

Chapter 48

AFTERWORD

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The deployment experiences of the senior authors of this head and neck trauma textbook, all of whom have deployed to either Iraq or Afghanistan or both, have had a profound impact on their lives. These wartime head and neck surgeons have witnessed the carnage of war and the medical miracles (which occur on a daily basis) that repair and save lives. Every one of these head and neck surgeons has similar sentiments on their wartime experience.

First, their experience in either Iraq or Afghanistan was the most important and rewarding professional experience in their lives. It is a tremendous honor and humbling privilege to care for the young heroes who risk their lives to protect our nation and our way of life. To watch these young volunteer men and women weather the horrors of war while making life and death decisions on a daily basis is awe-inspiring. There is no greater honor than to help return these wounded heroes to their loved ones and home. As one surgeon told his four children on Christmas Day during his first deployment, "Your Daddy is in Iraq so that these young soldiers and marines can be with their families at Christmas." Until you deploy, you cannot fully understand the sacrifices these young men and women make.

Second, the experience in Iraq or Afghanistan was the most challenging and most stressful experience in our lives. The complex and devastating injuries, combined with many long sleepless nights, would test even the most hardened surgeon. However, as previously noted, there is no greater honor than caring for our soldiers, marines, airmen, and sailors. As a result of these experiences, all of us have been transformed by our deployments and returned to our homes changed. As many of us tell our significant others, it is a "good" change.

Third, those who deploy soon realize that they have an obligation to ensure that future generations, to include our sons and daughters, benefit from the lessons we have learned that have been paid for in blood. The deployed head and neck surgeons have a duty and an obligation to ensure that our fellow staff members, residents, and medical students benefit from our experiences in Iraq and Afghanistan. Many of us have returned from the war zone with a renewed energy and commitment to teach our residents these hard lessons learned. In addition, every war has provided valuable trauma lessons that have vastly improved the peacetime trauma care given to our civilian counterparts. Consequently, deployed head and neck surgeons have a duty to ensure that these lessons learned are shared with the civilian head and neck community.

In a recent article in the *Journal of Trauma*, the front cover showed a graph that demonstrated between 2005 and 2013 that the Injury Severity Score in Afghanistan continually climbed, an indication that the severity of trauma injuries treated by US surgeons increased. However, during this same timeframe, the case fatality rate (CFR) decreased.¹ This decrease in the CFR, which occurred while the Injury Severity Score was increasing, is directly due to the application of lessons learned earlier in Operation Iraqi Freedom and Operation Enduring Freedom. The "rapid application of evidence-based trauma care to injured service personnel"^{1(p5105)} accounted for this decrease in the CFR.¹ Sadly, history has shown that during peaceful interwar periods, there is less emphasis placed on benefitting from the costly lessons learned in wartime. As deployed trauma surgeons, we have a sacred obligation to ensure that our historically low CFRs do not increase but, in fact, decrease before the inevitable next war.¹ Consequently, this is why the deployed head and neck surgeons have spent more than 2 years and thousands of hours organizing, writing, and editing this textbook.

During the head and neck deployments early in Operation Iraqi Freedom and Operation Enduring Freedom, many of our authors would deploy with various trauma textbooks that detailed the management of low-velocity civilian trauma.

- None of these textbooks covered the full spectrum of head and neck injuries.
- None of these textbooks fully described the complete evaluation and management of these head and neck injuries in both acute and delayed settings.
- None of these textbooks detailed the unique management of high-velocity head and neck trauma that use to occur solely on the battlefield, but is now occurring in civilian settings.

Consequently, the authors labored to provide a *comprehensive head and neck trauma textbook*, based on wartime experiences, which would fill in all of these gaps for future combat surgeons.

The emotional experience of deploying and personally witnessing the courage and sacrifices of those who deploy is more difficult to explain than the surgical lessons learned that are detailed in this trauma textbook. One of the editors was asked to write a short commentary on the tenth anniversary of 9-11 for the *Southern Medical Journal* that described this emotional experience. The following commentary, which was written in about 30 minutes, describes his emotional experience during his first deployment to Iraq in 2004/2005:

After returning from my first deployment to Iraq in February 2005, I had decided I would separate from the military and enter civilian practice. I had served during some of the bloodiest months of the war and performed about 250 operations on wounded American servicemen, Iraqi soldiers, Iraqi enemy combatants, and civilians. I was tired, a bit burned out, and emotionally exhausted after witnessing so many young people's lives forever changed by war. So, I submitted my resignation paperwork that was approved and prepared to enter the civilian practice of medicine. But it was not to be.

As I began to travel to job interviews, fill out civilian credentialing applications, and mentally take off my uniform, I became very uneasy and could not erase the thoughts of those heroes who I served with each day in Iraq. I remembered the amazing Army medics and Navy corpsmen who would intervene under the most austere conditions and save the lives of their fellow soldiers and marines. Every time a marine or soldier came into my emergency room with an emergent cricothyroidotomy placed in the field, I marveled at how these young medics could place this small tube through a hole in the neck under fire, without suction, headlights, and all the other resources I have in the hospital. Without their daily heroics, all of the wounded I treated in my hospital would have never made it home to be with their families.

I remembered the unstoppable helicopter crews and medics. During the battle for Fallujah in November, 2004, which was the bloodiest American battle since Vietnam, I watched those helicopter crews bring 381 wounded Americans and countless Iraqis to our hospital over a 10-day period. I watched these amazing soldiers, marines, and airmen continually drop off the wounded, grab new supplies from our hospital tent, take off again for Fallujah, and return. I don't think some of those hospital crews slept for these 10 days. But, they knew that if they could bring those wounded to our hospital breathing and with a pulse within a short time of their injury, they would survive. And they made this happen.

I remembered the selfless emergency room doctors, nurses and technicians who sorted out the wounded and performed triage. These medics were at the tip of the spear for our hospital and ensured that if you arrived alive, you would survive your wounds. We were blessed to not only have highly trained American medics working with us, but to have Australian and British medics saving lives also. I remembered the medicine and pediatric doctors, nurses, and technicians who had the thankless job of caring for the wounded on the American, Iraqi, and enemy prisoner of war (EPW) intensive care units and wards. We would literally drop critically ill patients off at their

feet to run back to the operating room, and these incredible medics would care for these wounded until they left our hospital.

I remembered the 12 surgeons whose job was to repair the carnage of war, stabilize the patients, and send them for higher level care in Landstuhl, Germany. I remembered the trauma surgeon who somehow found the end of the trachea sticking out of a gaping hole in the lower neck and intubated this Iraqi in the midst of pouring blood, thus saving his life. I remembered the orthopedic surgeons saving the life of a young airman on our base hit by a mortar who lost both legs and an arm. I remembered the Australian and American neurosurgeons stopping the bleeding of a young marine shot in the forehead and bleeding profusely from his cavernous sinus. I remembered the vascular surgeon quickly controlling the torn internal carotid artery at the skull base while pressure was being held over the young soldier's face in an attempt to slow the profuse arterial bleeding. Lastly, I watched the head and neck surgeon struggle with the decision to declare an EPW with a devastating forehead/brain injury "expectant" and allow him to die in comfort with respect.

I remembered the unprecedented aeroevacuation system, called Critical Care Air Transport Teams (CCATT), which transported the most critically wounded patients from Iraq to Landstuhl, Germany, and then to the United States. I remembered the young marine hit by a rocket-propelled grenade with a gaping hole in his midface with complete destruction of his maxilla/mandible requiring over 20 units of blood. After his bleeding was slowed, the next CCATT flight was scheduled in 12 hours, so an emergent request was made to transport this marine to Landstuhl for interventional radiology assistance. I remembered standing in awe as this wounded marine was wheeled onto a massive C-17 medical transport plane 3 hours later after the aircraft was redirected to Balad, Iraq, for the sole purpose of saving this one hero's life.

I remembered flying with the CCATT angels on Christmas Day, 2004, as they transported dozens of severely wounded Americans who were attacked by the suicide bomber in the Mosul dining hall. Watching these young intensivists, anesthesiologists, surgeons, nurses, and technicians gently care for these young heroes was the best Christmas gift I ever received. I remembered landing at Andrews Air Force Base and watching the dozens of uniformed medics who left their families on Christmas Day arrive to welcome and treat these wounded soldiers.

I remembered how proud I had always been to be a part of the finest military medical corps in the world. Since the start of the Iraqi war, I had watched our stateside medics, nurses, and technicians provide the

finest and most complex care to our wounded both at Brooke Army Medical Center and at Wilford Hall Medical Center. It never surprised me that we have seen the highest survival statistics for those wounded in battle in Operation Iraqi Freedom and Operation Enduring Freedom after having watched those medics caring for our wounded soldiers, marines, airmen and seamen.

So, needless to say, I could not leave the finest group of medics I have ever worked with during this time of war. Also, I could not leave the finest group of patients a medic could ever care for. I remembered watching these young marines, soldiers, airmen, and seamen make life and death decisions on a daily basis. I watched these young heroes achieve amazing

success under the direst circumstances. I envied the incredible brotherhood borne in battle that was unbreakable even in death. I'll never forget the eight dusty, battle-hardened soldiers who stood in a circle holding hands around their brain-dead comrade. After softly reciting the "Our Father" prayer, each soldier gently kissed his friend on the forehead and walked away crying. I will never forget this goodbye.

I told my commander I wanted to stay in the military, and he somehow made my approved separation orders disappear. I could not imagine sitting in a nice office in downtown Denver in my suit and tie while my fellow military medics continue to perform miracles every day. I am truly blessed to be a part of this amazing medical team.^{2(p621-622)}

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