

From my perspective

This past June, I had the opportunity to visit Landstuhl Regional Medical Center (LRMC) in Germany, which provides trauma and critical care to U.S. military troops and contractors who experience severe injury or illness while serving in Iraq and Afghanistan. Unquestionably, meeting the wounded soldiers as well as the civilian and military medical and surgical professionals caring for them was one of the most emotional and educational experiences of my surgical career.

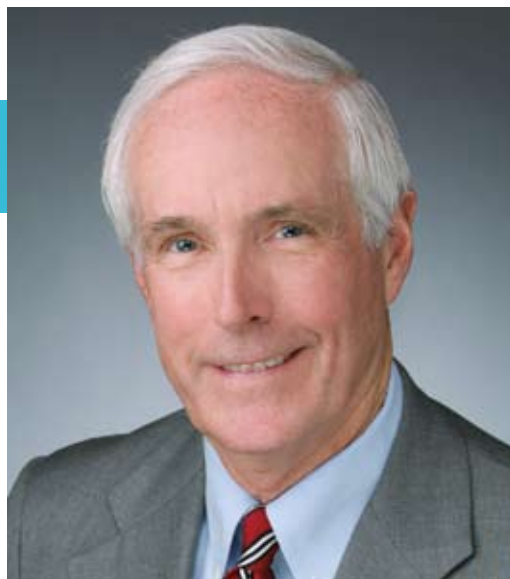
“Wounded warriors”

Landstuhl is actually the last stop for trauma and critical care patients before they are sent to stateside hospitals for tertiary care. These individuals have already been treated in the battle zone by medics, undergone emergency surgical treatment at mobile field hospitals, and received “damage control” services at combat support facilities. Patients who have sustained injuries or acquired illnesses requiring more intensive care are evacuated via air transport to LRMC.

The trauma patients who are admitted to LRMC typically have injuries of a severity rarely seen, such as multiple penetrating wounds to the brain, lungs, viscera, and extremities. Invasive materials lodged in their bodies may include not only shrapnel from grenades and mortar shells typically associated with military conflict, but also rocks, bolts, nails, and other sharp objects embedded in improvised explosives. Severe burns covering more than half of a soldier’s body are common.

In addition to treating trauma patients, LRMC provides services to critical care patients. These individuals present with such life-threatening conditions as heat stroke, near-drowning, pneumonia, malaria, and diabetic ketoacidosis.

The courage and dedication to duty demonstrated by the troops I had the privilege of meeting was extraordinary. Not one of these “wounded warriors” expressed any self-pity, and they were all anxious to get well enough to rejoin their friends and comrades still battling it out in the war zone. Regardless of one’s personal views about our nation’s military activities in the Middle East, we can all be proud of the young men and women who are completing their tours of duty with fearlessness and determination.



“The surgeons who take the time away from active duty or civilian practice to care for our nation’s troops deserve our utmost respect and gratitude.”

Team-based, certified trauma care

Injured patients, who account for 85 percent of the admissions at LRMC, receive care through the hospital’s efficient and efficacious trauma service. This department comprises a multidisciplinary team working in an open intensive care unit (ICU). Core members of the team include fellowship-trained surgical, medical, and pulmonary physicians; critical care nurses; respiratory therapists; nutritionists; an infectious disease specialist; and a pharmacist. Specialists in neurosurgery, ophthalmology, and orthopedics are available for consultation.

Military medical students, residents, and fellows frequently complete an elective rotation at LRMC. In addition, civilians provide volunteer services through the Senior Visiting Surgeon Combat Casualty Program, which the College’s Committee on Trauma (COT) cosponsors with the American Association for the Surgery of Trauma. Based on the clinical information available before the patients’ arrival, a surgical intensivist at LRMC triages all casualties and surgical patients to inpatient versus outpatient status, ward versus ICU admission, and primary admitting service. I was amazed to see how quickly and accurately a soldier’s complete medical chart



Dr. Russell with Stephen F. Flaherty, MD, FACS (middle), Director of the Trauma Program at LRMC, and other members of the surgical and critical care team.



The LRMC team loads patients onto a bus, which transports the soldiers to aircraft for return to the U.S.



The LRMC team must carefully load injured patients, some of whom are attached to hundreds of pounds of life-support equipment, onto the bus and the aircraft.



Two C-17 airplanes, which are used to fly patients from LRMC to stateside military hospitals.

can be electronically transferred from military hospital to military hospital.

As noted in other recent *Bulletin* articles about LRMC, this facility is the only military hospital outside the continental U.S. to achieve ACS verification as a level II trauma center.* That a military hospital was capable of meeting all of the ACS COT's rigorous criteria for level II trauma center certification is an impressive achievement, particularly in light of the

*See pages 16–19 and 20–23 of the December 2007 issue.

large number of patients the facility receives each day.

Transfer to the U.S.

The average length of stay at Landstuhl is less than 72 hours. Once they are stabilized, troops are triaged to one of the military's stateside tertiary care hospitals, such as Walter Reed Army Medical Center, Washington, DC; National Naval Medical Center, Bethesda, MD; Brooke Army Medical Center Burn Unit, San Antonio, TX; or San Diego (CA) Naval Hospital. They are



A patient on the bus that will take him to an awaiting C-17 for the return trip to the U.S.



Inside the C-17, the crew stabilizes patients and checks equipment for the flight back to the U.S.

transported via C-17, C-130, and other aircraft large enough to transport many patients and the equipment and medical personnel necessary to care for them on the long flight to the U.S.

Physicians and surgeons with critical care certification lead the in-flight medical team, which also includes critical care nurses and a respiratory therapist. Patients requiring mechanical ventilation are placed on gurneys along the interior walls of the aircraft, which have access to systems that can power state-of-the-art ventilators and other life-support mechanisms. To the crews' credit, it is highly unusual for a patient to die during transfer.

Of course, some of the patients at LRMC are too weak to withstand hours of air travel. In these cases, the military contacts the families and arranges for inhospital visits and lodging.

Program worthy of our pride

It has been said that the only victor in war is medicine. Without a doubt, the selfless military and civilian surgeons who provide care at LRMC are learning some very important lessons that they will be able to apply at trauma centers back home.

The ACS and the American Association for the Surgery of Trauma can be very proud of the Senior Visiting Surgeon Combat Casualty Program at LRMC. To show the College's respect for this effort, ACS Regent A. Brent Eastman, MD,

FACS, participated in this program last summer and delivered a Certificate of Appreciation to the surgical teams at the LRMC. Indeed, the surgeons who take the time away from active duty or civilian practice to care for our nation's troops deserve our utmost respect and gratitude. I would encourage interested trauma, neurological, vascular, and orthopedic surgeons as well as career surgeons to get involved in this very worthwhile program.

I will be forever appreciative of the opportunity to visit LRMC. It's almost impossible to put into words how moving and inspiring this experience was. Perhaps the photographs that accompany this column will help to tell the story more completely.

A handwritten signature in black ink that reads "Tom Russell". The signature is written in a cursive, flowing style.

Thomas R. Russell, MD, FACS

If you have comments or suggestions about this or other issues, please send them to Dr. Russell at fmp@facs.org.