



AT THE FOREFRONT

ARMY MEDICINE FINDS NEW WAYS TO DELIVER TRAUMA CARE FASTER.

The U.S. Army health care team has committed to the Golden Hour standard, which refers to getting troops to advanced-level treatment facilities within the crucial first 60 minutes of being wounded. Medical professionals have determined that if a critically injured patient receives definitive treatment within the first hour, his or her chances for survival increase dramatically. U.S. Army innovation in immediate trauma care has resulted in lives saved, with Soldiers receiving medical treatment faster and closer to the point of injury than ever before. In addition, the technologies employed by the Army in the combat theater can have implications for emergency response in the private sector.

Field surgery training – During a weeklong training exercise on Joint Base Lewis-McChord, the 105th and 250th Forward Surgical Teams conducted live surgeries in tents. Soldiers volunteered to have hernia and other minor surgeries so physicians could train for humanitarian missions, disaster relief missions or deployment. With a secure satellite, live clinical data feeds and logistical support, the teams focused on developing new techniques and faster processes that will allow them to better save lives in the field.

Faster medical image transfer – The Joint Telemedicine Network (JTMN) project developed a system with satellite communications capability in order to quickly transmit volumes of medical imaging data from the combat theater. Now, medical personnel can transmit 250 megabit digital X-ray or CT scan images within about 5 minutes, rather than the hours it took before. JTMN also allows for video teleconferencing, remote consultation, transmission of medical records and even ordering of class VIII medical supplies.

INNOVATIVE AND IMMEDIATE TREATMENT

The military medical system has moved assets closer to the front lines to be more responsive to patient needs, and surgical teams are positioned closer to the troops they support. In addition, an extensive aeromedical evacuation capability quickly moves wounded warriors to progressively more advanced levels of care. Beyond these measures, a variety of programs have been pursued that showcase the forward-thinking approach of the U.S. Army health care team.

Wound stasis foam – Internal hemorrhage is the leading cause of potentially survivable deaths on the battlefield. DARPA (Defense Advanced Research Projects Agency) and a medical device company developed a foam-based product that can control hemorrhaging in a patient's intact abdominal cavity for at least one hour. The foam can be administered on the battlefield by a combat medic, and is easily removable by doctors during surgical intervention at an appropriate facility.

Blood transport container – No effective combat-environment, thermal, blood-carrying container existed in 2002 when U.S. troops were fighting in Afghanistan. Col. Francisco Rentas invented the Golden Hour Human Blood Transport Container, a 10-inch-square box that carries blood to the battlefield and preserves red blood cells without the use of electricity, batteries or even ice. The container is still in use today, not only in the U.S. military and private sector medical communities, but also in several countries.

DRIVING ADVANCES IN MEDICINE

The U.S. Army health care team's innovation in trauma care is one example of advanced medical practices you'll find with us. We offer many ways for physicians to explore the areas that interest them the most, while providing crucial support and care for the nation's Soldiers and their families. The potential for research, exploration and practical application of skills is tremendous. Across many different disciplines, we're leading the way – and looking for physicians with skills, passion and commitment, as well as a desire to serve, learn and grow.

**TO REQUEST
MORE INFORMATION
ABOUT A CAREER
ON OUR INNOVATIVE
HEALTH CARE TEAM,
CLICK HERE. >>**



Information for this article has been sourced from www.darpa.mil: "DARPA foam could increase survival rates for victims of internal hemorrhaging" (December 10, 2012); and www.army.mil: "DOD awards team for helping save lives with satellites" (November 6, 2009), "Golden hour initiative pays off in Afghanistan" (May 5, 2011), "Golden Hour Box developer reflects on career" (September 4, 2012) and "FST Surgeons sharpen skills" (September 25, 2012).