical skills that will serve as the basis for pre-deployment preparation. If a surgeon being deployed cannot pass a certain skills station or fails a portion of the written exam, we will have the ability to provide the needed education. Right now, this is one of our top priority projects," Dr. Knudson said.

Another time-sensitive component of the partnership's work is ensuring that the military trauma system that was developed during the wars in Iraq and Afghanistan remains intact between conflicts. When these last wars began, military surgeons set up the Joint Trauma Theater System, which spans three continents and includes five levels of trauma center

care, a flying intensive care unit, a trauma data registry, clinical practice guidelines, and a weekly worldwide performance improvement conference, the authors note. The system resulted in the lowest wartime Case Fatality Rate ever recorded, decreasing from 20 percent in 2005 to well below 10 percent in 2013, despite a steadily increasing injury severity rate. This theater system has since evolved into the Joint Trauma System Defense Center of Excellence (JTS DCoE).

"The question is, should the system disappear now that troops are coming home? If it does, the next time we will have to start all over again," Dr. Knudson said. She said the JTSDCoE, mostly located in San Antonio, Tex., has asked the ACS Committee on Trauma to perform a systems consultation to assist in preservation of the JTSDCoE so that it can easily be stood up for the next conflict.

The third objective for the MHSSPACS is research, which Dr. Knudson said is important, but not as high a priority right now as the deliverables in the other areas. However, she added that now is the time to research areas that can't be studied in a war zone. To get the research arm going in civilian trauma centers, she and colleagues at the National Trauma Institute and the newly formed collaborative called Coalition for National Trauma Research (CNTR) have secured funding for 16 trauma research studies with grants from the Department of Defense (DoD).

"When peace happens, there's not much of an incentive to fund things related to injury, and there's a tendency for that priority to drift," Dr. Knudson said. The paper's authors wrote that injury, despite being the second most expensive public health problem in the U.S., does not have a dedicated research institute at the National Institutes of Health and there are few non-DoD federal dollars available for injury-related research. The DoD is currently the major funder of trauma research through the Combat Casualty Care Research Program.

As a longer term goal, "the MHSSPACS will propose the value of a National Trauma Research Institute sustained by a more sizable, reliable, and enduring non-DoD appropriation for trauma and injury research," the authors wrote.

More information: A Shared Ethos: The Military Health System Strategic Partnership with the American College of Surgeons. *Journal of the American College of Surgeons*.

Provided by American College of Surgeons