From Baghdad to Bagram

PERSONAL ACCOUNTS OF DEPLOYED GYNECOLOGIC SURGEONS

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Operation Enduring Freedom | 7 October 2001 to 28 December 2014
Operation Iraqi Freedom | 19 March 2003 to 31 August 2010
Operation New Dawn | 1 September 2010 to 15 December 2011

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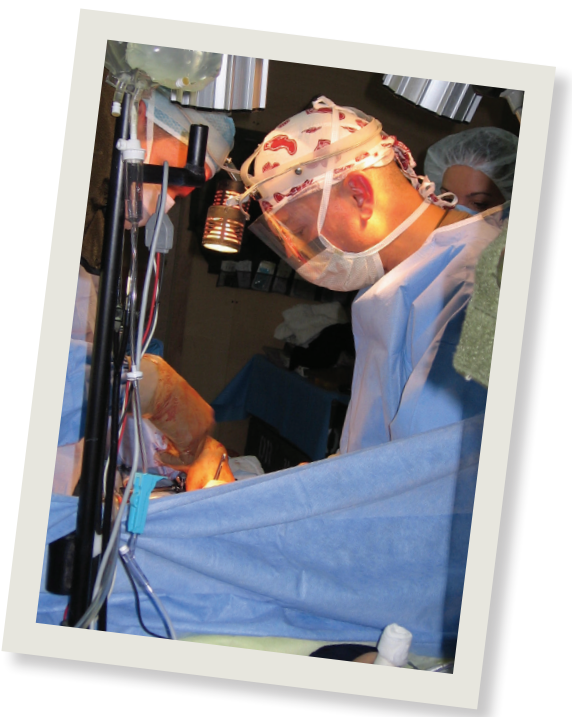

“The role of the gynecologic surgeon . . . was one that was an integral part of the team.”

—LTG RAYMOND S. DINGLE

foreword

THE ROLE OF THE GYNECOLOGIC SURGEON, 60J, during the US military operations in Iraq and Afghanistan (2002 to 2015) was one that was an integral part of the team, albeit a unique role. The 60J had the ability, knowledge, and training to focus on readiness, health, and delivery of care while developing and optimizing their (at times) scarcely available resources. They assumed and performed duties ranging from running sick call in an aid station to first assisting in surgery—and also had the specialized training to specifically take care of women's health matters who were in Theater, whether the women they cared for were serving on Active Duty, contractors, or civilian local nationals.

As you read this book, you will see that the range of abilities of the gynecologic surgeon are vast. I am proud to be the sponsor of this distinctive publication that presents the significant impact they continue to have on the health of our formations in support of our Nation. They were utilized in different missions: from the initial invasion with US Army Cavalry and Marines, which was mainly composed of men, and subsequent nongynecologic trauma cases, to completing strategic humanitarian missions that provided orphaned children with health care, clean water, and electricity. The experiences the gynecologic surgeons gained were valuable. They were given the opportunity to be in a position that might have been out of their comfort zone, and as part of the team they took what they had and made the most of it—all while expanding their medical knowledge in orthopedics, primary care, general surgery, and trauma.

Their experiences provide insight to what their operational functions were during combat operations and can help guide gynecologic surgeons as they develop in an operational environment with dynamic roles, responsibilities, and opportunities. They endured the full spectrum, from not having showers or running water, dealing with the dust, heat, and mud, while sending fallen Soldiers home on Angel Flights, to making lifelong friends, gaining once-in-a lifetime experiences. They are able to say, "I served my country and my fellow Soldiers in austere, extremely dangerous, and stressful environments–and I did something that mattered."

RAYMOND S. DINGLE
Lieutenant General, US Army
The Surgeon General and Commanding General, USAMEDCOM
Washington, DC, March 2022

> “Gynecologic surgeons have demonstrated their courage, compassion, and dedication to the Nation and their fellow Soldiers.”
>
> —Kevin C. Kiley, MD

Colonel Kevin C. Kiley, MD, Commander and Gynecologic Surgeon, 15th Evacuation Hospital, Saudi Arabia (on the Iraqi border), 2001. Photographs courtesy of Kevin C. Kiley, MD.

preface

THE ARMY MEDICAL DEPARTMENT (AMEDD) not only cares for our soldiers and their families in garrison, but also deploys worldwide. This anthology of brief and extensive personal experiences of the US Army's combat gynecologic surgeons (area of concentration 60J) is a moving and graphic representation of our deployed medical force. From the very front lines of combat (from 24-hour periods of continuous mortar attacks to the complex, sophisticated, and strategic hospital operations and support groups), these gynecologic surgeons have demonstrated their courage, compassion, and dedication to the Nation and their fellow Soldiers. Their stories of events (from the mundane to the terrifying), including their multiple deployments, the lessons they learned, and their sense of accomplishment, are described in this riveting anthology. I encourage you to read them all.

My experience while commanding the 15th Evacuation Hospital during Desert Shield/Desert Storm (there were 1,000 admissions and 500 operative procedures during this time) was a proof of concept for the combat gynecologic surgeon as a substitute for general surgeons. Our gynecologists were superb surgeons, and they were integral to the hospital's success. These narratives, both long and short, reinforce the critical value of our gynecologic surgeons in combat. Their deployments were positive experiences, even though they often voiced their concerns over loss of surgical skills—there is some evidence that after being deployed for 6 months surgical skills can attrit. However, my experiences personally and in a leadership role led to the belief that if they returned to supportive organizations and reengaged in clinical work, they would quickly reacquire those skills. What I also found to be true is that if they were good when they deployed, they would be good upon their return. I am very proud of each and every one of these gynecologic surgeons, and congratulate them on their exceptional service.

I am especially proud of Colonel Peter E. Nielsen, MD, US Army (Retired), who is the driving force behind this most important effort. I asked Peter to take the Deputy Commander for Clinical Services assignment in Baghdad for the 86th Combat Support Hospital with essentially no notice. He deployed immediately without hesitation, and his subsequent performance was spectacular in every respect. During his second deployment, he continuously traveled throughout the theater of operations with a significant risk to his life. These deployments lent tremendous credibility to Dr Nielsen's later role as a consultant, in which he selected fellow gynecologists for their deployments (his performance in this regard was equally outstanding). This anthology is a testament to him as well as to all of our gynecologic surgeons who have made the sacrifice and commitment to "deploy the medical force."

The Desert Shield/Desert Storm experience of the 15th Evacuation Hospital preceded 9/11 by a decade, and two decades after that fateful day we are now here specifically reviewing the skills, abilities, and capabilities of both medical units and gynecologic surgeons in this book. Much has changed and much has remained the same over these 30 years. The current diagnostic and therapeutic technologies in the emergency department and operating room are light-years ahead of what our capabilities were in 1991, and training, simulation, testing, lab support, and therapeutics have all evolved tremendously since then. Gynecologic surgeons were also involved in nation-building efforts, theater-wide training, and quality improvement efforts. No facet of medical support operations has remained unchanged except for the unparalleled excellence of our AMEDD soldiers. The bottom line is that the AMEDD continues to excel.

Finally, it is clear that courage, commitment, sacrifice, service, and clinical excellence were not unique to our combat gynecologic surgeons; they were clearly the standard present in all of our medical personnel who deployed. Our entire AMEDD family of soldiers should feel a great sense of pride in all of their efforts to save lives and protect our force. They are all heroes. When you are on the ground in theater looking into the faces of these AMEDD soldiers, there is a sense of wonder about where these men and women come from. The answer I think can be summed up by saying that they are there because that is what America does—it sends its very best.

Keep up the great work!

KEVIN C. KILEY, MD
41st Surgeon General of the US Army

THIS BOOK HAS ONE PURPOSE—to let the world know the role that the United States Army gynecologic surgeons had in support of Army combat operations in Operation Iraqi Freedom (OIF), Operation Enduring Freedom (OEF), and Operation New Dawn (OND) by describing their readiness and operational lessons learned through their own words and experiences. This era in US history now ranks as the longest period of continuous combat conducted by an all-volunteer Army. Within the AMEDD, the roles of many surgical specialties are well defined and align in direct support of the critical care provided on the battlefield. No one wonders if or why a general surgeon is needed on the front lines as a member of a forward surgical team (FST). No one questions why the Army needs orthopedic surgeons in the combat support hospitals (CSHs) and field hospitals (FHs). But what role might the gynecologic surgeon have in support of combat operations?

Because gynecologic surgeons are extensively trained in abdominal and pelvic surgery, their expertise also makes them extremely valuable as a primary surgeon for any injury involving the pelvis and a competent first assistant for any combat surgery. During combat operations, gynecologic surgeons have the capability to serve in more diverse roles than any other medical specialty in the AMEDD. These include gynecologic surgeon, general medical officer, general surgeon substitute, and clinical or administrative leadership roles; however, a majority are deployed in a direct gynecologic surgeon position providing women's health care specialty services at the CSH and FH levels of support. Many have served in a primary care or leadership role as Brigade and Battalion Surgeons operating aid stations in support of sustainment and combat operations. Others have deployed as a general surgeon substitute and helped to increase dwell time (the time between deployments), subsequently reducing the total number of deployments for general surgeons. Because of their skills and proven leadership abilities, a number of gynecologic surgeons have deployed in key clinical leadership positions as either Deputy Commanders or Commanders.

The role of the gynecologic surgeon has evolved and will continue to evolve as a result of our recent efforts in support of OIF, OEF, and OND. This book provides firsthand narrative accounts of their experiences as well as insights into readiness and operational lessons learned.

The book is organized into a general discussion of the role of the gynecologic surgeon in support of combat operations, followed by actual narratives of those who have deployed, detailing where they went, what they did there, and their thoughts and experiences during their deployment. After these narratives is a summary of the lessons learned from their experiences as well as what the future might portend as a result of our experiences from OIF, OEF, and OND. The specific chapters are organized by campaign.

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Gynecologic Surgery and Obstetrics
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JAY CARLSON, DO, COLONEL, USA (RETIRED), and STEPHEN HETZ, MD, COLONEL, USA (RETIRED), for their dedication, commitment, and innovation in ensuring the highest quality downrange surgical care from the beginning of these combat operations.

The principal authors would like to give **special recognition to military spouses,** especially each of their spouses, Cheryl and Babs, for their dedication, commitment, and sacrifice. Your strength and resilience during deployments and separations are an inspiration to us all.

roadmap to deployment

THIS BOOK HIGHLIGHTS THE IMPACT OF GYNECOLOGIC SURGEONS in support of combat operations in Operation Iraqi Freedom (OIF), Operation Enduring Freedom (OEF), and Operation New Dawn (OND). It presents how gynecologic surgeons played a critical role in supporting deployed combat medical and surgical care and medical leadership.

Chapter 1 underscores a significant policy change that shaped the future role of gynecologic surgeons in operational medicine. The substitution criteria codified in 2002 aimed to meet the fast-growing surgical staffing requirements of the combat support hospitals (CSHs) and forward surgical teams (FSTs). At that time, FSTs did not doctrinally include any gynecologic surgeons. Embedding subspecialty-trained gynecologic oncology surgeons in FSTs was an innovative approach, allowing more flexible deployment of general surgeons to include longer dwell times between deployments.

Chapter 2 highlights the numerous contributions that gynecologic surgeons brought to operational medicine. Gynecologic surgeons were among the first surgical specialists to use, and advocate for laparoscopy. Laparotomies are typically large incisions used to enter the abdomen, have been the traditional surgical entry technique used during combat surgical care, and are also extensively performed by gynecologic surgeons. In addition, gynecologic surgical expertise in hemorrhage management ensured they were well equipped for combat casualty care. As the number of women serving in the military increased substantially, the need for deployed surgical gynecologic specialists to treat female service members became apparent.

Chapters 3 through 5 present firsthand accounts (vignettes) from gynecologic surgeons who volunteered to contribute their stories and lessons learned from their deployments. Their accounts of resolve, sacrifice, vulnerability, compassion, and courage are captivating. The stories range from treating mass casualties in low-visibility environments under enemy fire at the front lines to advocating for the timeliness of receiving routine or acute gynecologic care before and during deployment, improving the readiness and health of female soldiers. Their significant capabilities created a new paradigm for what gynecologic surgeons can do on the battlefield.

Finally, chapter 6 summarizes the evidence that gynecologic surgeons can substantially fill many critical roles on the battlefield and how they bring incredible versatility to their assignments. Recent changes to improve deployment requirements and readiness will ensure that the proper team of trained and ready medical professionals is available.

From Baghdad to Bagram

PERSONAL ACCOUNTS OF DEPLOYED GYNECOLOGIC SURGEONS

CHAPTER 1

How the Substitution Criteria Shaped the Role of Gynecologic Surgeons in Operational Medicine

I had been in the hospital on-call all night and awoke on the morning of September 11, 2001, to urgent and tragic news reports playing on the television sets in labor and delivery at Madigan Army Medical Center, Fort Lewis, Washington. The reporters were desperately trying to convey that something appearing to be an airplane had hit the World Trade Center. The world—the Army's world and my world—had completely changed.

“Deploying gynecologic surgeons translated into improved access to experts in women’s health care.”

—**PETER E. NIELSEN, MD**
Colonel, USA (Retired)

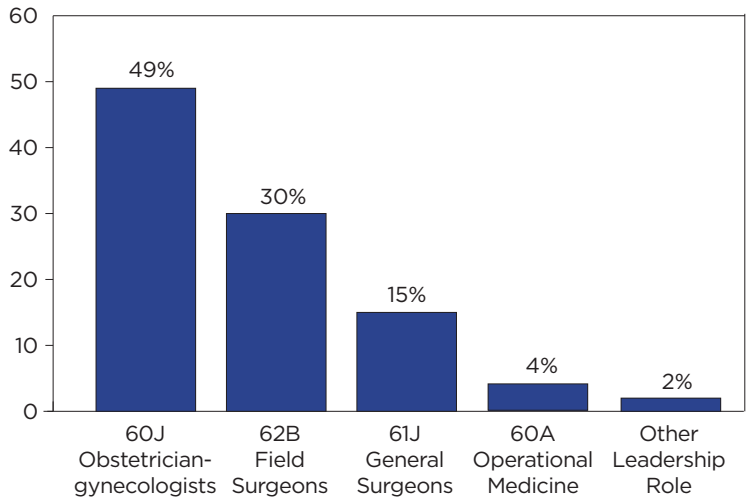
PETER E. NIELSEN, MD, COLONEL, USA (Retired)

As of September 10, 2001, I had already spent 14 years in the US Army. My Army career began in the Cold War era, which allowed me to see the subsequent fall of the entire Eastern Bloc—the former communist states in Eastern and Central Europe. During those first 14 years, the rapid and decisive victory in Operation Desert Storm also took place. All these events resulted in the downsizing of the US Army. However, in the next 14 years, I experienced an Army that grew significantly to meet the demands of repetitive deployments. In addition, I became responsible for making combat assignments for gynecologic surgeons during Operation Enduring Freedom (OEF), Operation Iraqi Freedom (OIF), and Operation New Dawn (OND), and personally deployed twice in support of OIF.

In 2002, the US Army Surgeon General, Lieutenant General (LTG) James Peake, recommended that a variety of surgical specialists should be substitutable for general surgeons in combat support hospitals (CSHs) and in forward surgical teams (FSTs). This strategy aimed to meet the fast-growing surgical staffing requirements of the CSHs and FSTs. Two of LTG Peake's most forward-thinking and innovative surgical consultants, Lieutenant Colonel Jay Carlson and Colonel Stephen Hetz, conceived and proposed this novel surgical specialty substitution strategy. On February 10, 2002, LTG Peake signed a memorandum outlining the substitution criteria for general surgeons in deployed surgical units. The memo stated, "Per Army Regulation (AR) 601-142, 61K Thoracic Surgeons, 61L Plastic Surgeons, and 61W Peripheral Vascular Surgeons who have completed a general surgery residency training program may be 100% substituted for a 61J, General Surgeon on FSTs. 61J General Surgeon requirements may also be filled at a maximum 25% level of replacement by 60J Obstetrician-gynecologists or 60K Urologists if they otherwise meet the qualifications for meeting mission objectives."[1]

In July 2003, LTG Peake selected me as his new gynecologic surgery and obstetrics consultant. My responsibility for the next 12 years, including service to five different US Army Surgeons General, would be providing clinical and policy guidance on all women's health services in the Army Medical Department (AMEDD) and evaluating assignments of gynecologic surgeons to garrison and deploying units. Based on the revised substitution criteria, I assigned gynecologic surgeons to deploy as substitutes for general surgeons in deployed surgical units. Later, further guidance allowed FSTs to replace general surgeons with subspecialty-trained surgeons in gynecologic oncology at a 1:1 ratio.

[Figure 1.1] *Gynecologic surgeons on active duty deployed to US Central Command (CENTCOM) area of operations between January 2002 and January 2015. AOC: area of concentration; 60J: gynecologic surgeon; 62B: general medical officer, brigade, or battalion surgeon; 61J: general surgeon; 60A: leadership position. Data courtesy of Peter E. Nielsen, MD, Colonel, USA (Retired).*

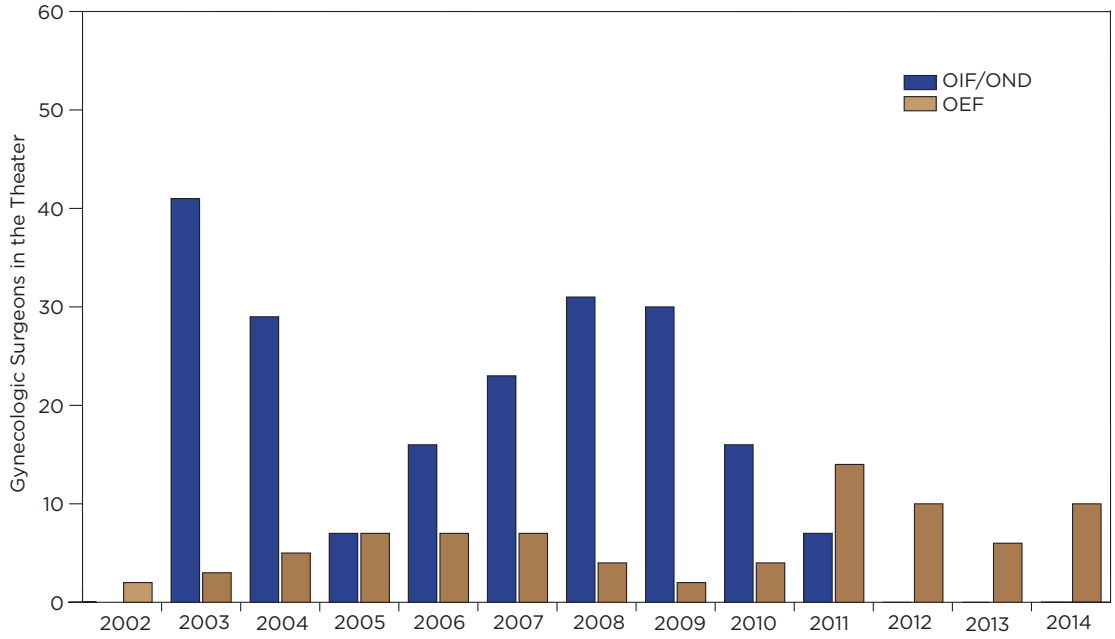


Implementing the substitution criteria allowed general surgeons to deploy less frequently and have a longer dwell time. It also provided skilled abdominal and pelvic surgeons to assist general and orthopedic surgeons with trauma and other surgical cases. Combat support hospitals were already authorized to have two gynecologic surgeons. But with the substitutability rules, CSHs often deployed with three. However, FSTs did not doctrinally include any gynecologic surgeons. Therefore, inserting subspecialty-trained gynecologic oncology surgeons in FSTs was an innovative approach. Since approximately 20% of the US Army is composed of female soldiers, deploying gynecologic surgeons translated into improved access to experts in women's health care, enhanced quality of care, and a reduction in the rate of redeploying female soldiers to receive specialty care.[2]

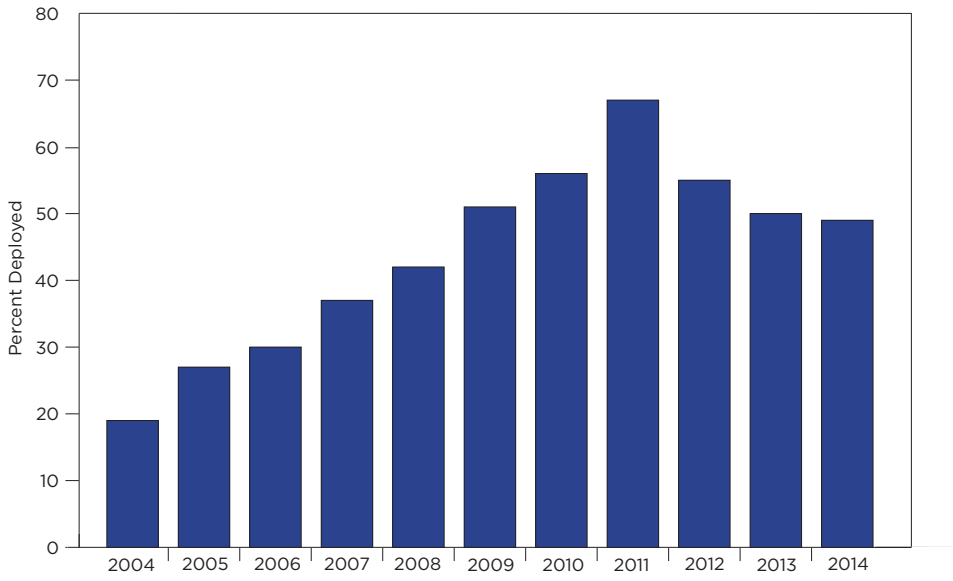
Between January 2002 and January 2015, 310 AMEDD combat deployment requirements assigned to the US Central Command (CENTCOM) area of operations were filled by active duty, reserve, and National Guard Army gynecologic surgeons. The average deployment length was 251 days, and 23 of these individuals deployed twice or more. Gynecologic surgeons were the third most prevalent surgical specialty deployed and the fourth considering general surgeons, orthopedic surgeons, and family medicine physicians. During those 13 years, 151 active-duty surgeons deployed in a gynecologic surgeon position, 93 in brigade and battalion surgeon positions, 47 in a general surgeon position, 13 in an operational medicine role, and 6 in a leadership role such as a deputy commander or commander. Figure 1.1 illustrates these figures in percentages.

The responsibility for combat surgical support by gynecologic surgeons had two peaks between 2002 and 2015; the first was in 2003 and the second in 2008. These peaks correspond to the largest troop

[Figure 1.2] *Deployed gynecologic surgeons between 2002 to 2014. OIF: Operation Iraqi Freedom; OEF: Operation Enduring Freedom; OND: Operation New Dawn. Data: Peter E. Nielsen, MD, Colonel, USA (Retired).*



[Figure 1.3] *Percentage of gynecologic surgeons on active duty who had previously deployed between 2004 and 2014. Data: Peter E. Nielsen, MD, Colonel, USA (Retired).*



deployments associated with the start of OIF (March 2003) and the OIF troop surge from January 2007 through July 2008 (Figure 1.2).

During the subsequent 12 years, more than two-thirds of all gynecologic surgeons on active duty had deployed to a CENTCOM medical unit, peaking in 2011 at 67% (Figure 1.3). The data illustrate the remarkable retention rate of these dedicated surgeons despite the operational tempo and need for recurring combat deployments.

In 1989, the US Army had difficulty staffing its major medical centers and smaller community hospitals with physicians in specialties such as pediatrics, family medicine, obstetrics, and gynecology. At many posts, the Army contracted civilian physicians or relied on civilian health care professionals to work alongside military physicians. However, this had a depressing effect on the morale of military physicians. LTG Frank F. Ledford, Jr, the 37th Surgeon General of the US Army, noted that family medical specialties were essential for maintaining a high quality of life for soldiers, specifically female soldiers, and their families. LTG Ledford also believed that the medical and surgical skills of such practitioners would be significant in wartime. In his comments, he deftly noted, "Obstetricians were expert abdominal surgeons, and general practitioners and pediatricians were versed in treating diseases, internal medicines, epidemiology, and related fields."[3]

Between 1973 (when the military conscription ended and the all-volunteer force took place) and 2010, the number of women serving in the military rose substantially. There was a sevenfold increase in the enlisted ranks (from 2% to 14%) and a fourfold increase in the officer ranks (from 4% to 16%).[4] Opportunities for women to serve have only increased since each service fully integrated women into all occupational specialties.

As the number of women serving in the military increases, the need for physicians specializing in their care also increases. Approximately 40% of all admissions to US Army military medical treatment facilities are currently related to specialty care for women. The significant role of gynecologic surgeons and obstetricians who care for women while in garrison is clear, and the need for women's health care surgical specialists to deploy in support of female soldiers is becoming even more evident. In a 2011 report by the Army Surgeon General's Women's Health Assessment Team, nearly 275,000 women had deployed in support of OIF, OEF, or OND. Their significant roles included female engagement and reconstruction teams, police, transportation, engineering, and health service support roles. Women serving in these roles and the current expanded combat roles will continue to place these soldiers at risk of illness and combat injury.[5]

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CHAPTER 2

Role of the Gynecologic Surgeon in Army Medicine and in Support of Combat Operations

“Gynecologic surgeons are deftly skilled to competently assist other surgeons downrange.”

—**PETER E. NIELSEN, MD**
Colonel, USA (Retired)

PETER E. NIELSEN, MD, COLONEL, USA (Retired)

As mentioned in Chapter 1, the US Army Surgeon General Lieutenant General Frank Ledford noted in 1989 that gynecologic surgeons and obstetricians were essential for maintaining a high quality of life for soldiers and their families and their surgical skills would contribute significantly in wartime. Less than two years later, Operation DESERT SHIELD and Operation DESERT STORM would commence and one of the most senior Army gynecologic surgeons, Colonel Kevin C. Kiley, MD, would command an evacuation hospital in support of these military operations. It became clear from the success of the overall military medical support system and the extensive use of gynecologic surgeons in combat hospitals during these conflicts that they were essential in supporting not only family members at home but also combat-deployed soldiers.

Because the garrison's inpatient health care volume is mostly maternity care, the role of gynecologic surgeons is almost exclusively associated with delivering babies; therefore, these surgeons' capabilities are minimized or largely invisible. Gynecologic surgeons' capabilities are not limited to managing normal and high-risk pregnancies only; they spend four years of residency after medical school learning to perform complex abdominal and pelvic surgeries. This surgical training includes both laparoscopy and open procedures, or laparotomies.

Gynecologic surgeons are experts at performing laparotomies (larger incisions to enter the abdomen) since they perform the most common major surgery in the world (cesarean delivery) through this incision. And, since laparotomies are the exclusive surgical entry technique used during combat surgical care, gynecologic surgeons are deftly skilled to assist other surgeons with these procedures downrange.[1]

Gynecologic surgeons were among the first surgical specialists to use, perfect, and advocate for laparoscopy. In 1998, Dr Hans Troidl delivered a presidential address at the International Congress on Surgical Endoscopy, Ultrasound, and Interventional Techniques in Berlin, Germany. He advocated for the broader use of laparoscopy in other surgical specialties. He believed that laparoscopy, used effectively by gynecologists, had been almost neglected by surgeons. Dr Troidl expressed concern about the underutilization of this technology. He said, "This procedure has, in fact, revolutionized the science of gynecology. The degree to which we, as surgeons, ignore this sophisticated technology and refuse to test its suitability for surgical application is astonishing."[2] Since then, laparoscopy has expanded to almost all surgical specialties, resulting in enormous progress in this technology (including robotic surgical capability).

Hemorrhage management is also a mainstay of the gynecologic surgeon and obstetrician clinical skills since managing and treating obstetric hemorrhage is frequently encountered in clinical practice.[3–5] Due to their extensive gynecologic and obstetric surgical training, and their daily medical and surgical care of patients in garrison hospitals, gynecologic surgeons make for an ideal team member to augment the combat surgical team.

After September 11, 2001, the number of female service members increased substantially. Their subsequent integration into military occupational specialties for which they qualify led to an expanded need for gynecologic surgeons and provided more opportunities for these surgeons to serve in combat and as senior leaders. It also influenced the military to develop the Joint Force Combat Trauma Management Course and establish the Army Trauma Training Center in Miami, Florida. Gynecologic surgeons engage in these training programs before deployment.

Since 2002, more than 300 US Army gynecologic surgeons have deployed to combat. In particular, over 40 gynecologic surgeons served in leadership roles as commanders or deputy commanders; two of them rose to the rank of general officer—Kevin Kiley, MD, and Carla Hawley-Bowland, MD (who served as the first female Medical Corps officer). The service of these gynecologic surgeons is critical. Since 2002, more than 300,000 women have deployed into combat; over 100 of these women lost their lives, and another 1,000 were wounded.

The following correspondence from Colonel Tommy Brown, General Surgery Consultant to The Surgeon General (2013–2015), highlights the importance of the gynecologic surgeon during a deployment:

> Gynecologic surgeons have played an integral role in combat operations over the last 12 years of conflict. They have deployed in the role of a general surgeon, both in the combat support hospital and forward surgical team levels, at defined substitution levels. They performed exceedingly well during deployment both as primary surgeons and assistants to the general surgeons. I have personally worked with multiple gynecologic surgeons during deployment and found their care to be excellent and lifesaving.
>
> I have been deploying general surgeons and subspecialists to combat operations for the last five years, and the success in saving soldiers has been outstanding—in fact, the best in history.

I am indebted to the highly skilled, motivated, and brave surgical colleagues I served alongside, who see our surgical specialty as an added value to their success in combat casualty care. However, the concern remains that there may not be enough general surgeons on active duty or the reserves to provide the downrange resuscitative surgical care required for sustained operations.

Collaborative practice and team-based care have been and always will be a core value of military medicine. The need to ensure continued and robust team-based care will be critical to the future success of the Army Medical Department for the optimal care of casualties on the next battlefield.

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CHAPTER 3

Deployments During Operation Iraqi Freedom

The following accounts are from US Army gynecologic surgeons who deployed in support of Operation Iraqi Freedom. Operation Iraqi Freedom began on 19 March 2003, and ended on 31 August 2010. In these accounts, the surgeons share their unique personal experiences, operational challenges, lessons learned, as well as numerous other highs and lows encountered while providing combat combat casualty care downrange.

“Are you ready to make history? . . . Good, because you are about to make history.”

—**LTC TERRY FERRELL**
Commander, 3/7 CAV, 3ID

[Figure 3.1]
Major Todd Albright, DO, in Iraq, 2003.
Photograph courtesy of Major Todd Albright, DO.

MAJOR TODD S. ALBRIGHT, DO, MPH

Major Todd S. Albright, DO, MPH (Figure 3.1), served as flight surgeon and senior surgeon, 3rd Squadron, 7th Armored Cavalry Regiment, 3rd Infantry Division (lead element, Iraqi invasion), during Operation Iraqi Freedom from January 2003 to June 2003.

Unit and Operational Background

3rd Squadron, 7th Armored Cavalry Regiment, 3rd Infantry Division

Predeployment. I was serving as a gynecologic surgeon and obstetrician at Winn Army Community Hospital at Fort Stewart, Georgia. I had seen other physicians being deployed and knew it was probably just a matter of time before I deployed as well . . . then the day came. I received a call from a first lieutenant saying that I was going to be his doctor for the 3/7 Cavalry (CAV), 3rd Infantry Division (3ID). That didn't sound like a combat support hospital (CSH) to me—and then something quickly dawned on me: that's the unit I went to the National Training Center (NTC) with about 6 months prior. Initially, there was a family medicine physician that was assigned to the NTC mission with this battalion. However, he was unable to attend this training, and as one of two flight surgeons at Winn Army Community Hospital, I was selected to fill in for the NTC mission. While there, the unit performed really well. I then asked the first lieutenant, "Wait a minute, didn't you get a replacement for the family medicine physician?" He said no, and told me that the physician was still not deployable and I was now their doc. I then met with the battalion commander Lieutenant Colonel (LTC) Terry Ferrell (now Lieutenant General Terry Ferrell), who informed me that we were leaving for the deployment in 3 weeks. That was hard news to take because my wife had just delivered our second child a little over 4 months prior.

I reported to LTC Ferrell's office, and I was immediately struck by how tall he was—6'5" with a size 15 boot. The first words out of his mouth were "Are you ready to make history?" I reluctantly nodded, not truly knowing what he was talking about. He asked, "Are you that gynecologist that went with us to NTC?" I said, "Yes, sir." He replied, "Dang, didn't think that was such a good idea when I found out, but you did a good job at NTC. Do you think you are ready for this?" I said, "I think so," and then he said, "Good, because you are about to make history."

I left with his words "about to make history" in my mind. What was he talking about? Do all commanders talk this way? I really did not have any prior experience with an Army ground combat unit. My only other experience was as a flight surgeon in Korea, where I was in charge of my own Army health clinic at Camp Long, just outside the Republic of Korea headquarters in Wonju, Korea. The only units there were an attack helicopter unit (located a couple miles away at Camp Eagle) and a signal (communications) unit; there weren't any ground units. I never interacted with LTC Ferrell at NTC. I looked up the 7th CAV, and I was amazed at what I found. The 7th CAV was General Custer's unit, and it was also the CAV unit in the book and movie *We Were Soldiers*. I immediately felt sick to my stomach because the history of both of those units was that they were surrounded by enemies in combat and suffered high casualties.

The day we deployed was a typical day. I stayed with my family as long as I could. We parted out of sight of everyone else because I knew I would cry—and I did once my wife and children drove away. I then walked back to join the rest of the unit, and we left for the airport on buses. As one of only four majors in the squadron, I traveled to Kuwait in business class, which was located above the main compartment. It was the last bit of creature comfort I would enjoy until I returned home from the war.

[Figure 3.2]
V Corps and I Marine Expeditionary Force maneuver to Baghdad. Reproduced from Fontenot G, Degen EJ, Tohn D, and the United States Army Operation Iraqi Freedom Study Group. The March Up-Country. On Point: The United States Army in Operation Iraqi Freedom. *Combat Studies Institute Press; 2004:144.*

Kuwait. We were supposed to be the scouts for 3ID, an armored cavalry regiment with A1 Abrams tanks, Bradley fighting vehicles, and 16 OH-58 Kiowa helicopters. However, our mission changed once we arrived in Kuwait; we became a task force and took on several other elements (combat engineers and field artillery). Our mission was to be the lead element of the 3ID and secure several key bridges so that the 3ID could set up in the Karbala Gap before invading Baghdad. Once this mission was accomplished, we were to execute a feint, acting like we were going straight up the middle of their Medina Division while 3ID circled around via the Karbala Gap and moved in from the south (Figure 3.2).

We were the first to arrive in Kuwait during the buildup of US forces. We moved to our staging area and crossed the border as the lead element for the invasion into Iraq. As a gynecologic surgeon, I never thought I would have the experience of invading a country; I always thought that I would be utilized in

a CSH. We led the way because we were scouts. We had such superior firepower that we easily traversed our route until we arrived at the town of Al Faisaliah. We then set up at a Baath Party housing complex near one of the palaces close to the Baghdad airport.

I don't recall how long we were on the main post before going to our outpost once we arrived in Kuwait. I do remember that it was January, cold, and raining on the day we were to go to our assigned outpost in the sand—as I was standing in formation in the rain and freezing. We were then served a bowl of hot soup and boarded the buses that were going to take us to our post.

The bus trip was miserably long. They were not stopping for restroom breaks, and my bladder was full. The pain progressed as I continued to hold it, and I wasn't the only one suffering. Finally, someone started passing around an empty 1-liter soft drink bottle and people were urinating in it and pouring it out the window. I didn't hesitate when the bottle came to me; I almost filled it up and then I poured it out the window like everyone else had done before me. About 30 minutes later, all of the buses finally stopped and let everyone out to use the bathroom. (I'm not sure I could have made it.)

We were one of the first units to arrive at the post. It was a square built in the desert, surrounded by a 2.5-meter sand berm. The only people that I recall being there before us were the soldiers guarding the gate and the cooks—who had already set up a chow tent. That night we ate and then settled in. I chose to stay with my medics. (I was one of the only two officers to do that. All of the others were together in an officers' tent with the battalion commander and executive officer. The OH-58 pilots had their own tent as well.) In hindsight, it was the right decision to stay with my guys, as people sought them out constantly. There were too many issues that they needed to consult me on; it would have been awkward for them and may have even been prohibitive, which could compromise care if they always had to come and get me in the officers' tent. I would stay with my medics again if I deployed in this type of setting.

Camp Udari. What I remember the most about being at Camp Udari was how cold it was in the desert in January. The temperatures were always somewhere in the 40–50 °F range. Our unit brought generators for the tents, but they left out one important detail—they forgot to bring the wires to plug the heaters in. So we basically stayed cold the entire time and never escaped it. It was miserable. I organized some training for the medics while at Camp Udari. My main focus was for all of the medics to be familiar with what we had in our medical sets and how to find them quickly. While at NTC I had learned that finding something quickly in the medical sets was not an easy task. We were presented with a soldier having a serious asthma attack, and nobody could find the injectable methylprednisolone sodium succinate formulation. We finally found it after about 10 minutes, but that was way too long for NTC; it could have been deadly during war. We drilled scenarios with the sets more than anything, and we also practiced how to set up in preparation for the event of a nuclear/biological/chemical attack.

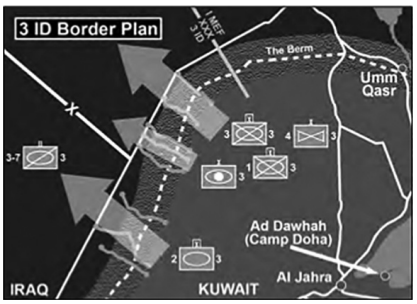
As time went on, more and more units arrived at Camp Udari (and it had even been paved for the helicopters). Finally, a CSH arrived, and I could relax knowing that any major trauma care would be available in only minutes. After training up my medics, I was free to do other things, so I helped a Federal Bureau of Investigation unit train for a nuclear/biological/chemical attack. They arrived without some of the medications needed to treat injuries from such an attack, and we had it in excess; I gave them some and they were extremely appreciative. I later received a formal letter of thanks from the Federal Bureau of Investigation for my help.

One of my jobs at Camp Udari was to update all of the soldiers' vaccinations. The smallpox vaccine was a critical one and in short supply. We had to execute this vaccination mission quickly as we would soon be leaving to go to our staging area. All 900 soldiers in the battalion were subsequently vaccinated, and I thought the mission was accomplished—until the unit ballooned to 2,000 soldiers when we became a task force. Suddenly, a large number of soldiers needed vaccines and we did not have enough. The day before we were to assemble at the staging area, I still had about 70 soldiers who needed to be vaccinated. I went to the CSH, and after some negotiating with the pharmacist, I arranged to have enough vaccines for all of our soldiers. We got what we needed, and I was a success in my commander's eyes. That night we were served steak for dinner, and we prepared to leave for the staging area.

Staging Area. The movement to the staging area on the Kuwait–Iraq border was memorable. It was not long before we were all blinded by the dust that was being kicked up from the desert floor by our vehicles. And it was not long before the accidents started happening; we started seeing bumps, cuts, and bruises. We were in our staging area for about 11 days, where we finalized our preparations for going to war. One of the things I recall during that time was learning how to cut hair. We no longer had access to barbers or showers, so I was pretty miserable. I've always tended to have long hair on top. The problem with having long hair on top without a regular shower and while having to wear a helmet is that my hair would get matted and start to pull—adding to my misery. I finally started cutting my hair shorter and learned why soldiers were buzzing their heads when arriving there.

An incident occurred while we were at staging that showed my inexperience. I was sure that I smelled steak, and I commented to my crew that I smelled steak and that it looked like we are going to war tomorrow. They laughed at me, knowing that it wasn't steak at all; it was the guys burning the stool from the portable toilets. I am still amazed by how much it smelled like steak, and I am glad to know that my comments broke some of the tension that we were all feeling.

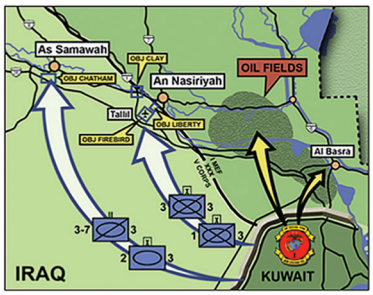
Breaching the Border. We were joined by some news crews on the day we left to cross the border into Iraq (Figure 3.3). We were the lead element for the 3ID and being the "tip of the spear" attracted many journalists and photographers. As evening approached, an armor unit punctured the berm



[Figure 3.3]
3rd Infantry Division border breach scheme of maneuver. Reproduced from Fontenot G, Degen EJ, Tohn D, and the United States Army Operation Iraqi Freedom Study Group. The Running Start. On Point: The United States Army in Operation Iraqi Freedom. *Combat Studies Institute Press; 2004:106.*

separating Kuwait and Iraq, and the Iraqis responded by firing missiles across the border at us. Just as we were going over the border, a large missile hit very close to us. It shook the ground, and I could feel its power while sitting inside my M577, a tracked and armored command post vehicle. Staff Sergeant Cosner, "Cos," was our platoon sergeant and the tactical commander (TC) for our M577. Once the missile hit, he pulled back into the vehicle where my physician assistant (PA) Captain Jeff Morgan and I were sitting. He yelled, "They are trying to kill us!" I was already shaken and rocking back and forth by the large impact of the missile that had just landed near us. I remember thinking, "I don't want to get hurt," as I looked at my hands and fingers because they were the only exposed part of my skin that I could see. At that time, I didn't realize what was happening to me. But after deployment, this moment came to mean a lot more. I was experiencing a true fear that I had never felt before in my life. It seemed like it lasted about 15 to 20 minutes, but after about 2 hours of driving, my fear was completely gone.

Driving to Our First Objective. I listened to the command net and learned of all the targets our unit were acquiring. Interestingly, many had been hit by the wave of bombing that occurred before we crossed the border. From what I recall, our first kill as a unit was a pack of camels (they came off as heat signatures very near a defense artillery system that had either been hit already or abandoned). I listened carefully as they did the battle damage assessment following the engagement. The report came back saying, "A lot of dead camels," which made me relax a little more. We then proceeded to drive all night, the entire next day, and into the following night (minus stopping for fuel at times). We had some small skirmishes on the way, but for the most part we were deep into Iraq and did not see much. Cos generally did most of the TC duties, but he couldn't tolerate the night vision goggles very well. He would get sick and throw up as we drove at night, so for the most part either Captain Morgan or I would act as the TC at night. I have to give credit to our 18-year-old driver, "Pooky," as we called him. He drove for 36 hours on maybe 2 hours of sleep. When he did sleep, he could do so while sitting up in the chair. If I was not flat, I was not sleeping, and it was very hard to get flat in the M577. But Cos had a fix for that; he knew how to string the cots up sideways in the M577. Unlike the M113 armored personnel carrier, which had four cots for transport, the M577 had no patient transport capabilities as it held the sets, kits, and outfits. Thus, lying flat was generally difficult—so I have to give Cos some credit for his ingenuity.

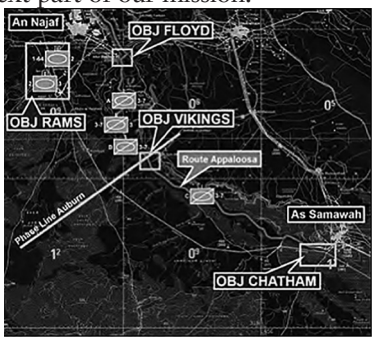


[Figure 3.4]
3rd Infantry Division attack, 20-23 March 2003. Reproduced from Fontenot G, Degen EJ, Tohn D, and the United States Army Operation Iraqi Freedom Study Group. The Running Start. On Point: The United States Army in Operation Iraqi Freedom. *Combat Studies Institute Press; 2004:87.*

3ID Attack. Finally, we arrived at one of our objectives outside of As Samawah (Figure 3.4). We were positioned just outside of a junkyard when, out of nowhere, the Iraqis started shelling a unit just on the other side of the bridge from us. We received the call saying there were some casualties among a reserve unit of combat engineers that had been behind us, and we were given permission to go help them. We arrived to find that one person expired due to severe chest trauma. There were some other minor injuries, and an older first sergeant (who appeared to be having a heart attack, since he had been running up and down the columns checking on his soldiers) was brought to us for treatment. We started an IV and gave him some fluids, aspirin, and morphine before being relieved by the first sergeant's unit medical provider. We attempted to return to our unit in our M577, along with a Bradley fighting vehicle who was escorting us—and we got lost. As we were approaching our unit, the Bradley vehicle stopped short all of a sudden. After waiting for about 15 minutes, we got out to see what was going on. We had somehow managed to go down a narrow path that was completely surrounded by a large, deep sink hole. I felt an eerie feeling as we slowly backed out, but we managed it and then joined our unit as it prepared for the next part of our mission.

Running the Gauntlet. At night we began moving again. As I've learned, we rule the night against most enemies, so we travel at night. In this case, we were traveling single file on an elevated road from As Samawah to Al Faisaliah (Figure 3.5).

We traveled with the Apache and Bone Troops in front of us (we were part of the Combat Trains Command Post and the main aid station), followed by the Crazy Horse Troop. The rest were with combat support, with the forward aid station in the rear because their M577 had a mechanical failure shortly after departure. The area was mostly made of farming communities with irrigation and required an elevated road to get around. As such, the entire unit traveled in a single file line. This provided the enemy with a great opportunity. They were set up all along this road on each side in bunkers and fired at us almost the entire trip. I was amazed that 40% of our vehicles had soft tops (they were not armored); what's more amazing is that



[Figure 3.5]
"Running the Gauntlet." Route: Appaloosa from As Samawah to An Najaf. Reproduced from Fontenot G, Degen EJ, Tohn D, and the United States Army Operation Iraqi Freedom Study Group. The March Up-Country. On Point: The United States Army in Operation Iraqi Freedom. *Combat Studies Institute Press; 2004:169.*

no one died. We weren't much different than the game that has the ducks lined up single file that you shoot at for prizes at the carnival. The one big difference is we were shooting back with superior fire power. Nonetheless, this went on all night. Of the 11 medical vehicles I had in the unit, seven sustained damage, and both of my field ambulances were lost. The first vehicle to receive damage was the M113 behind me. I was listening on our net when the TC said a bullet just hit right next to his head. I have a picture of him pointing to the tin exhaust that is right next to his head. The second vehicle damaged was one of our two field ambulances. A mortar came down on the road and exploded just as they drove over it. It hit the engine block and sent the two medics inside flying out both of the doors and then landing on the road. Since the area was under fire, one of our M113s provided cover from the AK47 (Avtomat Kalashnikova) rifle fire as the two medics sought shelter in another vehicle. The driver of this M113 (one of our medics) received a Bronze Star Medal with "V" device for his actions. The third vehicle to sustain damage was our platoon leader's high mobility multipurpose wheeled vehicle (HMMVV, or Humvee). It was hit in the rear quarter panel by a rocket-propelled grenade. That Humvee was right in front of us, and our driver ducked as some of the debris from the Humvee flew onto our M577. We then lost our second field ambulance after an explosion that occurred in one of the bunkers temporarily blinded the driver (because he was wearing night vision goggles) and it rolled off the elevated road. The soldiers in the ambulance were fine and received a ride in one of the M113s.

As the firefights continued into the night, there were many bunkers burning. We had an M1A1 Abrams tank in each of the three troops that made up the battalion. They were knocking out bunkers and were the main fire power for many of our battles. But in that environment, the Bradley fighting vehicles ruled. They were more mobile and traveled up and down the line to provide all of us with a great deal of protection. However, our task force was spread out for miles, and there were many breaks in the line due to all of the fighting. As I rode in the M577, I heard a lot of battle. I heard the loud smacks as bullets hit the side of our M577, and I heard the exploding bunkers as they were being taken out. At one point, we were suddenly stopped due to a firefight, and we started taking a lot of fire from the left side. At most risk was the platoon leader's Humvee located directly in front of us. He and his driver, Private First Class Dwyer, were in a soft-top Humvee. Cos started firing back from the TC position on our M577. Shortly after that, the shooting stopped; it appeared that Cos hit the shooter. Even if he had not, his return fire likely saved the platoon leader and his driver in their soft-top Humvee. We sat for another couple of minutes before moving without another shot from this location. Staff Sergeant Cosner received a Bronze Star with "V" device for his actions during the firefight.

As we continued down the elevated road, an explosion caused our M577 to veer to the left and start falling off the elevated road. It stopped suddenly at a lean. I was listening to the net, and I had heard our platoon leader tell the others to "not worry about them [us], that they [we] will be picked up by the rear." I couldn't quite believe what I was hearing because that was not how it worked. We were told prior to the

start of this mission that if any vehicle was damaged and could not go on, then we were to leave it so that it could be picked up by the traveling support in the rear. Missing from his understanding was that you were not supposed to leave your soldiers behind—but that is exactly what our platoon leader did. He was in front of us, and the M113 that was behind us continued around our stuck vehicle. Cos got out of the top of the M577 and walked around. After several minutes, he opened our door in the rear. We stepped out . . . and I couldn't believe what I saw. Our M577 was stuck leaning on the left side of the road with the right side tracks up in the air. And even more amazing was that no one else was around. We were abandoned there with a bunker burning only about 45 meters from us. Evidently, we were in the very back of the group, with a break in our part of the line. So, we decided to each take up a position at the corners of the M577 until someone came down the road to bail us out. There I sat with my 9 mm drawn and waiting. After about 10 minutes, Private Pooky yelled that he could see two people running up from the front of our vehicle. We all came to his position and did see the two figures running our way, but they were silhouetted by the fire from the burning bunker behind them. We figured that they were our soldiers, but we weren't sure, so we kept our weapons drawn on them.

Just as they arrived, one of the soldiers tripped and we heard the fire of a round from one of the weapons. We all looked at each other asking, "Who just pulled the trigger?" It was the soldier that tripped as he approached us who had accidentally fired off a round. He was completely exhausted after running up to us. They had rolled their Humvee ahead of us and were running back toward the column to get a ride. Eventually, our unit arrived at our location. In front were some M113 mortar carriers who easily pulled us out of our situation—the same type of vehicle that went around us per the order of the platoon leader. I was very angry, but understood, as the platoon leader was definitely shaken after the rocket-propelled grenade hit his vehicle—and the same went for the medic in the M113 behind us, as a bullet had whizzed by his head. Cos had his camera on top of the M577 filming much of this firefight as we drove. Later, we watched the video and could see where the M577 leaned over and was then uprighted. In all, it seemed like we were stranded for only about 15 minutes, but it was a total of 47 minutes. All of our vehicles had been hit by bullets, and most of us had bullets in our duffle bags (which were on top of the vehicles).

Private First Class Joseph Dwyer. As morning came, we stopped just outside the town of Al Faisaliah, where another firefight was occurring. It was not long after the firing stopped that we were summoned to an area to help a family that had been injured from the fighting. We arrived at the meeting point and started setting up to receive casualties. As we started, I could see a family hobbling toward us far off in the distance. I saw Private First Class (PFC) Joseph Dwyer standing nearby when I turned around to find someone to send out to help them. (When we were in the staging area, we had been waiting to receive some new medics, fresh out of advanced individual training. However, out of the six that we were supposed to receive, only PFC Dwyer made the bus. Because he had not yet trained with the unit, he became the platoon leader's driver.) PFC Dwyer was new to our unit, so he did not have a clear

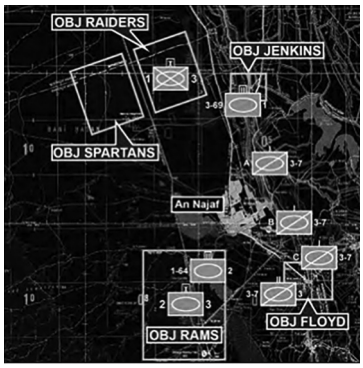
role in the setup. At this moment he had absolutely no role, so I told him to go help that family. As he started to leave, Cos yelled, "Stop!" because he needed escorts to go with him.

As the group approached, one of the family members was carrying a boy, and handed him to PFC Dwyer. As he turned to walk toward us, a Gannett photographer took a photo of him carrying the little boy, and that picture would become one of the first icons of the war. PFC Dwyer put the boy on the cot and I began to treat him. He had a piece of shrapnel still lodged into his leg that was about the size of a quarter, and it had completely shattered the left tibia. I removed the shrapnel, tied off one of the arteries, cleaned the wound with saline, and bandaged it. I then treated his teenage brother, who had been hit in the forearm with a round. His mother was about 28 weeks pregnant and had been hit in the leg with a round. We cleaned and dressed their wounds. The father had also been severely injured in the firefight, which left one of his feet just dangling. It was mangled badly and had bones sticking out of several places in the skin, and I was pretty sure he was going to lose his foot.

I can still see the stare I was getting from him; he looked at me with hate. Despite treating him and his family, he obviously saw me as the enemy who had inflicted this pain upon them. I realized I was the only one not wearing body armor or a helmet, since I had taken them off so I would not be restricted while treating them. It was at that moment when I realized he very well could have killed me if he had a weapon; I was completely unprotected. From that point on, I wore my armor and helmet while treating casualties.

Following the scenario with the family, the Gannett reporter took down our names. The reporter had several pictures of the scenario, but it was PFC Dwyer's photo that became so popular. (Initially, they said his name was Dewitt, but later versions show it correctly as Dwyer.) He received a lot of criticism from the other medics for it, but not initially. The criticism occurred after his picture hit the newsstands in the United States, and the journalists began searching him out. We were in the middle of a war and journalists were seeking out PFC Dwyer to get his interview. They were handing him satellite phones and he was able to talk to his family, which made all the soldiers jealous because everyone was longing to speak with their families. He was fresh out of advanced initial training, had not trained with the unit, and was receiving all this attention—and he did not even treat the child. Some of the younger medics did not know how to handle it and took it out on him. I called a meeting with all the medics, discussed the situation, and told them that it had to stop. It eventually died down significantly, and we were able to concentrate on our next mission: An Najaf.

Unfortunately, PFC Dwyer had problems with posttraumatic stress when he returned home. While in El Paso, Texas, he barricaded himself in his apartment and fired shots at police. He surrendered and received counseling. He later separated from the Army and eventually committed suicide. Sadly, he left a wife and a young child behind.



[Figure 3.6]
Force disposition around An Najaf, 25 March 2003. Reproduced from Fontenot G, Degen EJ, Tohn D, and the United States Army Operation Iraqi Freedom Study Group. The March Up-Country. On Point: The United States Army in Operation Iraqi Freedom. *Combat Studies Institute Press; 2004:204.*

An Najaf and the Feint. We set up outside of the town of An Najaf (Figure 3.6). Battles were constant. One of our troops, the Crazy Horse Troop, was guarding us on our rear, and they were in constant battle the entire time—which went on as we prepared for the feint.

The Feint. We were getting ready for battle as the evening drew near and a sandstorm blew in, greatly compromising our visibility. We were still set to go, and we pushed forward to face the Medina Division as planned. Bone Troop led the attack this time; Crazy Horse and Apache Troops both successfully completed their missions and now it was Bone Troop's turn. As usual, the local taxis were passing us as we moved forward. (I had noticed them doing this every time we moved; however, I was surprised to see them pass us in such a bad sandstorm.) It was pretty obvious they were warning the Iraqis and giving away our position.

It was not long into this mission before I heard the first reports coming in over the command net: one of our M1A1 Abrams tanks had been hit and was in flames. Due to the bad sandstorm, the infrared system couldn't be used, and the enemy units were able to hide. As our tanks rolled by, the enemy fired at them from the rear. (It was unclear what type of weapons they used.) We sat and listened as the battalion commander, LTC Ferrell, repeatedly asked for confirmation of whether there were soldiers in the tank. The report came back stating that they were still inside the tank and waiting for the rounds to be spent from the blow-off panels. (The blow-off panels worked by venting the flames from the ammunition propellant upward and out of the crew compartment. A tank will look like a roman candle while this is occurring, and it is safer inside the tank than outside of it.)

Eventually, a report came back stating that all the soldiers were able to get out once all the rounds had gone off. It was also reported that they had suffered from inhalation injuries and were going to come back for medical treatment as soon as they could. In the meantime, we were being maneuvered to meet the casualties. While that was occurring, another M1A1 Abrams was hit and also caught on fire; fortunately, the soldiers in the hit M1A1 were out before the ammo was spent. Then, a Bradley was hit and disabled. I was definitely nervous, as the casualties were adding up. I had no idea of their status and no way to evacuate them while in the heat of battle—and in a massive sandstorm. Cos was no longer able to TC at night with the night vision goggles, and it was my turn to TC. It was really tough to see the Bradley vehicle that was escorting us to the meeting point, and I had to get out of the M577 twice to see where

the Bradley was. We could talk to them, but not see them. That was scary because as I found myself running around out in the battlefield, I didn't know if (1) I was going to lose sight of the M577, (2) I was going to get shot by the enemy, or (3) I was going to get shot by the soldier who was outside the Bradley looking for us.

We finally made it to the meeting point, and shortly after that the first four M1A1 Abrams casualties arrived. They all had severe inhalation injuries; they were using their respirators for extended periods of time in the tank while the rounds were being spent. I put oxygen masks on them, and they quickly went through the bottles of oxygen. We went on the net and asked for the M113s that were with each of the troops to get their oxygen tanks to us because we were going to need them. The soldiers with inhalation injuries were using the oxygen quickly—and we still had more casualties coming in. The feint had been abandoned for the night at that point, so acquiring oxygen was a priority and an acceptable risk. (And the rumor was that we would be heading to the Karbala Gap to refit.) The four other tank crew troops did not require oxygen, and I was able to wean two of the four who did need oxygen off it as the night progressed. The other two soldiers who had severe inhalation injuries remained on oxygen throughout the night.

It was absolutely eerie that night, as the sandstorm was relentlessly pounding us as I was trying to treat our soldiers just outside of the M577. I walked what only seemed like a couple of meters away to relieve myself, and I became completely disoriented (and lost) because of the lack of visibility from the sandstorm. I was afraid to yell because I had no idea how close the enemy was, but I also could not afford to go searching and get further lost. I decided to yell, and Captain Morgan yelled back, which allowed me to guide myself back to the M577 safely. As dawn approached, the two remaining soldiers were doing better; I had them in an M113 and was ready to transport them after the sandstorm died down.

> "I don't like to say we were surrounded, but we were being fired at from all directions."
>
> Captain Jeffrey McCoy, Commander, C/3-7 CAV commenting on fighting at An Najaf[1]

Surrounded. When the sandstorm lifted, the infrared on the M1A1 Abrams could finally see much farther—that's when we realized we were completely surrounded. I heard this over the command net, and I couldn't believe it. The Custer curse had come true. The enemy was within one kilometer in front of us and located on both sides of us (even in range for their tanks). We were blocked by the town of An Najaf in the rear, where the enemy had been engaging the Crazy Horse Troop constantly and continued to increase in force. LTC Ferrell called for close air support. We could hear the distinct sound of the A10s all around us, and then we felt the ground shaking as the B-1B bombers dropped the "big stuff" on the Medina Armored Division. My fear returned during that time because everything was so close.

All I could think was "Don't miss. Please, don't miss." But this fear was not as strong as the initial fear I felt the first time we experienced combat while "in country." We were soon relieved in place by one of the brigades from 3ID, and then we went to the Karbala Gap to refit.

3/7 CAV Fighting in An Najaf. Gregory Fontenot et al. describe the battle at An Najaf in *On Point: The United States Army in Operation IRAQI FREEDOM:*

> *As the [C/3-7 CAV] troop set up a traffic control point (TCP), cars began to charge up the highway toward the position. Some charged just because they could not see the combat vehicles due to the weather, but some others had different intentions. The tank and Bradley crews manning the northern TCP were the first in contact. They fired warning shots for the traffic to turn around. Many turned and "ran" the other direction. Others paused, then jumped out of the cars and trucks, and engaged the soldiers with small arms fire. The threat was quickly neutralized. Still, other vehicles began suicide-charging the combat vehicles. They were eliminated as well. But due to the mass of the onslaught, a few others made it up to the tanks and Bradleys. Usually, they only made it that far because of the momentum of their automobiles, since the drivers and passengers were already dead from the massive amount of fire delivered by Crazy Horse.*
>
> *The scout [platoon sergeant], Sergeant First Class Jason Christner, watched as his platoon leader, First Lieutenant McAdams, fired his 9mm at a charging bus that rammed his vehicle, knocking the fighting vehicle back a few feet while almost knocking the crew unconscious. The enemies in the bus were already dead. The driver of the bus was expelled out the side door while still on his seat, as a Bradley main gun round pierced the windshield. Even a fuel tanker rammed the TCPs. It was destroyed and burned brightly, helping to illuminate Crazy Horse's fields of fire through the storm, the oncoming night hours and then the following two days' storms as well.*
>
> *The fight escalated to the point that Crazy Horse called in artillery and close air strikes (CAS) from B-1 bombers using global positioning system-guided Joint Direct Attack Munitions, JDAMs. (The B1 flew above the sandstorm and was able to provide support.) The artillery and CAS destroyed two T-72 tanks and a variety of other targets.*[2]

Refit. The Karbala Gap area we were in was a fairly safe zone that had been set up by the 3ID. I ensured the tank crew members arrived safely at the CSH. I refilled the oxygen tanks, and then I was finally able to take a shower. It had been close to 3 weeks since my last shower; it was the longest amount of time in my life that I had ever gone without bathing. While at the Karbala Gap, we slept on cots outside the M577 in the open air and felt pretty safe—we almost started to feel human again.

The Farm. After 4 days of refitting, we were ordered to take and hold some roads outside Baghdad. We set up in a field near a farm belonging to Uday Hussein (Saddam Hussein's son). To protect ourselves, we circled our vehicles. Each vehicle pulled guard throughout the night. We rotated guard duty every 2 hours from the top of our M577, while wearing a pair of night vision goggles and while armed with an M16 rifle. I always took the 0500 to 0700 guard duty shift.

We received some casualties from time to time while we were held up near the farm, and they were all Iraqis. Reporters found an Iraqi soldier hiding in a ditch. He had been hit by a large round, and it had gone through his leg and out his buttocks, leaving a hole I could fit a soda can into. We dressed the Iraqi soldier's wound daily and provided him with morphine for pain management. This Iraqi soldier stayed with us for a while, and the guys eventually called him Bob. He always wanted a drink of water, but every time we gave him one he would spit it out, which made the guys mad. We eventually learned that he would not drink *warm* water. (The command sergeant major, CSM, was walking around with the interpreter one day and that is how we came to learn that.) The CSM scolded us and told us to give him some cold water. We looked at him blankly and said, "Uh, we don't have any cold water. He is getting water the same temperature that we are drinking." The CSM didn't say anything and walked off. We always wondered where the CSM was getting cold water, if he was indeed getting it.

Our time on the farm was very boring, and being bored during a war is a very dangerous thing. We would take turns sightseeing by driving around in the platoon leader's soft-top Humvee. One day while on one of our drives, a stray bullet hit the right quarter panel just in front of me on the passenger side. I felt really stupid and had to stop the "joy rides" for a while after that.

The Weapons Facility. We eventually moved to one of Saddam's military facilities, where there was a weapons cache and a power plant. That location was nice; there were bunkers all around and we set up just outside one. We were bored again, so we decided to "clear" a bunker near us. (We thought it would be a nice place to sleep.) My medics, physician assistant, the platoon leader, the platoon sergeant, and I all strapped grenades onto our vests and went in to clear the bunker. I had absolutely zero training on how to do that, but it was such a rush I couldn't resist. We went down into the bunker, and luckily we did not run into any resistance forces. After coming up from the impromptu bunker clearing mission, we were yelled at by a sergeant first class who saw us coming out—especially me, "the Doc" and leader, with grenades hanging off my vest. (I deserved to be yelled at. Like I said, boredom is a dangerous thing in war.) We then set up in the cleared bunker with our cots, and I had my best night's sleep since I left Camp Udari. I also obtained several weapons while at the military facility. It was nice having extra weapons because I never really felt safe while guarding my corner of the M577 at night with only a 9mm pistol. I then had two 9mms and an AK-47, along with ammunition.

Several days in, the villagers started to bring their sick citizens to us. There was a clinic set up at the facility, and I was able to dispense medication for them. The interesting thing was they had a lot of the same medications that we had. (Their small clinic even had pentosan polysulfate sodium, which works as a bladder protectant and treats bladder pain and discomfort caused by cystitis.) A small child, who was about 3 or 4 years old, and in the end stages of leishmaniasis, was brought to the clinic. We didn't have any medications in the clinic or even in my sets that could help treat her condition, so all I could do was provide supportive care until we could get her to a more advanced medical facility. She had a completely curable disease for which I could do nothing, and I cried, as she reminded me of my 5-year-old daughter at home. So many things were in chaos at that point, and our ability to transport Iraqi patients such as this little girl to local hospitals was limited (where she very likely would have been turned away). I tried to get her to go back to one of our facilities, but that was just not possible because even evacuating a soldier was often difficult due to the circumstances. While waiting to be transported to the local hospital, the child and her family left—I assumed they already knew the little girl's fate.

Baath Party Housing. We later moved on to a Baath Party housing complex located just outside the airport. There were palaces all around, and many of them were damaged from the bombing. There was even one that had been in the process of being built before the war started. We pulled in and selected one of the empty houses to stay in, but it was really only a shell of a house. The Iraqi people had stripped those houses of everything: doors, windows, appliances, and even the wiring in the walls. It was approaching summer and getting hot, so it was nice to get out of the sun for a minute. We set up our treatment facility in the living room and used the rest of the rooms for sleeping and living quarters. One thing that became very obvious was just how much greener Baghdad was than the surrounding cities we had gone through. Not green like the United States, but certainly greener than the rest of the area to the south. It was greener because there was more water, which equated to mosquitoes. There were mosquitoes all over the ceilings of these houses. The first mornings were met with shrieks upon waking because the mosquitoes had been feeding on people's faces all night, and some reacted very badly to the bites. I had tossed my mosquito net before going to Iraq, thinking, "Why would I need a mosquito net in the desert?" Well, the Tigris River is why! So I wore my DEET (N,N-diethyl-meta-toluamide, or diethyltoluamide) insect repellent every night. One of the civilian contractors came to us seeking medical care; I treated him, and in return he allowed me and some of the medics to use his satellite phone. I was finally able to talk to my wife and daughter. One of the first things I said to my wife was "Send a mosquito net," which she promptly did.

We were stationary for a while, so the mail was finally able to catch up to us; it came regularly. I cried almost every time I read something from home, since everyone I cared about was writing to me. My bouts of crying eventually embarrassed me; it had become almost a nightly thing. I just couldn't control it.

I would read a letter and the water works would come. The problem was that at times others were around and witnessed it. I think word got around, but no one ever called me out. I shared a room with Cos and Captain Morgan at that time, and they were very understanding. They finally confronted me about my crying, so I stopped.

To pass the time, we would take regular trips to explore the palaces. It was fun to search for stuff, which made my day more exciting. The area we were in eventually became a Green Zone, and I started jogging. Jogging was something I've always done, and I was glad when I was able to do it again. It was still risky since there were holes in the perimeter, but I had to do it. I finally started to feel better.

Each day, the unit would blow up the unexploded ordinance they had found, and it made me jump out of my skin every time. Cos would say, "Doc, you won't hear the one that gets you." It was funny and comforting at the same time. At that point, we were mostly treating locals. We took care of the ones we could and transferred the others. Our unit also went on patrols where we would be responsible for certain streets and blocks.

Within a few weeks, I received word that my replacement had arrived and was heading my way. I cleared the unit, packed up, and said my goodbyes to the guys. I had a fellowship to return to, so I was one of the first ones to go back. Then, they pulled me and said they needed me to stay another night. That was devastating, since I had already said my goodbyes. I stayed one more night, and the next thing I knew I was told to go to the airport.

Battle Summary. At that point, the 3/7 CAV, 3ID had fought two of the most significant battles of the war. The 5 to 6 days of convoy from As Samawah to An Najaf were long and covered the longest distance that any unit in the US military had covered while consistently having enemy contact since the Vietnam War. The Iraqis fought asymmetrically in every way imaginable. There were times when the soldiers would be engaging dismounts with small arms less than 5 meters from their vehicles, and there were other times when soldiers picked up enemy weapons and used them against the enemy after running out of their own ammunition. Every soldier in the squadron had enemy contact of some kind. The squadron's battle at Objective Montgomery and Phase Line St. Louis was the largest tank-on-tank battle of the war. We were also the first to lose an M1A1 Abrams in battle. In total, there were over 2,000 Iraqi casualties, and a long list of enemy vehicles and weapons were damaged.

Baghdad Airport. I arrived at the airport and walked to the area where the outgoing flights were coordinated. I looked around and saw many miserable faces; they were all waiting to catch a flight. One guy saw my bewilderment and said, "Get used to it. You'll be here at least 3 days." At that point I thought, "Oh, heck, no!" and ran out of the airport in an attempt to go back to my unit but saw that my ride had

already left. I checked in and took my place along the wall. I was sitting for only about 2 minutes when I heard the man at the check-in area say, "Isn't one of you guys a doctor?" I stood up, and he waved me over. He said they had a soldier with an eye wound and they needed a doctor to accompany him on the flight. Normally, the doctors at the aid station in the airport would have gone on these flights, and they were glad I could take their place. After only 15 minutes at the Baghdad airport, I was on a cargo plane bound for Kuwait, accompanying a colonel with a retinal detachment.

Kuwait Airport. When we landed in Kuwait, the crew that had been waiting for the colonel with the retinal detachment proceeded to take him away. I was left standing there alone, so I decided to follow a man into a small building, where a person was telling a group of about 12 people to put on their civilian clothes; I did the same. While waiting for the flight to get ready, one of the men in civilian clothes raised a strong concern. As it turned out, he and some of the others were Special Forces, and they had some very "sensitive items" on the plane; therefore, they did not want us boarding the airplane with them. One of the soldiers spoke up and said, "How could you just leave us behind with so much room available on the plane?" The Special Forces soldier thought about it for a moment and said, "Okay, you all can get on. But if they tell us that we have to come back with this equipment, even if we are about to land in the US, all of you will be coming back." We did not care and we were all willing to take this risk, so I boarded the aircraft with the others. While on the cargo plane, one of the other soldiers who was fortunate enough to get a ride came up to me and said, "I don't think you know how lucky you are." I said, "Why?" He then pointed out the window and said, "Do you see all that over there?" I looked and saw hundreds of people waiting in a holding area. He explained that all of those people were waiting to get on a flight home, and some had been waiting for weeks. I was stunned. He smiled and said, "You just happened to walk into the right building at the right time." I didn't know what to say.

Bangor, Maine. Our first stop was at the Ramstein Air Base in Germany. We were there for several hours, and no one dared to let the Special Forces soldiers out of their sight. We then took flight again, this time heading to the USA. Our first stop on US soil was in Bangor, Maine. I got off the plane, and it felt so surreal—the air seemed fresher, the trees and grass were so green, and it was just so…quiet. I took in a big breath of it all. From there, we flew to Florida, and finally our journey ended in Charleston, South Carolina. The whole time I was worried that our flight would be diverted back to Iraq, but I'm glad it wasn't. From there, I had a short drive home to Fort Stewart, Georgia. I arrived home and saw my 5-year-old daughter sitting in her little chair outside waiting for me. I was finally home, and that feeling was one I will never forget.

After the War. I was at Fort Stewart for a short time, and then I started my fellowship in Washington, DC. Everything was fine for about 3 months, but then I started having problems. I became a very angry man, and I didn't know why. I was having bad thoughts, nightmares, and what I perceived as a lot of

anxiety. I experienced flashbacks at times and was embarrassed because I did not know if people around me heard or saw me responding to what I was seeing.

My wife did not say anything, I think out of fear. We had some bad arguments after I returned home from my deployment. But my daughter would say, "Dad, you were making a scary face." I hated going places because I did not like being around large crowds, and I never knew how I was going to react to a situation. I was so afraid that I would hurt someone because I went into rages in less than a second. I knew something was wrong, but my solution was just to withdraw and avoid conflict. I no longer engaged with my family; I just avoided them.

It took approximately 1.5 years following my return from Iraq for me to finally get help for my posttraumatic stress disorder. Therapy helped by allowing me to talk about my issues, and medication helped with my anger. I can now recognize my symptoms, and I have developed successful coping mechanisms. Staying in shape and being physically active are very helpful for me. Unfortunately, my marriage didn't survive. It lasted another 8 years, but it was never the same.

THOUGHTS ON DEPLOYMENT

I felt prepared for my deployment because I spent time as a general medical officer and flight surgeon in Korea between my first and second year of residency. That prepared me for the day-to-day things I would encounter. Also, as a gynecologic surgeon, I felt very comfortable with much of the trauma I saw. I may not have vast experience with chest tubes, but I'm not afraid to operate on someone. War is impossible to fully prepare for because most people have never seen war. I do not blame anyone for that. I grew up in a normal middle-class family; my dad served in the Navy for 27 years as a dentist. My trauma experience was always in the controlled environment of a hospital. But nothing could truly prepare me for the in-your-face life-and-death chaos of war.

I was initially a little irritated at being on the front line as a gynecologic surgeon. I had always thought I would be in a CSH, and I wanted that experience. But instead, I found myself on the front line—way out front. I had so much education and a 5-month-old daughter at home. I kept thinking, "This is a mistake." Adding insult to injury was the fact that my battalion knew that its assigned doctor was a gynecologist. I'm sure there was a lot of skepticism at first. But eventually I realized that was exactly where God wanted me. He prepared me all along. I did not want to break up my residency and do general medical officer time, but it happened. The flight surgeon course was full by the time I found out I was going to Korea, and yet somehow I received a call to be added to the class. Also, my particular obstetrics and gynecology internship at that time included 6 months of outside rotations, including surgical critical care (unit) and emergency medicine experience at William Beaumont Army Medical Center. Those rotations prepared me for dealing with trauma and the aftercare. Finally, I had the experience of going to the NTC with this unit.

My experience in an M577 for those 2 weeks "in the box" helped me become familiar with sets, kits, and outfits. Therefore, the transition for me was fairly seamless. I was the exact person this battalion needed for this particular mission.

In my role as a flight surgeon for a CAV unit, where the only women were some of my medics and one or two engineers, I did not have much opportunity to treat female soldiers. The equipment items I wanted—but lacked—were urine pregnancy tests and a portable ultrasound, since it has many uses other than for gynecological purposes.

In addition to gynecologic surgeries, I felt I could meet most trauma care requirements on the battlefield. In regard to specific care for gynecologic and obstetric services, we had enough in our sets, kits, and outfits for performing obstetric deliveries, providing IV antibiotics, and even for performing a stabilizing mini-laparotomy for an ectopic pregnancy, if needed. Many supplies were initially limited, especially on the push to Baghdad. But once the CSH was set up in the Karbala Gap, I had a source for supplies.
The little things make huge differences in a foreign environment. Nothing can replicate the experience and existence in war. I am also willing to bet that no other specialty has the depth of experience that gynecologic surgeons do in war. We really run the gamut from front line, to CSH, to forward surgical team (FST), to division surgeon, and other leadership roles.

LIFE AFTER DEPLOYMENT

Major Todd Albright, MD, earned the Bronze Star Medal and Combat Medical Badge during his deployment. He also completed Air Assault School at the age of 42. Following his retirement, Dr Albright joined Heartland Women's Healthcare in Southern Illinois and practiced pelvic reconstructive surgery for another 6 years. After that, Dr Albright relocated to Waco, Texas, where he joined Baylor Scott & White Health so he could be closer to his family. He is a triathlete and completed Ironman Texas in 2018.

MAJOR BROOK A. THOMSON, MD

Major Brook A. Thomson, MD (Figure 3.7), served as field surgeon, 547th Area Support Medical Company in Qatar, Kuwait, and Iraq, during Operation Iraqi Freedom (OIF) from February 2003 to September 2003.

I will never forget 22 February 2003: I left my 2-day-old daughter intubated in the neonatal intensive care unit, and my other five young children and my wife (2 days out from a Cesarean delivery) to fly across the world to "the sandbox." I will never forget the night the war kicked off from my very own Camp New York. I will never forget the tears that streamed down my face as I saw Vietnam veterans welcoming me home with the promise that no other generation of soldiers would be treated the way they were when they came home from war. I will never forget the incredible kindness from my military family as they "closed ranks" to protect my family while I was gone. I will never forget the 15 years I served in the US Army through the best and worst of times in our family's life. I hope that we will NEVER FORGET all of those who are serving now, have served in the past, and will serve in the future! I am grateful to everyone who wished me a happy Veterans Day. I am appreciative of those who are still serving, and I thank you for your sacrifices. I especially want to express my gratitude to the families of all those in uniform because they have the hardest job of all—holding everything together while their loved ones go into harm's way to serve. I say to all of the spouses and the children: "May God bless you in your sacrifice and watch over the ones you love!" How thankful I am to my own family, and especially my incredible wife who still leaves me in awe every day. How grateful I am to have the dream job of working with so many amazing individuals with whom I served all those years ago. Let us never forget and always be there for those who serve us, defend us, and sacrifice that which is most dear to them.

UNIT AND OPERATIONAL BACKGROUND

547th Area Support Medical Company, 3rd Area Support Medical Battalion

I deployed from February 2003 to September 2003 in support of OIF and was assigned as a field surgeon for the 547th Area Support Medical Company (ASMC), 3rd Area Support Medical Battalion (ASMB). Since the theater was immature at the time, this unit was split and sent to many areas in support of different units. My unit was an aid station that supported the 3rd Infantry Division, the 4th Infantry Division (4ID), and the 101st Airborne Division. I was stationed at Camps Andy and As-Sayliyah (Qatar), then Camps Virginia, New York, and Spearhead at the Port of Shuaiba (Kuwait). Lastly, I was temporarily assigned to the 161st ASMB in Camp Bucca, Iraq, to cover a medical shortage for that unit.

Cassandra Ruth Thomson Is Born. Every soldier knows that being called to leave family, friends, and home to support the needs of the country during a time of war is part of the job each one of them signed up for—but very few are excited to actually execute that job. I believe there isn't anyone more anxious for peace than a soldier; yet when the time comes, soldiers must do their duty. On 11 February 2003, I was notified that I was being called up to join my Professional Officer Filler System (PROFIS) unit, a group I had never met. The other PROFIS physicians, Majors Amy Connors and Frank Wood, were both pediatricians; our PAs were Captain Terry Smith (emergency medicine), Captain Shawn Lockett (occupational health), and Second Lieutenant Darla Masters.

I had anxiously been waiting for this deployment news to break and was hoping that it would not happen until after my wife, Jenny, delivered our sixth child. I was also concerned about a solid cyst on her left ovary that we had been following throughout the pregnancy. Fortunately, it had not grown, which made it less likely to be cancerous (but one could not be certain). I was concerned that I would not be able to see my new baby daughter, and I was worried about leaving my wife and five other children for an extended period of time—particularly when I knew the chances were high that my wife would need to deliver via Cesarean section. The short time between the "call up and wheels up" was a time of intense stress and anxiety that was balanced with remarkable outpourings of love and support from those around us.

The week after I received the notice to deploy was a blur. We fired our assigned weapons at the range, and we were issued our gear—including several sets of mission-oriented protective posture gear, which is used to protect troops in chemical/biological/radiologic/nuclear environments. I updated my will and power of attorney, filed my taxes, recorded myself reading stories so that my children could hear my voice,

[Figure 3.7]
Major Brook Thomson, MD, during his first night of Operation Iraqi Freedom, 20 March 2003. Photograph courtesy of Major Brook Thomson, MD.

[Figure 3.8] *Major Brook Thomson, MD, with his daughter Cassie, February 2003. Photograph courtesy of Major Brook Thomson, MD.*

recorded videos of myself with each of my children, wrote letters to all of my family members (just in case), packed duffle bags, and completed everything on the predeployment checklist. The deployment date was set, then it moved forward, then it moved back again, leading to stress and uncertainty. During this period, my wife and I did our absolute best to keep up our "normal" family routines, hoping to shield the children from parental stressors, but I don't think we did it very well.

This time was also the beginning of the most amazing display of love and concern I have ever seen. People from my church began to call in droves to ask what they could do for us. Meals were brought in, musical compact discs were created for me to take along and listen to, and errands were run on our behalf to give us more family time together. It was incredible. One of the most touching gestures came from Major Kevin Stiles, who rushed over when he heard I was deploying. He said, "Brook, let me go in your place so

you can be here for the baby." As I looked into his eyes, I could see that he was completely serious. Kevin is the father of six himself and a dear friend. What a great example of charity!

Not only was our church family supportive, but my military hospital family also pulled out all the stops to be supportive as well. Everyone offered to do anything they could to help my wife Jenny while I was away. After the final delay in our deployment orders, Colonel Peter Nielsen planned to perform an amniocentesis at 35-5/7 weeks with a delivery at 36 weeks. My mother and father cancelled their vacation plans and flew in. My wife and I were blanketed with love on all fronts.

The greatest blessing that occurred during this time was the birth of Cassandra (Cassie) Ruth Thomson (Figure 3.8). I was so very grateful for the opportunity to be present for her delivery. Colonel Nielsen and Captain Jen Brown (one of my senior residents) carefully performed the Cesarean delivery. Colonel Nielsen delivered Cassandra Ruth (breech birth) and showed her to Jenny and me over the drape. The ovarian cyst was then removed and inspected, and it was found to be a benign dermoid cyst. My heart sang with gratitude!

The following days were extremely trying—especially for Jenny. We have never had a baby in the neonatal intensive care unit before. Cassie was initially placed in an oxygen hood, and her heart was evaluated; her doctor found that her condition was benign, which was more great news. Over the next day, Cassie required intubation. I felt that I had been greatly blessed to be able to hold her in my arms before she was intubated, as she looked so much more comfortable and seemed to be at peace.

As we assembled around Jenny's bed right before I deployed, I prayed that the spirit of frustration would leave us and that our night could be one that left no doubt in my family's minds of how much I loved each one of them. I spoke to them about how our family was being asked to make a huge sacrifice, but said I knew it was the Lord's will that we do it. I was given blessings that brought me a great peace before it was time for me to go. I gave each one of my children hugs and told them I loved them. Words cannot come close to describing the feelings of my breaking heart at the thought of the separation ahead of us, or the pride that I felt when I looked at my family. Jenny and I then tearfully walked over to see our precious little daughter together. We spent some tender moments with Cassie; I will never forget putting my cheek on hers to transmit all the love I could to my precious baby daughter before saying goodbye.

23–26 February 2003: Trip to Qatar. We left from Joint Base Lewis-McChord, Washington, on schedule around midnight and flew to Philadelphia. Because of flight restrictions we had to lay over there for 3 hours before continuing on our way. We then flew to Gatwick Airport outside of London, and we were notified there had been a problem in obtaining the clearance to fly over Saudi Arabia. We ended up spending the night in Uxbridge at a Royal Air Force Base. Our overnight stay in London gave us a chance to get showered and actually lie down for a good night's sleep before we returned to the plane at

0300. The flight crews were amazing, and each of them left us with their blessings. It amazed me how they all bid us farewell with tears in their eyes, and it was very touching to feel their support. I had the opportunity to do things that I don't think I'd ever have a chance to do again, like having my picture taken while standing up inside the engine on our plane. One of the funniest things I heard was a flight attendant saying, "Please stow your weapons in the overhead bins." Then after a slight pause, she added, "I don't think I've ever said that before!" It was a really unique experience.

I was given the opportunity to briefly fly the plane at 37,000 feet over Egypt. It is impossible for me to describe the stark landscape; even from that height and with great visibility, all I could see was sand with a road or desert village here and there. I can certainly say that I have never been anywhere like that before, and although we were still 2 hours away from landing in Qatar, I was already missing the beautiful Pacific Northwest.

26–27 February 2003: Camp Andy, Qatar. Even though they were forewarned about our arrival, the Air Force personnel in Qatar seemed to be completely surprised when we arrived, as our mission had changed while we were en route. After completing a small amount of paperwork, we had a good dinner in the dining hall, then we were instructed to gather up one bag for the night (because we would only be there overnight). We were then driven to our barracks, which was a large tent with 80 beds in it, and men and women were housed in the same (coed) facility. (Welcome to the "New Army"!) By far, the highlight of the night was visiting the media center. It was a wonderful facility that enabled me to send emails and call home for one 15-minute period. How strange it was in this world that I could be deployed halfway around the world, about to go to war, and still be able to call home and talk to my wife!

Despite all the serenity of that day, we quickly had a stark reminder of what we were there to do. We were all lying down and a siren went off; we were told to don our pro-masks (or gas mask). As I stood outside the bunker with my gas mask on (and watching the F-16s fly overhead, one after the other), I was sobered by the stark contrast between the peace I felt when I talked to my wife or read my scriptures and the strife and contention that were so pervasive in this part of the world.

28 February–04 March 2003: Camp As-Sayliyah, Qatar. We moved again, this time to another camp in Qatar. The facilities were a little different in the new location, but they weren't anything I would consider to be a hardship. We were in tents inside large warehouse structures that had air-conditioning and plentiful water. The latrines were not quite as nice but they were still porcelain facilities, so I did not complain. We were no longer sleeping on beds but on Army cots.

Halfway through the day, the lead PA from the troop medical clinic (TMC) came by and introduced himself and gave me a tour of the clinic. He also gave me the opportunity to call home and check my

email again. I called Jenny and forgot that it was 0130 there. The reports I received from her were wonderful—Cassie was out of the neonatal intensive care unit.

05–06 March 2003: Movement to Kuwait. After a few days of doing nothing in Qatar except eating well, starting group physical training (PT), and having ready access to internet and phones, we received orders to move out. We were given about 20 minutes to collect our weapons and pack before loading onto the bus. We drove through Doha on our way to Camp Snoopy, and it was fascinating to see the beautiful minarets of the mosques and large mansions that looked like small castles. There were modern shopping centers but very few trees; only the mosques and wealthier neighborhoods had trees, and the green (mostly from palm trees) was a very welcome sight.

We went through an intense, several-hour-long security check on our way to Camp Snoopy, where we watched *Monty Python and the Holy Grail* while we waited for our flight. It was nice to have the chance to laugh at a time when we were all feeling very stressed by the uncertainty of not knowing what conditions would be like where we were going. We knew that moving from Qatar to Kuwait meant a move toward the front, and we were going to be that much closer to harm's way. (We also heard it was much more crowded there.) We finally boarded an Australian C-130 cargo airplane and made a stop in Bahrain; I stepped off of the plane just so I could say that I visited my second Middle Eastern country, with the third being Kuwait—our next stop. The Australian flight crew were very good to us; however, what was very sobering to me was the large palate of blood that we were flying with. It snapped me out of the jovial mood I was in and made me wonder what might be next.

We arrived in Kuwait at about 2230, and I immediately felt a difference. The soldiers who briefed us were no-nonsense and curt. There was a very different feel to this place, and not a change for the better. We finally arrived at Camp Arifjan at 0400 and fell exhausted into our cots around 0430. We awoke 2 hours later and discovered we were in an immense warehouse that must have been almost 200 meters long and was packed with several different units. What a setup for spreading disease! We went to breakfast and learned the entire post was packed, as there supposedly were over 10,000 troops there and growing. We went by the TMC and saw a line for sick call with more than 100 soldiers. We finally received our mission from Major McLain, who was a resident with me back at Madigan Hospital.

09 March 2003: Arifjan, Kuwait. Captain Shawn Lockett and I were scheduled to head north to Doha and set up shop, as was previously determined. But after I returned to the warehouse, I learned that the structure we set up had been completely changed without discussion or consultation with the physicians or providers. I really did not mind the change in location much, but I was very concerned by the underlying meaning of this decision. Unfortunately, the very junior officers (nonproviders) and enlisted personnel (who did not fully understand our capabilities) did not consult with the medical experts who

would be performing the clinical care. As physicians, many of us have worked on projects at the US Army Medical Command level and were used to working collaboratively with the top people in our field, in addition to being fully trained in combat casualty care. Regrettably, this unit did not appear at that time to want input or to have a dialogue with senior clinical staff who would actually be performing the combat casualty care.

At midnight we had a chemical/biological/radiologic/nuclear drill. I found it very comforting when we all just rolled over and pulled our masks on in less than 5 seconds. I promptly rolled back into bed and went back to sleep in my mask (until we decided to sing some gas-mask karaoke with songs like "Please Release Me, Let Me Go"). I had a great group of folks to help me get through with humor. We all managed to keep each other laughing—even in the really down times.

12–16 March 2003: Arifjan to Camp New York, Kuwait. Just when we began to feel at home at Arifjan, we were ordered to move out again. Captain Lockett and I volunteered for duty at Camp Doha, but we were informed we would be assigned to Arifjan Clinic instead. After one day in the clinic, we packed up and moved out on what we now affectionately call the "Train to Hell." We joke about how each stop we made was worse than the preceding one.

We stayed up most of the night getting everything packed into our vehicles. The next morning, after eating breakfast, the PROFIS providers were placed in the back of trucks for the ride because the unit did not have enough vehicles for their full complement. It was so dusty that I wrapped my face with gauze to reduce the amount of dust I was inhaling. I also managed to acquire a cushion, so I did not have to sit on the bare steel ledge. In addition to feeling like we were breathing in half the desert, the heat was so intense it nearly caused heat exhaustion. I kept forcing myself to drink water and found myself becoming so drowsy I could not stay awake. We asked to have the back of the truck left open for ventilation, which also allowed us to see free-ranging camels and huge oil refineries. If I wasn't napping, I was looking at these sights out of the rear of the truck.

When we arrived in the area of Camp Virginia we were amazed at the barrenness. It was flat and sandy—not something that you could easily imagine fighting over. We went through several security checks and finally entered the camp at 1800. It had been a very long day, but it still was not over yet! That evening, a huge sandstorm swept down on us as we were offloading our equipment. We could see it coming from miles away, like a solid wall reaching up to the sky, shifting and undulating with power. As darkness fell, the large tent we were staying in suddenly filled with sand, choking us yet again. Several of our people could not find their way back from the latrines that were less than 15 meters away, so we set up a rope that went from the tent to the latrines that would help allow for a safe passage.

After Captain Lenza was briefed on our ever-evolving mission, we learned that our teams would be split into smaller than treatment-squad-size groups and would leave the next morning. My squad consisted of me, Sergeants Brannock and Sandoval, and Specialists Auza and Dirocco. They were a good group. We were not provided with a very detailed briefing other than that we were to "fall in" on preexisting tentage and take on the mission of the 546th in Camp New York.

We first traveled to Camp New Jersey and dropped off Second Lieutenant Masters and her squad. This was a heavily defended camp surrounded by Patriot missile batteries. (I subsequently learned it was also the assembly area for the invasion.) Our camp was the next stop. When we arrived, I quickly realized that something was wrong. I learned from Sergeant Brannock that no one at Camp New York knew who we were or how to locate our unit. I then took charge and soon discovered that (1) the 546th was never in this camp, (2) there was not pre-positioned tentage, (3) the unit that we were actually replacing (the 703rd

[Figure 3.9] *Major Brook Thomson, MD, field surgeon, in an armored ambulance in Iraq, April 2003. Photograph courtesy of Major Brook Thomson, MD.*

Medical Support Battalion) had taken all their tentage with them when they moved forward, and (4) the camp was actually expecting our unit to be an entire ASMC, not one-half of a treatment squad. Because I had not been briefed on any of the details of this mission, I began with finding the basics: a place to live, a place to eat, and a place to set up our TMC. After driving to several locations, we finally arrived at LTC Laskota's cell, who was the camp's "Mayor." Each camp had a "Mayor"—a senior officer who oversaw administration of housing and other logistics for the camp. He was under tremendous stress dealing with more people streaming in than he had room to house. Still, he took the time to take us around the camp and help find a location and tent that would meet our purposes. We found an ideal one, but it was occupied by the battalion aid station for the 101st Division.

All of our equipment was in the vehicles and space was limited (Figure 3.9), so the women bedded down in a tent and we slept in the vehicles with the equipment. It was actually more comfortable to sleep in the vehicles than the tents from the night before. The next morning, I was approached by LTC Brewer from the 101st Corps Support Group (CSG), who escorted me around to another area of the camp and introduced me to LTC Mullen of the 101st. LTC Mullen did not have medical support and LTC Brewer did, so it was decided that LTC Mullen would find tentage for our unit. After further discussions with the Mayor, LTC Mullen decided that it made more sense to keep us in the Mayor's cell area where room was made for us to sleep and set up the TMC. We were thrilled to finally have a home. I then went to a meeting with the 101st CSG where I was introduced to Colonel Dolinish and the remainder of the CSG staff. It was there that I received my first review of the planned invasion. The 101st CSG welcomed us with open arms and helped us greatly. When I returned "home" to my squad's tent, I was pleasantly surprised to see the amount of work that Sergeant Brannock and the others had accomplished in my absence. They impressed me frequently. They set up all of my equipment and gear in addition to offloading all of our medical supplies. It was after midnight when I finally returned; they had even waited up for me before going to bed. It felt like we were forming into a solid squad and a little family.

The next morning, we began unpacking and sorting supplies to make a functional TMC. I was pleased with some of the supplies we discovered, but I was concerned about what we did not have in our kits. I remained amazed at how efficient our team was, including that of Specialist Dirocco, who made a beautiful sign for us, as well as organizing the books we would use as a patient and medical supplies log. As we continued organizing the TMC, patients started to arrive. It was wonderful to see how excited the soldiers were about having medical care available to them. Everyone was anxious to complete their anthrax vaccination series, so I made that our top priority. As the sun set at the end of the day, we actually had a very nice TMC in place, and I felt a great sense of pride in my squad. I was very happy to finally be prepared for casualties.

Sunday started with a trickle of patients, which grew into a slow stream. We saw only about a dozen patients, and they were all so grateful. I loved it. Sergeant Brannock again impressed me with his abilities to evaluate patients and did a great job placing an IV without the slightest difficulty. I wanted to do some laundry from the trip and was surprised when the third patient we saw turned out to work in the laundry. He took all of our laundry and returned it the same day—and it was even folded. The usual turnaround time for laundry was one week…talk about luck!

On late Sunday evening, we received our 700 doses of anthrax and 700 doses of smallpox vaccine. I had expected to pick them up the next day because we did not have a refrigerator, which led to a frantic 3-hour hunt for refrigeration all over the camp. I was also surprised when I found out that I delivered the baby for the LTC who had dropped off the vaccine. At that point, I had met three people whose children I delivered.

20 March 2003: The War Begins. On 20 March 2003, we went outside and did unit PT like normal, and I then listened to the 4-minute address from President George W. Bush announcing the war, which began with the strategic strike on a bunker in Baghdad. I was surprised at how like any other day this particular day initially seemed. We saw our morning sick call from 0800 to 1130 with a fairly normal volume, but then the day changed at lunchtime when the alarms for an incoming missile attack sounded. I then realized that this time it was for real instead of the usual Friday drill. It became even more real when we learned that missiles truly had been fired, and that at least two had actually struck sites in Kuwait. The Patriot systems managed to intercept several missiles, but not all of them.

During afternoon sick call, our clinic was loudly interrupted when someone from the Mayor's cell burst in stating that there was a large number of incoming Scud missiles (tactical ballistic missiles that were developed by the Soviet Union) and told us that we needed to go to the bunkers immediately. We grabbed our protective overgarments and raced to our bunker. I was shocked when I saw everyone standing around outside without donning their protective gear. I had my soldiers go to mission-oriented protective posture level 4, and then we sat in the bunker, waiting. After sitting there for about 30 minutes, the all-clear signal was sounded; a major from the 2nd Battalion, 101st Division, informed me that the Scud missile alarm had been the result of miscommunication. The actual message was supposed to state that the US was going to launch a large air strike at 1830, and that we were advised to stand by the bunker in the event of a retaliatory strike. We changed into PT clothes, which we wore under our mission-oriented protective posture gear, and we waited. Sure enough, the sirens again wailed, signaling a launch from Iraq. We all sat in the bunker quietly thinking our own thoughts; it was a nice time for me to reflect on my blessings and pray for safety so that I could return to my family. After a "small eternity," the all-clear sounded again—only to be followed by the alarm siren yet again. We hadn't even started to take our gear off at that point, so we just went back to the bunker again.

I sat silently thinking of the past day. I had been able to speak to my dear wife the night before, and it was wonderful. I think she was shaken by the news report that she and the children had watched from the events at Camp New York, because during the broadcast, they mentioned that the location I was currently at was located only 16 minutes from the Iraqi border. I was not even aware of how close I was to the border. My son, Bradley, sent me an email, asking why I hadn't told him about how close I was to the Iraqi border. I emailed a reply to him stating that I had not known until he told me in his previous email. My wife desperately asked me if I was going any farther north than I already had, and I could feel her audible relief when I told her I was scheduled to remain where I was in this camp.

I tried to look at the desolate landscape and find beauty in it. I made a habit of walking outside at night so that I could look up at the sky; I discovered that the moon on the desert is truly a thing of peace and beauty. The stars were bright and clear—except when the sandstorms came rolling in and obscured them from view. I began to feel at peace there, despite the crazy events all around me. The last thing I did that night was to write home and let my family know that I was safe. I'm sure they were worried about me, as the news of missiles coming our direction must have been all over the television.

23 March 2003: Camp Pennsylvania, Kuwait. We had a rude awakening at about 0200 when an interpreter and one of *our own* soldiers threw two grenades into the Mayor's tent on Camp Pennsylvania (which was located a few miles away from my camp) and then proceeded to open fire. Eleven soldiers were badly hurt, and my PA and our four medics took care of their injuries. My medical team was completely overwhelmed, but fortunately, they had help from the 101st docs there; they were able to rapidly evacuate the badly injured patients. Injuries included sucking chest wounds, tension pneumothorax, and abdominal wounds that were not responsive to intravenous fluids. This was advanced trauma life support (ATLS) for real. My PA was obviously shaken up but seemed to be coping well. Shortly after that event happened, a missile was shot down by a Patriot battery just outside our camp. We spent most of the night in our bunker (again) and waited to hear if our camp would have a mass casualty as well. Nothing happened on our camp, but we heard reports of explosions in Doha and Qatar.

The 4ID was supposed to be moving into our area soon, so we were preparing to be busy again. We had two missile alerts in one day—and what scared me was that I was beginning to take them for granted. I became very fast at donning my pro-mask and making my way to the bunker.

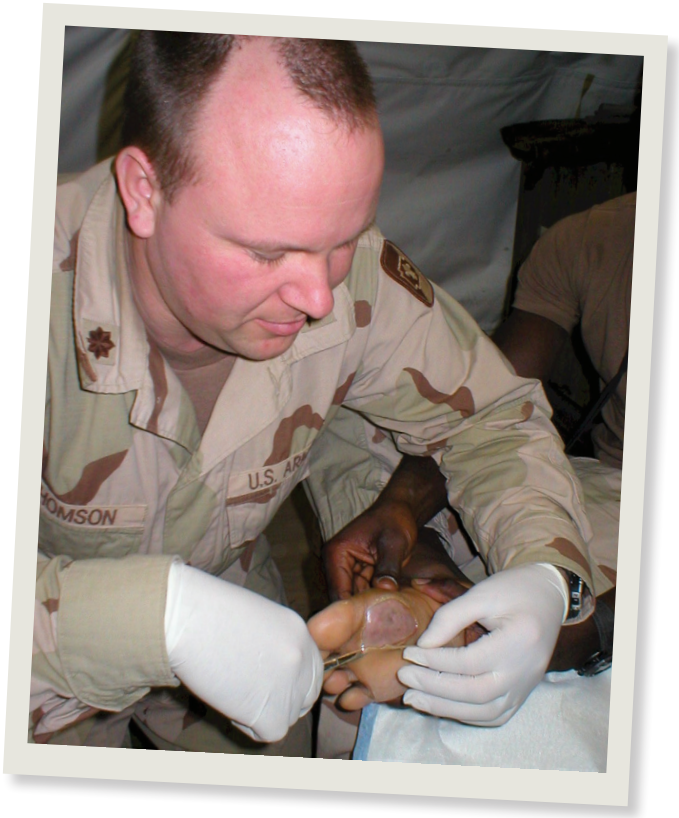
30 March 2003. We continued to have missile alarms almost every day. The scariest thing for us was a new wave of terrorist-like attacks by suicide bombers. An Arab driver ran over four soldiers at Udairi, just 4 kilometers from us. The war efforts were still going full speed ahead. We had several sick soldiers come in, and we worked until 0300. I was very tired, but I had so little to complain about compared to so many others who were farther north from where I was. I still had access to an occasional shower, toilet facilities,

and at times, hot food. The brave soldiers north of us had none of those amenities.
I was able to address some very important issues that concerned female soldiers by writing to Major General Kiley (Chief, Medical Corps) who then wrote to Brigadier General (BG) Weightman (Combined Forces Land Component Command Surgeon and Commander, 3rd MEDCOM, Forward). The problem was that before deploying, female soldiers were told that they could get their medroxyprogesterone acetate contraceptive injections or contraceptive pill refills (both used for hormonal menstrual cycle control to produce amenorrhea) while deployed at their TMCs. However, the TMCs did not actually have the medications readily available. The other problem was that female soldiers could present with abnormal uterine bleeding (caused by the lack of regulating hormones), which could adversely affect the fighting force because they risked becoming anemic and combat ineffective. Unfortunately, there was not an understanding of the importance of this matter among the ground level commands, because they did not deem this issue as "mission essential."

It was apparent that they thought the use of these medications was exclusively for pregnancy prevention and did not understand that abnormal bleeding could result in a plethora of field environmental hygiene issues due to the inability to regulate menstrual cycles. I felt that my concerns would help our female soldiers a great deal, and it made me feel like I was able to make a difference as a gynecologic surgeon. I was able to raise immediate awareness, with resulting actions by BG Weightman, by addressing a lack of supplies for female soldiers' hormonal cycle control. These two senior leaders responded to my requests immediately and took decisive action to support the medical needs of female soldiers, which reduced the need for their dangerous travel to the CSH to receive appropriate medical care.

I continued to be surprised by the support that came to us personally; we had support coming in from family, friends, the Madigan Army Medical Center, and a group of doctors from Harvard. Their chairman, Dr Ben Sachs, asked if I could send him a weekly message to share at their grand rounds, so he would be able to give them a personal look at the war. Although we were aware of protests against the war, I can't tell you how touched I was to see the news reports of all the people at home wearing the yellow ribbons, waving flags, and generally being supportive of the troops.

4 April 2003. We had two emergencies that night and I did not get to bed until 0300. One patient had a possible ovarian torsion, so I traveled with her to the 86th CSH hoping I could go to the operating room (OR). When we arrived, I was greeted by a slew of bright lights; the television program *48 Hours* was being filmed. I had microphones in my face as I jumped out and reported the patient information to the doctors at the CSH. Sick call the next morning, 5 April, was brutal; after that, we had a special meeting with our commander, LTC Mitchell, where I found out more about our unit's mission. We would stay on Camp New York (Figure 3.10) and organize another group of providers (who had just arrived) to serve the entire camp as the 4ID arrived. I was very excited about this mission since I had been



[Figure 3.10] *Major Brook Thomson, MD, field surgeon, at Camp New York in Iraq, April 2003. Photograph courtesy of Major Brook Thomson, MD.*

working hard with the Mayor to make medical improvements to this camp since our unit's arrival. We were assured that the medical supplies we had such a hard time procuring would be forthcoming, and we would be given further tentage to set up the additional aid stations needed to care for the growing population. I met a great group of doctors from the 10th CSH, with more coming (some of the doctors were my good friends). By the end of the day, we saw over 150 patients, including 21 heat casualties. I had been working with the Mayor on adjusting the uniform to allow the troops to deal with the oppressive heat, as it was 102 °F that day.

8 April 2003. For four straight nights I had no more than 3 hours of sleep. We had continuous patients to care for and, because we were the only TMC on Camp New York that was open 24 hours a day, I took a pounding. I was tired and cranky, and almost yelled at an LTC before I could regain my composure. I had been working very hard to set up a coherent medical care system on Camp New York with the various transient medical elements that were currently there. I kept getting interrupted with people randomly seeking treatment (who should have been coming during the sick call hours, but just popped in to see if they could get care outside of the set hours to avoid the lines). I had also been embroiled in many political battles because my current unit had not been particularly effective at getting supplies forward, which would have allowed me to take care of my patients. The supply issue was obvious to the medical personnel from other units who came to visit. They all tried to help me by talking to their friends "in high places," who would then come down hard from above on my unit—and in turn get upset with me. I made it clear I would work inside of the chain (of command) until that chain failed me, and then I would welcome any help that others wished to offer me if it allowed our team to complete our mission: caring for soldiers. I was determined to continue to perform this mission no matter what else happened.

Three Events That Saved My Sanity. First, on a Sunday, I was working in the TMC, trying desperately to break away and get to church as I was leading the services at that time. Five minutes after church was scheduled to start, one of my medics (who has a big heart) came over to me and said, "Sir, go get your God on," and took over duties in the TMC, allowing me to get to church. He knew how important my faith is to me, and he made sure that I did not miss that important part of my week.

The same Sunday afternoon, the CSM of the 101st CSG presented me with his Coin of Excellence. Receiving a coin from the CSM was one of the greatest honors of my military career. I did not get the chance to thank him adequately, as he quickly returned to his unit and then headed north into the fight. I prayed for his safety, along with the safety of all the wonderful people in his unit who had helped me out so much.

Last, the 10th CSH was only there transiently, but I immediately hit it off with their top leadership. They provided a doctor every other day to help give me a break (and to allow them to keep from getting too bored). We finally received air-conditioning in our medical tent after repeatedly stating how dangerous it was for us to be treating heat casualties in a very hot tent. However, when they brought the extra environmental control unit online, it caused the generator to spike to levels that threatened to cause a power failure for our *entire* compound. The Mayor and I agreed that we needed to move to a location where we would be guaranteed to have uninterrupted power. It took almost the entire night to move the TMC, and we all finally went to bed around 0400. When the alarm woke us up at 0700 I wanted to die, but in came "the cavalry" to relieve me—two nurse practitioners from the 10th CSH and one doctor from the 109th ASMB. I did a few necessary errands and then went to sleep in the Mayor's bed (that he graciously lent me for the day). I slept with only a few interruptions until 1400 and woke up feeling like a new man. I was thrilled to see that our troops were making astonishing progress in Baghdad, and I hoped that we could finish the mission and get home. I was then able to talk to Jenny; it was a great way to spend the day.

We had been very busy, and I saw more gynecology patients as the word spread that I was a gynecologic surgeon. That night, I was presented with a soldier who had appendicitis, and I was able to teach the medics how to diagnose this condition. I sent the soldier away to receive treatment for appendicitis in Udairi, Kuwait, and would wait to hear if he had surgery. I missed the OR, but not as much as I missed my family.

16 April 2003. That night, I had to call in my first aeromedical evacuation. A soldier who previously had eye surgery had his cornea flap come up, and needed to be evacuated urgently. It was fascinating to see the helicopter come swooping out of the night. They flew over our location and then turned on their search

light and circled around before executing a perfect landing. We loaded the patient up and off they went. It reminded me of field training I had while at the Uniformed Services University of the Health Sciences.

We had miserable weather that night (and the next day). The wind was pounding and stirring up the sand so much that whenever we went outside, our eyes instantly filled with sand. I wore my glasses all the time, but I needed goggles for additional eye protection. I saw several people a day who had sand in their eyes requiring irrigation.

Reportedly, the largest convoy of tanks in history left our camp on 15 April. All I could see was the top of the tanks as they drove by, one after another. I took a picture of one of the tanks, and it turned out that the tank I photographed was the most famous tank of the war. It had been hit by Iraqi artillery rounds and a single shot managed to disable it. Apparently, that was not supposed to be possible; senior leaders later studied the tank and then sent it back to the United States for an intense evaluation. It was interesting to see the size of the hole that had been punched into the tank; miraculously, none of the crew inside were injured. That was probably as close to harm's way that I was expecting to get at that point, with the exception of suicide bombers.

19 April 2003. That was quite a week for me, and the night of 18 April was the worst night of the week. I saw patients all night and finally went to bed at 0500. With the 86th CSH gone, I no longer had facilities for labs and X-rays. The nearest facility was now over 4.5 hours away by ground, meaning we were really out there on our own. I had to medically evacuate by air several soldiers out for everything from attempted suicide by overdose, to kidney stones, and eye surgery complications.

We experienced a horrendous shamal (wind and sandstorm) one day in April 2003

[Figure 3.11] *An approaching shamal (wind and sandstorm), 15th Evacuation Hospital, Logistical Base Charlie, on the border of Saudi Arabia and Iraq, 1990. Photograph courtesy of Kevin C. Kiley, MD.*

(Figure 3.11) that blew our tents around mercilessly and caused our power to go out. Worst of all, the storm caused everyone with asthma to have attacks, and one of my best medics became very ill and was out of action that day. For some strange reason, we also had several knife accidents where people cut themselves seriously enough that they required stitches. I spent a large part of the evening and morning stitching by flashlight because we did not have power. We had one grand mal seizure the next morning in a young man with no previous history; we stabilized and evacuated him for more extensive testing. The weather was so bad that the helicopters were unable to fly, so he was transported by ground.

26 April 2003. I had significant concerns and difficulty with determining my rating chain while deployed. I asked that once the rating chain was established if it could be published to all of the PROFIS providers because we all had questions. (Establishing and publishing the rating scheme is a critical component of leadership, as it ensures that soldiers align and nest their efforts and goals with that of their rater and senior rater.) Unfortunately, the structure of the modified table of organization and equipment resulted in the physicians having no direct ability to communicate with the command; we were made to feel as if we were subordinate to the senior enlisted. In addition, the perception in the unit was that PROFIS assigned personnel were not really a part of the unit. When I brought this to the attention of the company commander, he was very receptive to all my concerns, especially two critical matters (1) the physicians' ability to ensure that other senior leaders in the camp we serve, such as the Mayor and other unit commanders, had the ability to communicate with the unit through these clinician leaders, and (2) that the unit utilize the physicians' and other clinical leaders' knowledge of the specifics of the mission to aid in the decision-making process.

My biggest concern was that the reporting/command structure placed the PROFIS providers (typically captains and majors) as squad members, but they had little to no interaction with the command. That resulted in physicians and other providers having no input into medical planning. The resulting exclusion of Medical Corps officers' involvement until the very end of the process led to the inability to know the right questions to ask when a problem arose, as the providers were not a part of the planning process. That could become a major concern if we were suddenly leading an emergency trauma or code. Based on my experience, the senior medical provider in an ASMC should be included in unit medical planning processes, which would improve both medical planning and communication within the unit. The senior medical provider's clinical expertise would help to better inform the commander in their decision-making process. In addition, when the unit is subsequently split into treatment squads, the providers would become the officers in charge with the squad leaders subordinate to them, providing better understanding and more precise execution of the commander's intent.

05–07 May 2003: From Camp New York to Camp Spearhead. On 3 May 2003, I left Camp New York, and I was surprised at how sad I was to leave. After 6 weeks there, I had made a lot

of wonderful friends. The Mayor actually had tears in his eyes when he heard that my unit and I were leaving. The main unit we supported threw us a small going-away party. The other medical units on Camp New York came by to say goodbye and told us how sad they were to see us go. As we took down the equipment and packed it up, I felt really depressed. We had finally made this tent a home, and I loved working with my medics; we had truly become a family. Despite the frequent headaches I had with the unit structure, I loved treating soldiers. We saw 2,216 soldiers during our time at Camp New York and we made a real difference. I am very proud of that mission, and I will never forget the lessons I learned.

Our unit's new camp was called Camp Spearhead. It was located at the main Kuwaiti port and was very different from Camp New York. We were right on the sea and surrounded by industrial areas with cement and ammonia plants. The air quality was terrible, and I smelled sulfur all day long. We were now supporting the transportation units that brought equipment in and out of the country. They were a very hard-working and wonderful group of people. I was much more involved with the unit and felt better about how things were going since we moved camps. Captain Lenza had returned 2 days earlier, and we were able to work together to get some great things accomplished, such as administering the smallpox and anthrax vaccines.

The best news was that we had a redeployment date of 1 June 2003. What a wonderful light at the end of the tunnel! Everything was very fluid on deployments, and I have learned that nothing is sure until it happens. The entire unit was highly motivated to finish up strong and get out of there. We pulled 24-hour shifts, and I saw 47 patients with injuries—including shards of glass in a sailor's eyes and gasoline in the eye of a soldier.

12 May 2003: Camp Spearhead, Kuwait. I was excited about our redeployment date, but then became disappointed when I learned it was pushed back to 20 July. I was trying hard to get used to the new camp. Camp New York was in the middle of nowhere, so I had the opportunity to stargaze, but not so much there because of the industrial plants and poor air quality. We had smokestacks all around us that made it hard to see any stars, and I hated to think about what I was breathing in every day while doing PT. There were many people all around us, so I had a hard time finding a quiet place to reflect on life like I did at Camp New York. (I really missed the solitude, as I was in a large tent with 60 other people.) We set up the TMC and continued to see about 40 to 60 people a day. Most patients had upper respiratory illnesses from the awful air we were breathing, but we also saw heat casualties, crush injuries (there were lots of heavy equipment and machinery around), and musculoskeletal problems.

I worked with many Navy personnel, which was a lot of fun; it reminded me of my days at the Uniformed Services University of the Health Sciences. The Navy seemed to have more opportunities for

fun, and one day some sailors took me out on their patrol boat for one of the wildest rides I've had in a long time. The boat could go up to 42 knots (65 mph) and turn on a dime. They were anxious to show off their patrol boat to this "Army Doc," and I was given quite the ride. They placed me on the 60-caliber machine gun, which I held tightly as they bounced me all over. I ended up having a huge bruise on my left arm from that, but I would love to go get another bruise because it was so much fun. We also visited their 150-meter-tall guard tower and they showed me how port security was managed. It was a wonderful day. As always, I was impressed with the caliber of the soldiers and sailors we have, and I was so proud to be there serving with those fine people!

[Figure 3.12] *Camp Bucca in Iraq, 2007. Photograph courtesy of Kevin C. Kiley, MD.*

22 June 2003: Camp Bucca, Iraq. I arrived in Iraq at my assignment in Camp Bucca (Figure 3.12) after receiving word of a new mission. A party from the 161st ASMB arrived to transport me there. The good part was instead of riding in the back of a truck, I sat in the front seat and was able to view the landscape better. It was fascinating to see the patches of greenery wherever there was water. There was actually very fertile land wherever water could be found. I saw beautiful minarets on the myriad of mosques we passed and took a look at Kuwait City as we drove by it. We also passed free-ranging camel herds and caravans of Italian, Estonian, Spanish, Romanian, United Kingdom, and Australian soldiers (who were all allied with us).

When we arrived at the checkpoint before crossing the border into Iraq, the entire mood changed. We all put on our flak vests and Kevlar helmets and loaded our weapons. We were briefed on the latest tactics the Iraqis were using in an attempt to "snipe" us (like driving in pickup trucks with canvas over the back and then popping up and shooting). We drove through one large berm and then over a large ditch that demarcated the border; the next thing I knew I was in Iraq. As we entered the country, there was a large cement barrier that said to watch for children playing in the road. Suddenly, out in front of little adobe huts and shacks I saw children—lots of beautiful children in bright dresses were standing on the side of the street and waving at us. My heart melted and I felt a sudden outpouring of love for these people (that I really can't explain).

Fortunately, the remainder of the trip was uneventful. As we arrived at camp, I could see the rows of barbed wire around the holding enclosures and tents where the Iraqi prisoners were held. I was given a tour of the entire facility, including the area they called "Iraqatraz," where the most dangerous prisoners were kept. I felt somewhat uncomfortable looking at those prisoners because while some waved at me or gave me a peace sign most just stared back. I felt like some of the eyes I looked into radiated evil; it was a frightening glimpse into the darkest part of the men's souls.

The camp was much more austere than my last one. There was no air-conditioning, and I drank more than 9 liters of water since I first arrived. Staying hydrated was the most physically challenging part of that mission. The temperatures were 120 to 140 °F (48 to 60 °C) every day, and while the breezes were nice, it actually felt like you were standing in front of a blast furnace. If you take a hair dryer and turn it to high heat and blow it on you, you can get an idea of what it felt like. I was glad chilled water was available there, and I drank about 2 liters an hour. I learned that at night when you take off your military blouse it could stand up by itself and would glisten like it was encrusted with diamonds because of all the salt crystals you would sweat out onto it during the day. It was a sight to see.

I worked at the internment facility (IF) on my first day. They had separate enclosures surrounded by concertina wire with guard towers and soldiers patrolling. There were some really dangerous people there

and it was quite frightening when I was surrounded by a mob of them. We tried to let the "mob" happen as infrequently as possible, and it was reassuring to have the big guards there to make them stay in a line away from me so I could treat them one at a time. Some of the prisoners were kind and gentle—and I felt very sorry for them. They were at the wrong place at the wrong time. There were many teenagers in the group of prisoners, and that was the group that scared me the most. They were wild and impetuous and would do anything to show how cool they were to their friends. We also had Red Cross workers from Geneva who were there helping us, and I had a great time speaking with them in French.

I saw over 50 patients on my first day. Most patients came in to be seen just so they could get out of their confinement briefly—and I couldn't blame them. There were also a number of prisoners with psychiatric problems. The majority of the prisoners had depression, an anxiety disorder, or worse, psychotic conditions. The psychiatrists with us were astonished by the various psychological pathologies they saw—and most of it had nothing to do with the war. The most striking thing I saw were the patients who had performed self-mutilation. Many of them had large scars all over their arms and abdomen where they had cut themselves. When they had cuts, they would pick at them; and if you sutured them, they would take out the sutures and make the scars larger.

The maximum-security area was very interesting. I went there several times, and each time I found it disconcerting to look at the men who looked back at me with nothing short of pure hatred. One person, who was there for psychiatric reasons only, was nicknamed "The Jazz Singer." He was always dancing and singing as if he had a microphone in his hand. I felt very sorry for him because I didn't believe he belonged with the other dangerous and violent prisoners, so I worked on finding a way to get him out of there and sent to another facility.

One morning, I worked in the 320th Military Police (MP) medical clinic. That was almost heaven because the clinic was in an air-conditioned building, and it was also where the prisoners who had more serious health problems were treated. I saw about nine patients over my 8-hour shift, but I had some very interesting cases (intermittent testicular torsion, huge thyroid goiter with atrial fibrillation and myxedema) along with several cases of mild dehydration. The camp doctors were excited to have a gynecologic surgeon there; they announced my presence to the entire camp so that women could seek me out for gynecological treatment during the 2 weeks I was scheduled to be there. It was great to care for the female soldiers, although the resources I had to work with were pretty scant.

I had been running for exercise in the very early mornings or very late in the evenings because of the high temperatures; I found myself actually enjoying the time running alone. It was quite nice to be away from Camp Spearhead, the seaport of debarkation, for a while because I couldn't find anywhere to be

alone there. I was back in the middle of the desert again. The stars weren't quite as bright, and the skies weren't quite as clear as they were at Camp New York, but it was a big improvement over the seaport of debarkation.

28 June 2003: Basra, Iraq. I spent another day in the IF on 28 June—my least favorite place at the camp. One of the patients was having a heart attack or a panic attack; it was hard to differentiate. We did not have the ability to perform the labs he needed, so we transported him to a Czech hospital in the heart of Basra. I rode along in the ambulance, but I was nervous because of a recent attack on an ambulance (a rocket-propelled grenade hit the ambulance and killed the crew). We made it there safely and I had a wonderful time talking with the Czech doctors and received a tour of their facility. I told them Prague was one of my favorite cities in the entire world. I had great memories of my time there as a child and of the romantic trip Jenny and I took there.

The trip back to the camp was much more eventful. I rode with the MPs in their Humvee, and it was pitch dark. The MPs taught me all about the Mk 19 automatic grenade launcher they had mounted on the top of their vehicle, and they also offered to take me out on patrol with them anytime I wanted to go. We saw some tracer rounds on our way home, but we never came into any direct fire on our convoy. It was a little nerve-racking! That was a much more dangerous place than Kuwait and I would be glad to be going back to Kuwait in a week's time. I doubted I would ever take the MPs up on their offer to go patrolling, but I was grateful to those who put themselves in harm's way to protect others every day.

02 July 2003: Tallil and Ur, Iraq. We were supposed to leave early in the morning on 02 July, but we had to wait for the MPs to escort us. You couldn't travel without at least three heavily armed MPs in the convoy with you. It was very comforting to have soldiers with heavy weapons pointed at any vehicle that would come close. The MPs were delayed because they had to escort another mission, so we didn't leave until 1230. By then, the temperature was well above 120 °F (48 °C), which was extremely uncomfortable because we had to wear full body armor. Despite the oppressive heat, I was very excited about our mission, although I was worried we wouldn't arrive in time to see what I really wanted to see—the birthplace of Abraham in Ur (Figure 3.13). I found it incredible that I would have the chance to see Abraham's childhood home, as an American soldier in the heart of Iraq.

I traveled with Major Bakin, a marvelous devout Jew, who was as excited as I was for similar reasons. It was nice to have a religious companion for that trip. We drove in our convoy for 3 hours and 45 minutes before arriving. We had a nerve-racking roadside stop that turned out to be interesting. We usually stopped where there wasn't anyone around, but for some reason we stopped right by a run-down roadside stand. Whenever Americans stopped like that all the Iraqis would run out to the vehicles, which

[Figure 3.13] *Major Brook Thomson, MD, in Ur, Iraq, July 2003. Photograph courtesy of Major Brook Thomson, MD.*

can make you really nervous. I felt somewhat better having the MPs right there watching everyone very carefully, but I was still very cautious. Several young boys asked me to buy something from them. I had been wanting to get Iraqi money so I asked them if they had any. One boy produced a handful of coins and another two combined to get me quite a collection of bills. I figured out the exchange rate and then gave them more than their money was worth, and I was still haggling with them (which made them feel very happy). I was very happy too because I really wanted to bring home Iraqi money for my children. I even took a picture of my haggling buddies and showed it to my children later, which brought out big smiles from them.

We lost an hour going from Camp Bucca to Tallil, so it was almost 1800 when we finally arrived (and the site at Ur was due to close at 1800). Major Bakin and I broke off from the group and immediately headed for our target, only to find out that we needed a pass before we could enter. With time running out, we

raced to the judge advocate general office and obtained a pass, then returned to the site and found the guard had left his post, so we went in anyway. The site had a large structure called a ziggurat and many areas of excavation. We climbed to the top of the ziggurat and offered prayers of gratitude.

After dinner, we tracked down our unit and then left on a United Nations tour. We passed an Italian contingent arriving to take over a large area of Nasiriyah, then met some South Koreans who had a medical and engineering presence there. We arrived as the sun was setting in a spectacular fashion with the South Korean soldiers in formation doing tai chi drills. I took a picture with some of their soldiers and then we toured their medical area. We were escorted to see the doctor on duty (a general surgeon) while we waited to meet the chief medical officer. The doctor on duty said they really needed gynecologic surgeons to help them with their humanitarian mission, and I told them I would love to help. He gave me a tour of their new hospital, which was a beautiful facility. As we parted, we exchanged email addresses. He sincerely wanted me to visit him in Seoul, his hometown, and said he hoped to visit America. He then gave me a Korean baseball cap that they wear as part of their uniform. That cap, along with the Coin of Excellence awarded to me by the 101st CSG CSM, were among my most prized remembrances of the war. We finished the evening by going to the Air Force Expeditionary Medical Support hospital and received a great tour there.

Assessment of Female Soldiers' Health Care. During the course of my deployment, I had the privilege and opportunity to organize and execute a survey that assessed female soldiers' perspectives on the health care they received during OIF from Role 1 or 2 facilities. Of the 275 surveys distributed, 251 (91%) were returned and analyzed. The findings assessed the timeliness of receiving routine or acute gynecologic care prior to deployment as well as the medical care and gynecologic conditions during deployment. Twenty-two percent of the respondents had received no annual gynecologic examination (including the Papanicolaou test) in the past year. Irregular bleeding was the most common gynecologic symptom. Other findings included the following: hormonal cycle control patches fell off in 58% of cases, 23% of soldiers changed menstrual cycle control methods because of unavailability, 21% experienced gynecologic problems, and 44% could not access gynecologic care during deployment. Unfortunately, only 26% received predeployment menstrual hygiene counseling; however, 77% of those who received counseling and attempted cycle control succeeded in having amenorrhea.[3]

This data demonstrated that gynecologic screening and hormonal cycle control counseling and options must be consistently implemented prior to deployments. In addition, it is clear from this data, as well as my own observations, that specialty gynecologic care and medications for cycle control must be more readily accessible to all female soldiers during deployments.

Return to Camp Spearhead. I returned to Camp Spearhead in Kuwait and felt much safer again. I had a wonderful experience at Camp Bucca, mainly because of the great people and the opportunity I had to see some of the sites there. On my last day, I gave a speech thanking B Company, 161 ASMC, for their hospitality, and they, in turn, gave me a standing ovation. They were so grateful for the work I had done there, and it made me feel sad to leave them. They kept asking when I would be coming back, which was very touching for me.

I spent 4 July with the 161st ASMC. I had to work in the morning and then I took a nap, since there were very few patients. We planned a celebratory party for the holiday by buying meats (to include live chickens) and other items, and the cooks from the unit did the rest. One of the cooks spent the entire day killing and plucking chickens. (I was glad I only had to pitch in money!) By late evening, we gathered for the feast, and what a feast it was. We had tons of barbecued meat, baked beans, macaroni and cheese, watermelon, and potato salad, which reminded me of home. We all talked about our families and how we missed them and wanted to get home as soon as possible. We later had a small prisoner uprising, resulting in a single flare being fired off over the camp—which became our 4 July fireworks.

I left the next Sunday (the commander himself drove me down). It was good to see some of the people from my own unit but I was actually sad to be going back to them. The other unit had been so good to me that I actually considered them to be more of a family to me than my own unit. I had told Major Lockett that I wouldn't ride in the back of a trailer anymore, and I was surprised when my unit managed to get a sport utility vehicle to drive me home in air-conditioning. It was the coolest temperature I had felt in weeks. We went to Doha (it was my first time there) and I had Kentucky Fried Chicken for lunch. Upon my return I was warmly greeted by my own unit. I had time to throw all my belongings on my cot and go to church. Second Lieutenant Masters had arranged a special barbecue treat for my return with one of the Brown and Root contractors we had helped. For the second time in a few days, I was stuffed with very good food. My night was made complete when I found out I had received a package from my family.

18 July–01 August 2003: Emergency Leave. I had been trying to get through to my family on the phone for 2 days without success. Given busy schedules and the difficulty determining phone availability there, that was not a surprise. However, I went to check my email and there was a message stating that my wife was in the hospital. I stared at the message and felt a cold sweat break out as I wondered what could be happening to her, and didn't know who was taking care of our children. I immediately called Madigan Army Medical Center, and the nurses in labor and delivery transferred me to her. Apparently early on a Sunday morning, Jenny had severe and unrelenting pain that brought her to the ground; she was hardly able to even dress herself. She made a frantic call to Dr Nicole DeQuattro (a great friend who was 1 year behind me in residency and a super doctor). Nicole dropped everything and took Jenny to the hospital. She had her husband pick up our children, and he was able to get the five older children to

a family friend while Nicole took our youngest (Cassie) to the hospital so she could stay with Jenny for nursing. Nicole even took her home for the first night and brought her back at 0400 to be fed. Talk about great friends going above and beyond the call of duty! Several church members came to sit with Jenny and watch Cassie after that first night. Dr George McClure and Dr Pete Nielsen were, as always, looking in to be sure things were fine and worked with Bishop Criddlebaugh to get a Red Cross message sent that started the process of getting me home.

After the 161st ASMC soldiers helped to rapidly complete the paperwork (they did a great job for me), I was off to pick up my ticket to go home the following day. I departed on 18 July 2003 at 0040, and 14 hours later I arrived at Fort Lewis, Washington. It was a beautiful sight to see Mount Rainier, green forests, and water. The Puget Sound had never looked prettier. By then we had determined that my wife had a kidney stone with pyelonephritis, and she had a stent placed surgically to relieve the pressure. (I returned 5 days after the initial events.) The stone had apparently been dislodged during the procedure, and she reported feeling better almost immediately, although she was still in a fair amount of discomfort when I first saw her.

I cannot begin to express the sheer joy I felt while seeing my children and wife again. Perhaps the most incredible feeling came when Jenny placed my then 5-month-old daughter into my arms; I was able to see her beautiful green eyes opened wide and examining me. I wondered if she knew I was her daddy. The next 2 weeks were a blur of frenzied activity all centered on two themes—get Jenny better and enjoy being a family for as long as we had time together before I returned to finish my deployment.

20–22 September 2003: Home from Kuwait. After 7 long months, we were finally released from the desert. During a time when many of the soldiers were told they would be kept for "365 days boots on the ground," I felt very blessed indeed to finally have received the "mission complete" statement. I could not wait to get home to see my family. I was getting nervous because I knew I was scheduled to present at a medical conference in Germany on 26 September 2003. We arrived at Camp Champion (near the aerial port of debarkation) and in-processed, only to find out that our flight had been delayed 11 hours. Given the time crunch I was facing to get to an important medical conference, I was able to talk to the commander of the 101st Airborne Division, who graciously allowed us onto his flight home to Fort Campbell. Their flight was leaving 5 hours before ours had originally been scheduled to depart, which made us all the more grateful. I felt that was particularly fitting because the 101st Airborne Division was the unit I supported during the beginning of the war and also at Camp New York.

We flew home on a chartered DC-10 aircraft. Our flight plan was not exactly the most direct, as we first flew to the island of Cyprus. On the plane I was able to see the rugged coast and beautiful ocean that made Cyprus a popular tourist attraction. From Cyprus, we flew to Rhein-Main Air Base in Germany,

and I felt a twinge of nostalgia as I thought of the wonderful times my family had had here. That was where we had landed the first time I brought my family to Europe, and it was also where I in-processed for my first assignment to Germany. The lush green countryside looked wonderful as we left the Middle East and arrived in Europe. I called Jenny at a very early hour in the morning to let her know I was on my way home.

From Germany we made our way to Bangor, Maine. Upon touchdown, there was a huge roar of delight and a round of applause as every soldier on the plane found a way to show their happiness to be back in the United States. As we disembarked, we were greeted with a huge surprise. Lined up on both sides of the walkway for what seemed like a mile were hundreds of people wishing us well and thanking us for the job we had done. Tears of gratitude came to my eyes as I saw the many veterans who served during the Vietnam and Korean wars there. The (Vietnam) veterans had given up their precious time to be sure I felt welcome in a way that they never did, since many of those veterans were spat on and taunted upon returning home from war instead of being cheered on. I will always remember that welcome home and the bond of brotherhood I felt with those men and women who had sacrificed so much for their country without being shown any appreciation; they gave me the gift of a memory I will never forget. I couldn't help but think of what a great country we live in. I had the opportunity to speak to several of those wonderful people, especially the veterans, and I expressed my gratitude to them for giving up their time to greet soldiers they didn't even know.

The last leg of our flight took us from Bangor, Maine, to Fort Campbell, Kentucky. Our arrival there was also met with great fanfare. News crews and general officers were everywhere, and families were lined up to greet their returning soldiers. It was very emotional to see the families reunited, and I grew excited thinking about being reunited with my own family.

I spent my first night home in the United States in the visiting officers' quarters on Fort Campbell. I didn't sleep much because I was too excited about the prospect of going home the next day. It was still dark when we made our way to the airport in the morning. At noon on 22 September, I was standing in the SeaTac International Airport, thankful I had made it home safely. Moments later I had my wife and dear children in my arms, and I was so glad to be home.

LIFE AFTER DEPLOYMENT

Brook Thomson, MD, was honorably discharged as a major in 2004 following 15 years of service. He subsequently practiced in rural La Grande, Oregon, with Milo Hibbert, MD, Colonel, USA (Retired), his residency program director and a veteran of both Vietnam and Operation Desert Storm. In 2009, Dr Thomson created one of the first Maternal-Fetal Medicine-OB (obstetrics) Hospitalist integrated programs in the Nation at Saint Alphonsus Regional Medical Center in Boise, Idaho. He joined Baylor College of Medicine as the OB Hospitalist Division Director and built a second integrated Maternal-Fetal Medicine-OB Hospitalist program in San Antonio, Texas, with Colonel Peter Nielsen, MD, USA (Retired), and other prior service physicians.

He also served as the Maternal Medical Director and was selected as the inaugural surveyor for ACOG (American College of Obstetricians and Gynecologists) Levels of Maternal Care. At the time of publication, he is an Associate Professor and serves as the Associate Medical Director for Inpatient Obstetrics & Deputy Director of Obstetric Simulation and Outreach for the Department of Obstetrics & Gynecology at the University of Texas Health Science Center at San Antonio.

MAJOR PATRICK J. WOODMAN, DO

Major Patrick J. Woodman, DO (Figure 3.14), served as gynecologic surgeon and triage officer, 21st Combat Support Hospital in Mosul, Iraq, during Operation Iraqi Freedom from September 2003 to February 2004.

UNIT AND OPERATIONAL BACKGROUND

21st Combat Support Hospital, 30th Medical Brigade

The mission of the 21st Combat Support Hospital (CSH) was to support, stabilize, and transfer injured OIF soldiers; support, treat, and release civilian Operation Iraqi Freedom (OIF) employees; and treat and transfer combatants to military prisons once stabilized. The 21st CSH was one of three CSHs assigned to the 30th Medical Brigade during OIF I: the 21st CSH, the 28th CSH, and the 47th CSH. When the 47th CSH redeployed, some assets were "cross-leveled" to the 21st and 28th CSHs. The 10th CSH was also scheduled to deploy to Iraq but stayed in Kuwait; therefore, some 10th CSH personnel were also redistributed to the 21st and 28th CSHs. The headquarters of the 30th Medical Brigade was located in Balad, Iraq, near Baghdad.

Prior to OIF, doctrine allowed a CSH to operate "split-unit" capabilities for less than 30 days at a time. However, the 21st CSH operated "split-unit" capabilities for 11 months, with A Company in Balad, Iraq, where I spent about a week, and B Company (where I spent 5.5 months) in Mosul, Iraq, in support of Major General David Petraeus and the 101st Airborne Division.

[Figure 3.14]
Major Patrick J. Woodman, DO, gynecologic surgeon, 21st Combat Support Hospital in Iraq, 2003. Photograph courtesy of Major Patrick J. Woodman, DO.

Better Than Expected . . . and Worse Than Expected. I was a midrotation replacement for Captain Miguel Brizuela, and reported to the 21st CSH, B Company, during the 2003 and 2004 timeframe of OIF. I was assigned as a 60J (gynecologic surgeon) physician for the deployment but acted as a 61J (general surgeon) most of the time and was the triage officer for mass casualty events.
My experience was, as I am sure it was for many soldiers, in some ways better than I expected, and in other ways worse than expected. I suppose I was expecting something of a cross between the television shows *ER* and *M*A*S*H*. The "down times" were longer and more boring, and the hard times were more terrifying and horrific than I expected. I was asked to do some things I wouldn't ever do under usual circumstances; although I am proud I did those things, I must say I never really want to do them again. The 101st Airborne had 19,000 soldiers, and 9,000 of them were women. I was responsible for the care of all these soldiers—especially the female soldiers. During my deployment I performed three gynecologic surgeries, and I had one obstetrics case where I was presented with a pregnant patient who had a gunshot wound to the abdomen; unfortunately, the baby did not survive.

My experience can be summed up with a casualty we saw in October 2003: A 24-year-old soldier in Talafar was struck in the hip with a rocket-propelled grenade. The picture of his leg is etched into my brain; he came in with his left leg fractured, and his right leg was hanging from his destroyed hip by a few tendons and sinew. A combat medic had placed a tourniquet and tied off major bleeding arteries with shoelaces. The soldier's hip was shredded so badly that his right leg had come off intact; the medic used the severed right leg as a splint for the soldier's broken left leg (the free leg had been turned over and strapped to the other leg for support).

The saddest part occurred when this soldier was in the emergency room (ER). Just before we took him back to surgery he asked, "How much of my leg can you save?" When I told him, "It's all there, we just have to figure how much we can keep," he tried to cheer me up by telling me his brother-in-law made prosthetic limbs. Can you believe that—he was trying to cheer *me* up?

10 October 2003: The Combat Support Hospital. I was doing well and quickly acclimated to my new time zone after deploying. Most of my days were taken up by normal hospital-doctor work. In the morning, I would make rounds on my inpatients and help the surgeon of the day do his rounds. If there was a surgical case and a surgeon needed an assistant, I would first assist. If there wasn't a surgery to perform, I would help cover sick call with the internal medicine and family medicine physicians.
In the afternoons I had gynecology consults scheduled. I remained oncall 24/7 for any gynecologic consultation or emergency, and I would take ER call a few times a month. We were seeing one to five traumas per day from grenades, homemade and roadside mines, ambushes, and rocket attacks. I saw very few small arms injuries.

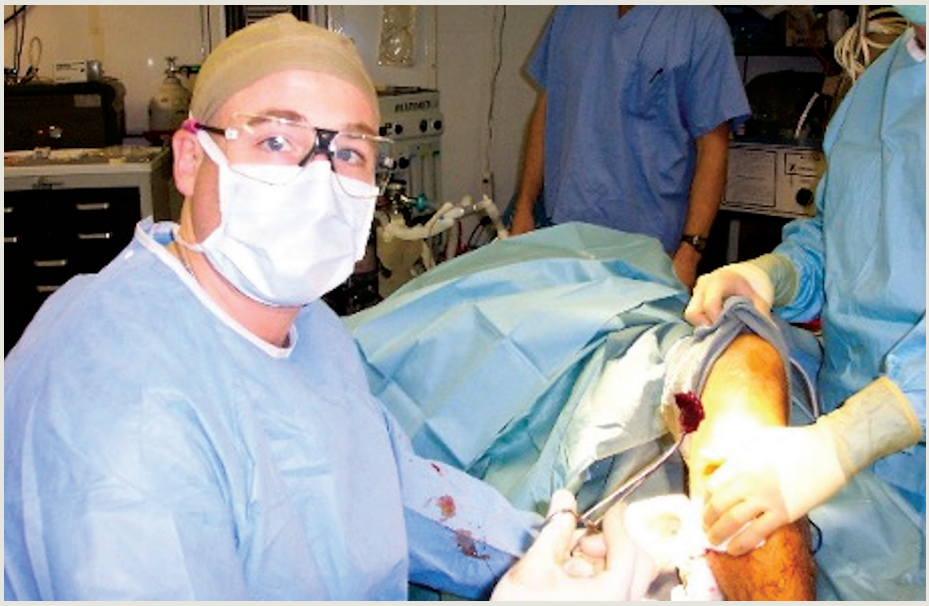
I was living in the providers' tent (think "The Swamp" in *M*A*S*H*) except there were 10 of us sharing the tent. The guys had done some bargaining and obtained local air-conditioners, a small fridge, and a television with a satellite. The *M*A*S*H* analogy is a good one, except there were about 500 people in the hospital and *M*A*S*H* was a bit smaller, so we had more amenities. The unfortunate thing was that in a week's time, I would be moving to Mosul, and the hospital there was much smaller than the one on *M*A*S*H*—and the providers' tent was just a tent. I tried to keep myself busy by reading and playing games on my Palm Pilot. I resisted fully unpacking because of my impending move, so even though I brought professional reading and some crafty projects, I did not unpack all my gear.

We had mortar rounds fly overhead but did not have one land near our camp for several months. I had only been there a week, but I had to put on my flak vest and Kevlar helmet twice since I arrived: once for mortars and once when I had to medically screen a young Iraqi boy brought in by his parents. Unfortunately, there was a pregnant woman who detonated a suicide vest the previous summer, so everyone was cautious when we treated local nationals.

7 November 2003: Casualties. It was a bloody week in Iraq around 7 November because 31 Americans died. Sixteen of them perished on a Sunday during a rocket-launched downing of a Chinook transport helicopter. Six Americans died in a Black Hawk helicopter that was shot out of the air, and three died in the Mosul area after a series of three coordinated attacks (improvised explosive devices and a rocket-propelled grenade) were implemented. We were in the OR all day (Figure 3.15), and although we joked about the fact that I was a "combat gynecologic surgeon," I amputated a hand, debrided a skull fracture, and removed shrapnel from two soldiers' legs in a single day.

Colonel Rozanski, the commander of the 21st CSH-North and a urologist, was working an ER shift when the call came in that five litter-urgent patients were on the way. Colonel Rozanski was able to recruit our internal medicine physician, Skip Mondragon, and our psychiatrist, Mike Cole. Colonel Rozanski said he was looking for me to round out his "motley crew." During the resuscitation of these soldiers, we were visited by the commander of the 101st Airborne Division, the chief of operations for the 101st Task Force (TF), and the commander of the combined 21st CSH, so they were able to see what we *really* did.

I saw some things that week I wish I had not seen. We did our best for our soldiers. If they made it to our OR, then they had a pretty good chance of surviving. Seeing their injuries, though, made all the trite and inane things we dealt with every day not matter.



[Figure 3.15] *Major Patrick Woodman, DO, in the operating room with the 21st Combat Support Hospital in Iraq, 2003. Photograph courtesy of Major Patrick Woodman, DO.*

20 November 2003: Mosul. Things calmed down a little in northern Iraq. The 101st's patrols of the town to search for those responsible for mortar attacks increased. Unfortunately, that weekend two Black Hawk helicopters crashed. Apparently, an improvised explosive device went off, two helicopters responded and then clipped each other. One helicopter was said to have been split in half, killing all the occupants. The other helicopter went into a spin, but the pilot was able to crash-land on the roof of a building, saving the lives of five of his passengers, as well as his own. He was then able to pull most of his passengers out to safety. We received six patients; one was badly burned, and we pronounced 15 soldiers dead. It was very hard.

29 November 2003: Four Straight Days of Attacks. We had four straight days of attacks that week, which kept us in the OR until the wee hours of the morning each day. It seemed like a silly way to celebrate the end of Ramadan, but I guess we have Devil's Night in Detroit. Whenever a Michigan or Michigan State University team wins, cars would be flipped over or something would get burned.

Part of the "festivities" (of Ramadan) included a family that was caught in the crossfire of a firefight between American soldiers and some enemy elements near the gate. The family was one of the few Christian families in town and they were on their way to church. I took care of a 13-year-old girl who was very lucky; although she was shot in the chest two times, the bullets slowed down, broke four ribs, and then were deflected before exiting near her pelvis (and never entered her chest or her abdomen). Her mother and sister were slightly injured, her dad more so, and her brother didn't survive. It was very sad.

Thanksgiving was fun. We had a sit-down dinner with all the people from my section. Then the new urologist and I volunteered to do guard duty for a couple hours to give the enlisted soldiers a break. It was interesting and then boring; I was glad I didn't do it every day. I was able to try out the night vision goggles, although they don't work very well when the sun is out (I think I burned my retinas). It rained for 4 days in a row, and everything was covered in mud. I thought the desert would be made of sand, like at the beach. But it's really made of powdered dirt. If you add two 10-ton vehicles to the dirt and rain, you get world-class mud pits!

Saddam Hussein Captured! Saddam Hussein was captured, and I was sure he would be paraded around for the press, interrogated, and (people there were hoping) he'd be sent back to Iraq to stand trial or go to the International Criminal Court at The Hague in the Netherlands for war crimes. We expected an increase in activities from the resistance after his capture, and we did get more mortars (three in 3 hours the night of his capture), but after that night we had very few casualties.

29 December 2003: Holiday Week. After Saddam's capture, there were relatively fewer improvised explosive device (IED) and mortar attacks compared with the preceding weeks. As a matter of fact, we had only one IED explosion that week and all the other injuries we treated were non-battle related. Most of the injuries we saw then were accidents.

Holidays were like every other day there. We shut down the clinic on Thanksgiving and Christmas Day, but still had soldiers to take care of. My whole experience consisted of being on call 24/7 for 6 months without weekends off. We had the place decked out with decorations and (fake) trees and a couple of us opened gifts we saved, but it was pretty much business as usual on Christmas.

Our New Year's Eve was punctuated by mortar rounds. We had an area there where the main portion of the 101st Airborne Division was housed, Area of Operations Glory, and they had planned an unexploded ordinance destruction for midnight (it was kind of *our* version of fireworks), but the Iraqi resistance decided to keep us hopping and on our toes all night. There were minimal casualties and it was another boring week.

13 January 2004: The Grizzled Veteran. The largest troop movements ever attempted by the United States were underway—redeploying 120,000 soldiers home and deploying 90,000 soldiers to Iraq. It was comforting to see the first group of the 101st Airborne head home and arrive safely and then the first group of the Stryker Brigade arrive from Fort Lewis, Washington.

We received word that the 31st CSH had arrived in Kuwait. They, along with the 67th CSH from Germany, would assume the medical mission in Baghdad, Balad, Tikrit, and Mosul. Unfortunately, the redeployment process was behind, and 450 soldiers who were supposed to be home were left waiting on the tarmac. Rain and weather were our biggest enemies then.

21 January 2004: Erbil, Iraq. I went to Erbil, a Kurdish region of Iraq, and the people were very friendly; they were happy to use the chance to practice their English with me, and the kids wanted to shake our hands. The hospital in Erbil was built in 1980 by the Japanese and was touted as the most modern and well-run hospital in Iraq. The trip involved a grand rounds presentation, including presentations of patients, and a review of labs and radiology.

Early in the morning, the main body of the 21st CSH, B Company, left Mosul. I was then in Incirlik, Turkey, at a US air base, and I was scheduled to be back in the United States by the end of the week if all went well. I was thinking about my gynecologic surgeon colleagues who had not yet returned from their deployment (Mike Sundborg, MD), and those who had just deployed (Gerry Harkins, MD; Kim DeVore, DO; Sandra Hernandez, MD).

I want to thank my family and friends for their kind thoughts and prayers while I was deployed. It was wonderful reconnecting (albeit electronically) with so many of my friends and family members over the months of my deployment. And it was great hearing about their lives in their corners of the world, as my only connection with the outside world was through them. I had very little television (besides the Armed Forces Network), many restrictions on internet information, no cable, and no radio. It was my family and friends who kept me sane.

I also thank everyone who took the time to check in on my family: Nora, Gabby, and Francesca—who were stronger than they thought they would be.

THOUGHTS ON DEPLOYMENT

I volunteered, but likely would have been assigned for deployment either in September 2003 or February 2004 if I had not. My deployment allowed me to go for a relatively predetermined period of time and avoid a 1-year deployment that may have led to skill degradation. However, I am proud I was able to serve my country, and I draw upon the experiences I gained almost every day since then.

I performed three gynecologic surgeries in the nearly 5 months I was deployed. For all other surgeries, I acted as a general surgeon, or assistant for our general surgeons, urologist, and orthopedic surgeon. Despite completing the Combat Casualty Care and Advanced Trauma Life Support courses, I cannot say I was completely ready for what I saw or did. Regardless, I do think the general surgery experience I had while deployed made me a better general gynecologic surgeon and subspecialty-trained pelvic reconstructive surgeon.

LIFE AFTER DEPLOYMENT

Patrick Woodman, DO, was selected for promotion to lieutenant colonel and was later honorably discharged in 2005 following the completion of his service obligation. He subsequently joined Indiana University, where he practiced pelvic reconstructive surgery and also served as the Assistant Fellowship Director for the next 7 years. After that, he helped start a new osteopathic medical school in Indianapolis at Marian University and served as Chair of Specialty Care. In 2015, he was asked to help obtain an ACGME-accreditation (Accreditation Council for Graduate Medical Education) for a former osteopathic obstetrics and gynecology residency. He served as the program director and later practiced female pelvic medicine and urogynecology. In 2020 and 2021, during the difficult COVID-19 pandemic, he served as the president of the American College of Osteopathic Obstetricians & Gynecologists.

COLONEL JOSEPH M. GOBERN, MD, MBA

Colonel Joseph M. Gobern, MD, MBA (Figure 3.16), served as Chief of Surgery, Task Force Bravo, 10th Combat Support Hospital, 20th Medical Brigade in Tallil, Iraq, during Operation Iraqi Freedom from August 2005 to April 2006.

UNIT AND OPERATIONAL BACKGROUND

Task Force Bravo, 10th Combat Support Hospital, 20th Medical Brigade

Colonel Joseph Gobern was deployed from August 2005 to April 2006 in support of OIF. He was the Chief of Surgery with TF Bravo, and was assigned to the 10th CSH in Tallil, Iraq, as the senior physician and medical director for integrated surgical services and personnel (including a two-bed OR, a trailer constructed by the CMS Corporation, a four-bed intensive care unit [ICU] and a nine-bed ward). Colonel Gobern's surgical team included an attached FST (with an orthopedic surgeon and two general surgeons, as well as supporting nursing and enlisted technicians), an integrated 10th CSH noncommissioned officer in charge, two surgical technicians, an OR nurse, and a nurse anesthetist.

Task Force Bravo. Following 5 weeks of training at Fort Carson, Colorado, with the full complement of the 10th CSH, we were organized into TF Alpha (the primary team to occupy Ibn Sinai Hospital in Baghdad) and TF Bravo (which ran a surgical clinic in Tallil). I was assigned as a general surgeon and was the senior physician on TF Bravo, and I was additionally tasked as the Chief of Surgical Services. We co-located with a reserve medical company and provided acute outpatient care and staff to support the 24/7 operation of the ER. Task Force Bravo augmented this capability with the OR, ICU, and ward capability as well as lab, radiology, pharmacy, and central sterilization. I coordinated inpatient

[Figure 3.16]
Colonel Joseph Gobern, MD, gynecologic surgeon, 10th Combat Support Hospital in Iraq, 2005. Photograph courtesy of Colonel Joseph Gobern, MD.

services in addition to the surgical services on a daily basis with the deputy commander of nursing and the TF commander.

Initially, I coordinated with the medical company in place to integrate outpatient clinic coverage and emergency department (ED) call coverage, and we outlined mass casualty procedures and responsibilities. Rules of engagement required stabilization and evacuation of US service members, usually with a 24- to 48-hour hold capability. We occupied a low-intensity conflict area along a main supply route with a 16-kilometer secured perimeter, including an airfield and multinational forces. We had mature lodging (two-person trailers with air-conditioning) and morale, welfare, and recreation (MWR) facilities. The primary wounded were motor vehicle accidents and local national IED or burn injuries. As the senior physician, I ensured there was a rotation of surgeons available to support the ED with an on-call basis, and I ensured the routine providers were staffed for the ED. I triaged local national casualties based on the rules of engagement and capabilities, accepting any injuries that risked life, limb, or eyesight. As we entered the winter months, burns from heating stoves became more common among the women and children. Severe burns that threatened life, limb, or eyesight cases were accepted into our ICU for supportive care, and surgery was available if required.

Our unit became very good at providing wound care, skin grafts, and physical therapy required to return the local nationals to their uncertain civilian health care system. The injuries seen in the local nationals were similar in Baghdad in addition to the IED trauma. Some local national patients who were stable for transfer were sent to TF Bravo for extended burn care when our census was low. Triage of local nationals, particularly those with longstanding nonacute disease or deformity (and not within the rules of engagement to accept), made our job difficult when we had to decline their care.

I was in Iraq for approximately 6 months, and we probably had three mass casualty events with three or more patients. There were several situations where the FST was forward deployed, which left me and one other general surgeon on call for ED and mass casualty situations. The daily routine of caring for minor surgical emergencies such as appendectomy, wounds, or hernia repairs was heightened when we had mass casualties incoming on helicopters that would arrive in quick succession. The entire team would be mobilized (ED physicians, nurses, techs, and surgeons) and lay out the triage platform—while fighting the dust storms. The severely injured patients got the full drill of airway stabilization, inspection, an IV line, a Foley catheter, and surgery. Then I went back to my daily clinic routine and waited.

The only gynecologic emergency I saw was a contractor with heavy menstrual bleeding and anemia, and we learned that she had a large, 5- to 6-cm prolapsed fibroid upon examination. She refused evacuation because her time on station would not cover her for medical care or treatments.

I rotated each of the surgeons to Baghdad for 1 month for skills enhancement—which proved incredibly valuable in the management of trauma care, from oral maxillary external fixation to stabilization of traumatic bilateral amputees. Most of the surgeons were in their first utilization tour beyond residency, so we all learned a great deal and gained great respect for our fellow surgeons. Further, I organized a monthly journal club to enhance the academic environment and occupy our downtime.

LIFE AFTER DEPLOYMENT

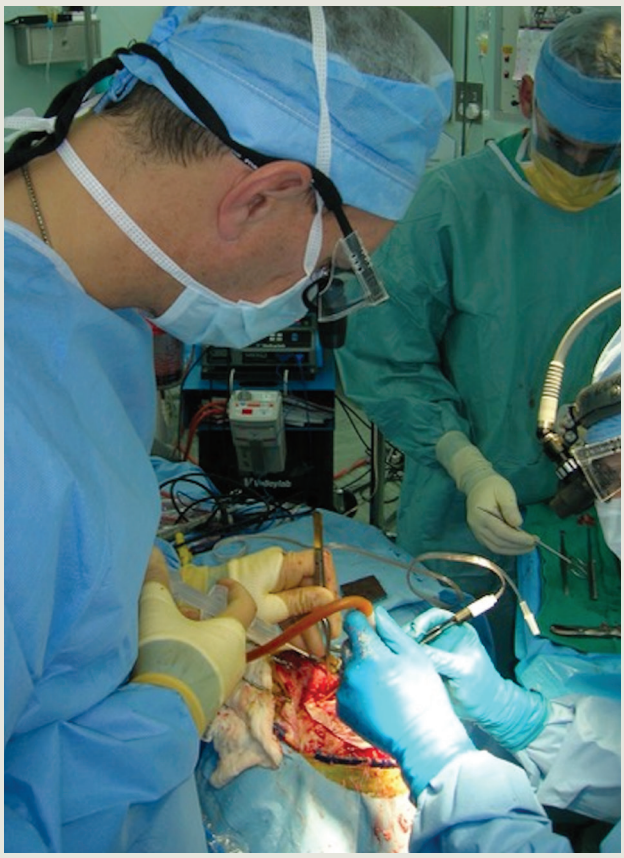
Joseph M. Gobern, MD, MBA, retired as a colonel after serving as the Chair of Department of Obstetrics and Gynecology at Walter Reed National Military Medical Center. He completed a master's degree in business administration from George Washington University and at time of publication serves as the system chair of the Department of Obstetrics and Gynecology at Main Line Health, where he oversees women's health services. In his role, he works with health system leaders and care teams to build on recognized strengths, identify and address unmet needs, and ensure value-driven metrics for obstetric and gynecologic care. He also maintains a clinical practice in minimally invasive gynecologic surgery focused on care of women with complex, benign pelvic disease.

COLONEL BRIAN J. CRISP, MD

Colonel Brian J. Crisp, MD (Figure 3.17), served as gynecologic surgeon, assistant deputy commander for clinical services, and clinic chief, outpatient clinic, 10th Combat Support Hospital in Baghdad, Iraq, during Operation Iraqi Freedom from October 2005 to April 2006.

UNIT AND OPERATIONAL BACKGROUND

10th Combat Support Hospital



[Figure 3.17] *Colonel Brian J. Crisp, MD, gynecologic surgeon, operating with the 21st Combat Support Hospital in Iraq, 2003. Photograph courtesy of Colonel Brian J. Crisp, MD.*

The primary missions of the 10th CSH were to support combat operations and to care for injured soldiers. The 10th CSH deployed in an urban region of Iraq in a mature theater of operations, and more commonly cared for non-US, or local national, patients during combat medical operations including pediatric patients. We also had admissions for nontraumatic illnesses.

Surgical Cases. I tried to help out as much as possible in the OR as a surgical assistant to various other surgeons, as gynecologic surgery was uncommon. I performed one cesarean section, saw 2 to 4 patients a day in the outpatient clinic for gynecologic conditions, and performed several dilation and curettage procedures during my deployment. In other specialties, I assisted with general surgical procedures and became independently credentialed to do open appendectomies. I assisted with the specialties of ear, nose, and throat; ophthalmology; orthopedics; cardiothoracic surgery; and burn grafts.

25 December 2005: Baghdad Christmas.

Near Christmas in 2005, I had 2 months down and 4 to go. At my last count by that time, some 700 or so souls had come through our hospital since we arrived. Christmas is the season for reflection, but what did I reflect upon while out there?

Well, I suppose first and foremost, I reflected on how much I missed and loved my family and friends. I realized how thankful I was to have them in my life and how precious they were to me. It sounds hokey, I know, and we often don't speak our hearts like that often, but if you were there (in Iraq) for only a little while you might understand where that came from. There were so many whose last view of this earth was the medical evacuation helicopter or our hospital and the people in it. There were so many who passed through there, life intact, but absolutely changed forever because of the loss of a leg, an arm, two legs, both arms—and sometimes all four. People were burned almost beyond recognition. Burned soldiers and Marines typically fared better than the locals or the international patients, as we evacuated our soldiers and Marines out of there immediately; they received truly world-class care at the Army Institute of Surgical Research Burn Center in San Antonio, Texas. For the local nationals, *we* were the burn center, and we were simply not a tertiary care center. Many died of overwhelming sepsis. The worst (to me) were the neurological injuries. They would wake up in the morning essentially normal people and, by the end of the day, they had been blown up, shot, or blasted, which caused them to sustain a neurologic injury—and they were then paralyzed or, worse yet, had limited brain function due to an open or closed head injury.

I am reminded of the horrible day when a large group of Marines were airlifted in, and not a single one of them had intact legs. They all had lost either one or both of their legs, and of those who lost only one, the other one may have ended up being amputated back in the United States. None of those Marines were older than 22 years of age. My colleagues and I worked pretty much all night on them, and we tried like crazy to revascularize their legs—to no avail. Obviously, without blood flow, the foot and leg are doomed, and one after another had to be amputated. It is difficult to describe how frustrated and crestfallen we were after trying so hard to save their limbs, seeing ahead into the future, imagining them wheeling themselves in and out of the Veterans Affairs hospital. They had to muster all the bravado they could just to get through that. The specimen bucket on the OR table was typically the place where the appendix is placed after it's been removed, or the uterus after a hysterectomy, etc. It was starkly sobering to see a foot, an arm, or a hand in it (with a wedding band still on the finger).

I reflect on the Army lieutenant who was blown literally 70 meters from where his up-armored Humvee had been cut in half by a shaped-charge IED. While the three other soldiers in the vehicle were killed instantly, he had been thrown over a ditch and was found about 15 minutes later. How he survived that long is an absolute miracle. He lost his left arm and right leg and a great volume of blood, and all the long bones in his body had been broken in at least one place. After our initial damage control surgery,

he was still in need of further resuscitation in the ICU, and we determined that we needed to explore his abdomen. By that time, his commander, executive officer, and first sergeant had arrived. We briefed them on the situation and informed them that additional abdominal surgery was necessary to control the ongoing bleeding in his belly. It's hard to describe the emotions I felt when I saw those three soldiers, still in body armor, still dirty and sweaty from the field, huddled next to their soldier's bed in prayer. They had their arms around each other's shoulders, hoping to give their soldier some strength to survive his next struggle. It was a true hero's prayer.

Same Care for All. We honestly and truly gave the same care to anyone who would present to us, and most of the time we didn't even know whether our Iraqi patients were "good guys" or "bad guys" until after they left the OR. The major difference was where a patient was sent after initial stabilization surgery. I happened to see a Medical Service Corps officer who was stationed at Abu Ghraib and asked him if the care we rendered to the Iraqi patients had actually ever turned one of the "bad guys" into at least a "neutral guy" if not an outright turncoat to his own cause. He told me about a security internee who was fighting with the nurses and staff on one of the wards and was shouted down by his comrades. The other security internees essentially told him to pipe down because the Americans didn't have to provide medical care for him, but they were doing it anyway. He calmed down after that, which was somewhat heartening.

For all the doom and gloom that you probably read about in the daily paper during the war, there really were some good stories that came out of that place. Remember that if people are getting along, if kids are playing in the park, there's not really a story to be told, and therefore it isn't told. But that's pretty much exactly what was happening in Kurdistan, where new car dealerships were opening, where people didn't walk about in body armor and Kevlar helmets while fully armed. Soldiers ate lunch and had coffee at cafes without the risk of being blown up during dessert. A friend of mine who's been to Kurdistan remarked that when she went out to lunch up there, the waiter quipped that they would be very willing to become the United States' 51st state. They loved us up there—they thought we literally saved them from "the devil." The Peshmerga, the Kurdish "army" as it were, kept a close guard on the borders. In the south, while it was not quite that rosy, it was certainly much calmer than where I was. The hospital down there, shall we say, was markedly underemployed. The middle of the country was where there was so much to do, and where the struggle continued. That, of course, is where I was.

I also reflected on the fact that in terms of taking the long view, and looking at the history of war, we truly have never had it so good. In terms of creature comforts, at least there in the hospital, we had three hot meals a day with 31 flavors of ice cream, a reasonably robust internet (in that I could usually log on and write an email), and phone service that connected us to the United States immediately—even though the

lines were typically full of soldiers trying to reach home. We had toilets that flushed real water. The funny part was that you couldn't flush toilet paper or feminine hygiene products, so it would all go into a trash can in the bathroom that was emptied daily. For those who have traveled to the developing world, you know that scenario isn't really either awful or rare. We had showers that were immediately accessible. We had very polite local housekeepers clean for us. Most were Chaldean Christians, a Catholic rite, but some were Muslims.

As a sidebar, although the housekeepers were screened by the security personnel, and although we believed the overwhelming majority were not with the insurgency, we never *really* knew. And even though the local cleaning staff and the engineering crews were searched both before entering and exiting the facility, you still didn't *know* where they stood, no matter what they said. I suspected the overwhelming majority of them were indeed staunch "anti-Saddam" people, but you think to yourself, "It only takes one." So when I heard a loud noise, I instinctively perked up. Was that another bomb somewhere, or did someone just slam the door on the first floor? After hearing a few bombs go off in the distance, it could be very difficult to distinguish between the two.

As terrible as much of what we saw was, I had to remind myself that in World War I, there was an average of over 2,100 deaths a *day*. And that's not counting those who were maimed, gassed, blinded, burned, and mentally traumatized—that's just the *deaths*. Can you imagine that? For 4 years… and that was only the Western front. How the medical personnel survived that is absolutely beyond me. Also, our death rate during OIF would have been so much higher if it were not for the truly excellent care that we and others on the evacuation chain provided. I have told you before that while I was privileged to help out in those cases, I typically was not the primary

[Figure 3.18] *Colonel Brian J. Crisp, MD, gynecologic surgeon, operating with the 21st Combat Support Hospital in Iraq, 2003. Photograph courtesy of Colonel Brian J. Crisp, MD.*

surgeon—it was usually the general surgeons, the orthopedic surgeons, the cardiothoracic surgeons, the neurosurgeons, and the ophthalmologists who worked the real magic.

Gynecologic Surgery and Obstetrics. Now, having said that, I must tell you I was privileged to have performed the first cesarean section at the hospital there in over 40 years. An Iraqi woman was air lifted in after she presented to an outlying forward operating base in labor. She already had seven kids and her labor was clearly obstructed, so her midwife took her to the closest medical facility she could get to: an American Role 2 facility. However, they did not have a gynecologic surgeon stationed there, so they subsequently flew her to me at the 10th CSH. We quickly figured out the baby was breech and took her to the OR for an emergency cesarean section, which went fine. I can't tell you how many nurses and technicians looked in to see how it was going. It was a girl, with an Apgar score of 9 and 9. Her name was Tamarra (Figure 3.18). The *Scimitar*, our local Multi-National Force – Iraq (MNF–I) newspaper, even ran an article on the birth. The last baby born there at the CSH (vaginally) was also born on election night. Although that might seem like a positive omen for Iraq, it more likely reflected the fact that the entire country was in lockdown several days before and after the actual voting took place (for security reasons). That unfortunately blocked roads and everything else making it very difficult or impossible for a laboring woman to get to her usual hospital, for instance. Lucky for her, she came to the CSH; lucky for us, she came to the CSH.

Within 24 hours of Tamarra's arrival, I was called in for another gynecologic surgical case. A woman presented to the ER complaining of sharp pelvic pain. A computerized tomography (CT) scan revealed a foreign object identified as a needle in her abdomen with the sharp end at the uterine fundus. Her surgical history included a cesarean section 5 years prior, and she had some recurring incisional pain for about 4 years after her cesarean section. She presented to her local Iraqi physician and complained about her pain. He injected her wound with something—most likely a local anesthetic or steroids. However, in the process of the procedure, the needle apparently broke off under her skin and couldn't be retrieved. She was told, "It will be OK," and the visit ended. While I do not know what actually transpired, he may not have been able to even get her to the OR to remove the needle. So, over the course of a year, instead of the needle working its way out, it worked its way in, entering the peritoneum covering her uterus. We took her to the OR and removed the needle under fluoroscopy, and she had immediate relief from her pain. I was later called down to the ER to evaluate someone, when I saw the neurosurgical team go in to evaluate a patient. That usually was not a good thing, as it was typically a patient who had sustained a gunshot wound or blast injury to the head. But in that case the patient, an Australian contractor who was about 50 years old, was sitting somewhat comfortably on his gurney in the ER and chatting merrily with one of our nurses. He had a small defect on the very top of his head with a trickle of dried blood that had run

down through his hair. In the Middle East, there is a rather unique tradition of what is euphemistically called "celebratory gunfire." That's where you take your AK-47, point it into the night sky, and fire live rounds in celebration of some happy event. A wedding and the capture of Uday and Qusay Hussein are examples of times when the locals might fire off a magazine of bullets. Well, that had been going on that particular night in Baghdad for several hours, and the entire city was taking part. What was the reason for this outpouring of emotion and its accompanying lead? Saddam found guilty? No. Mass weddings? No. Americans leaving Baghdad? Wrong again. The Iraqis had beaten the rival Syrians in a soccer game. (And you thought the Yankees had wild fans!) Bullets rained down on much of the capital for hours, and 46 people in the city sustained injuries of various sorts from those rounds. The brave (or foolish) who strayed to the roof of Jones Hall (a section of the Ibn Sina Hospital) to see what was going on reported they saw rounds flying over the building and saw streaks of tracers going up from various parts of the city. The CT scan really told the story with our patient. The scout film clearly showed an AK-47 round going literally straight into his head, in the middle, and on top. It penetrated about a centimeter or so into the gray matter. Fortunately for him, the bullet managed to strike a neurologically "silent" part of the brain, causing essentially no damage—but it did give him quite the story to tell. After we removed the bullet, this patient was determined that he was finished with the contractor lifestyle, at least there in Baghdad. He said, "It's time to go. My luck has run out." It was hard to argue with that.

Visitors. I also reflected on some of the visitors we had while I was deployed there. The 10th CSH played host to the Dallas Cowboys cheerleaders and Al Franken, host of the *Al Franken Show* on the Air America radio network. Unfortunately, I missed them both, but they were followed by a visit by Secretary of Defense Donald Rumsfeld, with whom a colleague and I took some great photos. I can only tell you that when the Secretary of Defense or some other high-ranking administration official shows up, it greatly boosted morale. We also had the good fortune to be one of 15 people, including our ambassador, Mr. Kahlilzad, who were invited to have lunch with Dr Ibrahim al-Jaafari (the Prime Minister of Iraq in the Iraqi Transitional Government from 2005 to 2006) at his home in Baghdad. He thanked us for our service and said he visited wounded soldiers at Walter Reed National Military Medical Center, and he met with the widows of some soldiers. He seemed to be a highly articulate and intelligent man as he described his visit, saying it was very emotional, with tears shed all around. Lunch was very nice, although a little awkward. How do you sit and make small talk with some of the most powerful men in Iraq while surrounded by unsmiling men carrying locked and loaded automatic weapons? The 9mm pistol strapped to my leg kept bumping into my neighbor's M16, so it was an interesting lunch.

THOUGHTS ON DEPLOYMENT

I felt like I was prepared for my deployment. I think we (as gynecologic surgeons) were overrepresented as a specialty for this deployment—there were two of us, when there wasn't enough gynecologic surgery for even one of us. However, it was difficult to predict casualties as the enemy always gets a vote.

I don't think we were limited for any gynecologic or obstetric care we provided—we had ultrasound, including vaginal probes—and when a pregnancy was diagnosed the patient was redeployed. We had all the medications and labs we needed, or we could direct patients to the mail-order pharmacy. We were able to provide most gynecology treatment that was appropriate for theater and minimal (but appropriate) obstetric care.

LIFE AFTER DEPLOYMENT

Brian Crisp, MD, retired from the Army as a colonel after almost 30 years of service, and then relocated to a small town in New Zealand where he practiced medicine for 2.5 years before returning to the US. At publication, he is currently part of an academic teaching faculty for a newly formed obstetrics and gynecology residency program at Marian Regional Medical Center, Santa Maria, California.

LIEUTENANT COLONEL PAUL WHITECAR, MD

Lieutenant Colonel Paul Whitecar, MD (Figure 3.19), served as chief of clinical operations for Multi-National Corps – Iraq (MNC–I) in Camp Victory, Iraq, during Operation Iraqi Freedom from January 2006 to December 2006.

Staff Officer. I deployed as a staff officer for the Multi-National Corps – Iraq (MNC–I), surgeon. For the year I was deployed, I practiced very little medicine and definitely did not practice any gynecologic surgery or obstetrics. While my experience didn't have much to do with my training as a surgeon, I definitely gained an appreciation for the role of staff officers and the military decision-making process. I helped develop guidelines and regulations for medical personnel in theater. In retrospect, I had the opportunity to do and see things my civilian colleagues could not even imagine. I traveled extensively

[Figure 3.19] *Lieutenant Colonel Paul Whitecar, MD, chief of clinical operations, Multi-National Corps in Iraq, 2006. Photograph courtesy of Lieutenant Colonel Paul Whitecar, MD.*

across the area of operations and had the opportunity to spend time with our coalition partner health care providers at the Polish and South Korean hospitals in Erbil, Iraq. I also had the opportunity to inspect Iraqi prisons and spent a month as a voting member of the prisoner review board.

Overall, the deployment was a great experience. I formed some close friendships and had the opportunity to work with true professionals. The hardest part by far was the separation from my family and the challenges they went through while I was deployed. I was an individual augmentee to the unit I was assigned. Most of our group was part of V Corps in Germany, so I really did not have the benefit of a family readiness group (FRG). I would have preferred to be deployed in a position where I could practice medicine more, although the overall experience I had was positive.

LIFE AFTER DEPLOYMENT

Paul Whitecar, MD, retired as a colonel in 2013 after 26 years of service, and subsequently joined the academic faculty at Wake Forest School of Medicine in North Carolina. In August 2018, he moved to Utah to be closer to family. At the time of publication, he works for Intermountain Health Care in a community-based maternal-fetal medicine practice.

MAJOR JERRY K. IZU, MD

Major Jerry K. Izu, MD (Figure 3.20), served as gynecologic surgeon, 47th Combat Support Hospital, at Contingency Operating Base Speicher in Tikrit, Iraq, during Operation Iraqi Freedom from April 2006 to October 2006.

UNIT AND OPERATIONAL BACKGROUND

47th Combat Support Hospital

The 47th CSH was deployed in support of medical operations in Tikrit, Iraq. The unit was deployed in October 2005 and provided medical treatment and hospitalization services in Tikrit and Mosul until its return in October 2006. Generally, we provided sick call and supported operative services to combat casualties; the hospital did not provide any care to Iraqi civilians.

Experiences. I volunteered for a 6-month deployment. The CSH that replaced us (in the same location) did not have a gynecologic surgeon. We had two general surgeons, and during our deployment, the surgical caseload hardly kept the two surgeons busy. However, I felt I would have been able to substitute for one of them if needed. Some surgical procedures I performed were a loop electrosurgical excision procedure (LEEP), a laparotomy for an ectopic pregnancy, and two appendectomies—a total of four cases over a 6-month period.

The CSH had a great group of providers, and I keep in touch with three other physicians regularly by email or phone. I was able to meet wonderful people, which made up for the lack of surgical experiences while deployed.

[Figure 3.20]
Major Jerry Izu, MD, gynecologic surgeon, 47th Combat Support Hospital in Iraq, 2006. Photograph courtesy of Major Jerry Izu, MD.

LIFE AFTER DEPLOYMENT

Jerry Izu, MD, was honorably discharged in 2011 after completing his service obligation. Since that time, he has been working in private practice at Valencia Gynecology Associates in Valencia, California, where he lives with his wife of 23 years, Bernadette, and their youngest three boys. The older three (two girls and a boy) are in college but still come home when occasion permits. Dr Izu's military medical education proved more than adequate preparation for his private practice career, and he is thankful to his mentors (Holly Olson, Wilma Larsen, John Farley, Nathan Hoeldtke, Amy Asato, John Frattarelli, Sam Heth, and Eric Salminen) for their expertise and instruction.

COLONEL EDMUND W. HIGGINS, MD

Colonel Edmund W. Higgins, MD (Figure 3.21), served as gynecologic surgeon, 28th Combat Support Hospital in Ibn Sina, Baghdad, Iraq, during Operation Iraqi Freedom from August 2006 to March 2007.

UNIT AND OPERATIONAL BACKGROUND

28th Combat Support Hospital

Our unit occupied an existing hospital, Ibn Sina, in the Green Zone of Baghdad. Our mission was to provide medical support to units engaged in ongoing operations in and around Baghdad. During my deployment, it was "pre-surge" (of US troops), so the place had the feel of the Wild West. It seemed like every month we were setting a new record for the number of casualties we saw and the units of blood we used.

[Figure 3.21] *Colonel Edmund Higgins, MD, gynecologic surgeon, at the 28th Combat Support Hospital in Baghdad, Iraq, September 2006. Photograph courtesy of Colonel Edmund Higgins, MD.*

Sectarian Violence. I learned quite a bit during my deployment, and I was most struck by the types of casualties I saw. I speculate that we were probably doing more trauma care for our size medical package than any American hospital. In fact, probably more trauma care than any hospital outside of Baghdad in the entire world. It was really busy in Baghdad during that time, as an average of 100 people (mostly civilians) died every day in the city. Sectarian violence was at its peak. About 75% of the casualties we saw were Iraqi: Iraqi army, police, Special Forces, suspected insurgents, and civilians. We saw lots of civilians—especially women and children. When US forces were wounded, we provided their initial surgery and resuscitation, but for the most part, they

were on a transport plane out to Landstuhl Regional Medical Center in Germany within 12 to 24 hours. I was impressed by how efficient our medical transport system was for the soldiers.

Because the wounded US soldiers were transported out so quickly, some weren't even conscious, so I never really had the chance to get to know them. It was with the Iraqis that I formed incredibly close bonds. As a gynecologic surgeon, I mostly served as a first surgical assistant for orthopedic cases. While multisystem trauma was common, the majority of patients had an orthopedic and soft tissue component wound of their limbs. Because the Iraqis had limited care after we saw them, we tried to get them to the point where all they needed was physical therapy and rehabilitation. To accomplish this, scores of patients underwent multistage procedures to treat fractures, amputations, bowel resections, and even cesarean hysterectomies. To this day, I still remember the faces of some of those patients: a Special Forces colonel who was a double lower extremity amputee, a 3-year-old child who had part of her foot amputated, and a pregnant woman with shrapnel embedded in her uterus. Most of the Iraqis were very grateful for the care they received, which was at the same standard of care the US forces received from us.

Trauma Evaluation. As my time in Baghdad went by, I began seeing trauma patients by myself. After I evaluated the patients in the ER with either the orthopedic surgeon, general surgeon, or ER physician, and confirmed there weren't visceral cavities involved or any fractures, I took them in for an incision and drainage. I became very skilled at performing focused assessments with sonography for trauma, or FAST, exams with my ultrasound training and experience. At that time, we had three operating rooms, and each room had two beds. It was common for two cases to be going at the same time, so there was always another surgeon available whom I could go to for help if I needed to.

One of my patients was an elderly man who had been shot multiple times. He was sleeping in bed at home one night when a sectarian assassination squad broke in and shot him nine times at point blank range with an AK-47. I guess because it was dark and he kept twisting and jumping, no bullets penetrated any vital cavity or caused a fracture. He essentially had 18 flesh wounds (you could count every entry and exit wound). Someone called him "the luckiest man in Iraq" that night. We later found out the rest of his family was not so lucky: all eight of them had been murdered.

The majority of Iraqis were glad we had liberated them from Saddam Hussein. Maybe they were just saying that, but most fought hard for their newly won independence, as evidenced by the number of casualties they were taking. I found out we only saw a small fraction of the Iraqis who were wounded in combat; the other civilian hospitals in Baghdad were swamped. We knew this because sometimes Iraqi doctors would risk their lives to come visit us and we would have an exchange of ideas. I spent a lot of time talking with the Arabic interpreters. It was amazing to hear (firsthand) about the atrocities perpetrated by Saddam and his secret police on the people there. I saw the hardships the people were facing, and I knew

how much they wanted freedom; I respected their courage in the face of seemingly unending violence. I wondered if I would have had the same moral fortitude if I were ever in a similar situation.

Incredible Assignments. I was honored to participate in some incredible assignments while I was deployed. For example, I did some limited work with an intelligence service. My role was to be available to treat gynecologic conditions of the wives or daughters of some Iraqis in return for information. I don't know if anything productive came out of it, but I was glad to utilize my unique skill set and feel like I was actually making a contribution (that may have averted attacks and ultimately saved lives). One time I coordinated surgical care for a small girl whose arm function had been compromised by scar tissue caused by shrapnel fragments. The plan was to coordinate a video conference with a plastic surgeon in the United States or at Landstuhl Regional Medical Center and a general surgeon at Ibn Sina. We planned to devise a series of staged operations to reduce the scar tissue and restore as much function to her arm as we could. I felt this was true humanitarian work as we were going to provide a level of care that was unavailable otherwise. Unfortunately, the surgery never happened. It was unclear to me why, but at the last minute, the deal was called off.

In another opportunity, several other soldiers and I worked with a chaplain to be ecumenical ministers. We were blessed with good chaplains. These were some lessons I learned from them: God does not love you because of who you are, He loves you because of who He is. Also, God will never put you anywhere He cannot protect your soul. These were comforting to me.

One of the most the memorable events of my deployment involved the birth of a baby over the Christmas period. One night during this time, I was walking through the ER to pick up an allotment of bottled water when I heard there was someone delivering a baby at the checkpoint in front of the hospital. I grabbed one of the medics and a first aid kit and took off running. When I arrived at the checkpoint, the guards were surrounding the car and there was a lot of confusion and shouting. I managed to look into the car and I saw what looked like a pregnant woman in the back seat behind the driver. I pushed some people aside and opened the door just in time to literally catch the infant she was delivering. I scooped the baby boy up in a small blanket and realized I had nothing to cut or secure the umbilical cord with. I told my medic to take the laces out of his boot and cut two sections for me. He looked at me quizzically but did it anyway. I tied off the cord distally and proximally with the laces and used the medic's knife to cut it in between. I think the checkpoint guards' tensions were finally lowered when they saw the baby. It was a very cold night in Baghdad, so I took the infant back to the ER where they had a warmer set up. There were several nurses there by that time, as there was a lot of interest in seeing the infant. The infant was then left in good hands, and we brought a stretcher out to the mother and transferred her to the ER, where she delivered the placenta without complication. She had no medical problems, and I found out that was her third baby.

The next day I checked on the patient who had given birth the night before. After speaking with her husband, I learned that they lived in an apartment in the Green Zone, and because of the late hour they could not get out to her obstetrician in Baghdad. They were very grateful for the care we gave her. When I asked what the infant boy's name was, they replied, "Jesus." I had to ask why an obviously Muslim family would name their baby Jesus, and they replied that Jesus is a name in the Quran. They regarded Jesus as a knowledgeable scholar, and because he is listed in the Quran, it was perfectly okay to name their son Jesus. In fact, his two brothers were named Abraham and Muhammad, so I guess it makes sense that Jesus would be next.

[Figure 3.22]
Colonel Edmund Higgins, MD, gynecologic surgeon, 28th Combat Support Hospital in Mosul, Iraq, January 2007. Photograph courtesy of Colonel Edmund Higgins, MD.

The story of "baby Jesus" made the division newsletter, and I think it was a ray of hope for the future in an otherwise challenging environment. I was fortunate to be a part of the uplifting event, as were the nurses involved. It was an opportunity for me to use my obstetric and gynecologic surgeon skills as I contributed to our humanitarian mission.

In January 2007, a number of the providers, support staff, and I deployed to Mosul, Iraq (Figure 3.22). The plan was for us and a co-located FST team to take over the medical support mission from another unit there. Unfortunately, it was challenging to gain support for our proposed timeline for change of responsibility, possibly because the operational tempo in Mosul was very slow. This leadership was also challenged with creating a positive environment for this transition. When we spoke with 28th CSH leadership, we reflected on how it seemed like we were being set up for failure. Their response was a good one: "You cannot choose your leaders."

In Mosul, we would go days without seeing a casualty. After Baghdad, it honestly felt like a holiday. I saw more clinic, worked out a lot (usually 3 to 4 hours, 5 days a week), and volunteered to do some air evacuations. On 20 January 2007, an American helicopter with a senior physician (Colonel Brian D. Allgood) was shot down by enemy fire over Baghdad, killing everyone on board. Colonel Allgood was a highly respected Army orthopedic surgeon and commander, who selflessly served and set the example for others to follow. He had commanded at the 18th Medical Command, 121st General Hospital, in the Republic of Korea, and Keller Army Community Hospital at the US Military Academy at West Point. On 12 October 2007, Colonel Allgood was interred at Arlington National Cemetery in Arlington, Virginia, with full military honors. On 20 September 2019, the Army renamed the 121st in his honor as the Brian D. Allgood Army Community Hospital.

Subsequently, medical evacuation opportunities opened up for me. I flew three air evacuation missions, transporting head trauma casualties to Camp Speicher. All of the casualties were Iraqi. Flying in the dark and following the contours of the hills was a memorable experience; that was one of the most amazing missions in which I was privileged to participate.

Fortunate. It was an honor to serve with the personnel in my unit, and I felt very lucky. In some ways it made me a better doctor, and I think all gynecologic surgeons should deploy. I felt like I was part of a greater plan and team, and I was impressed by the entire spectrum of medical care I was able to experience. That included the efficient and effective medical care delivered by my colleagues who were at the top of their game. I don't know if my deployment made me a better person, but I feel like I appreciated life and my family more. I feel like my (short) time in Baghdad earned me "the right" to wear the uniform and I will forever respect the sacrifices made by our soldiers, the Iraqis, and our allies. I wanted to deploy again,

but to Afghanistan. I would have loved the opportunity to go out with a Special Forces team for a 4-month medical and humanitarian mission, but the opportunity was never available.

We (the 28th CSH physicians) were all reunited at Camp Ali Al Salem in Kuwait at the end of our 6-month deployment. The thoracic surgeon had his wife send desert brown baseball caps marked with "28 CSH" for all of us, which was nice. It was great to see everyone again—and most for the last time.

LIFE AFTER DEPLOYMENT

Edmund Higgins, MD, retired as a colonel in January 2019 after 20 years of service. Some of his assigned duty stations included Landstuhl, Germany; Fort Bragg, North Carolina; Scott and White Medical Center (for fellowship training) in Temple, Texas; and Fort Hood, Texas. In January 2019, he started the urogynecology service at Central Texas Veterans Health Care System in Temple, Texas, to improve the gynecologic surgical care of our aging female veterans. He also serves as Baylor Scott and White residency program teaching faculty for gynecologic surgical residents and is extremely grateful and blessed for the many amazing opportunities he was afforded while serving in the Army. As a "naturalized" Texan, he has lived in Belton, Texas, since 2013 while stationed at Fort Hood and continues to live there since his retirement.

MAJOR HOWARD L. CURLIN, MD

Major Howard L. Curlin, MD (Figure 3.23), served as battalion surgeon, officer in charge 703rd Base Support Battalion, 4th Brigade Combat Team, 3rd Infantry Division in Kalsu, Iraq, during Operation Iraqi Freedom from October 2007 to December 2008.

UNIT AND OPERATIONAL BACKGROUND

703rd Base Support Battalion, 4th Brigade Combat Team, 3rd Infantry Division

The 703rd Base Support Battalion (BSB) was responsible for providing logistic and medical support for 4th Brigade Combat Team (4BCT), 3rd Infantry Division (3ID), and the attached units. The 4BCT was part of Multi-National Division Central, a new command established south of Baghdad as part of the 2007 troop surge. The unit's main area of operation was Babil Province, where the brigade's mission was to degrade the presence of extremists in Iraq's south-central "Triangle of Death." Once area security was established, the unit transitioned to a weightier role of training the Iraqi Security Force. The Babil Province became the 12th province to be handed back over to Iraqi control toward the end of my deployment in October 2008.

Our Role 2 aid station cared for and provided medical support for Forward Operating Base (FOB) Kalsu, and we provided primary care to approximately 3,000 people. During the deployment, our medical company performed multiple 1-day medical clinics in various towns. This effort was in direct support of our combat units that were attempting to establish a presence and build rapport with local communities; I was involved with two of these medical clinic missions.

[Figure 3.23]
Major Howard Curlin, MD, battalion surgeon, in Kalsu, Iraq, 2007. Photograph courtesy of Major Howard Curlin, MD.

Life on the Forward Operating Base. My life was "FOB-ulous." For those who do not know what a FOB is, it is a large, walled-off base where most

troops live and operate out of. As a service support unit, many of our soldiers would never (or rarely ever) leave the FOB and might spend their whole deployment without seeing or experiencing the situation in Iraq. Their experience would be FOB life. This includes four meals a day in a first-rate dining facility, a nice gym, a basketball court, a sand volleyball court, and a morale and welfare tent that had ping-pong, foosball, pool tables, video games, television, books, magazines, and poker tournaments. (You get the picture—it was not quite as austere as it could have been.) What reminded me the most of the fact that we were in a place of conflict were the large concrete barriers surrounding everything and the daily sound of outgoing artillery fire.

I recall the evening of our first combat casualty trauma patient. The resuscitation went well, and the last update we received was that our patient was stable in Germany, which was good news for our efforts. However, the fact that many, including me, had never before faced caring for those kinds of massive traumatic injuries tended to loom in front of our team. We wondered how we would do when that hurdle came again. Most of the cases I saw and treated were things I would have seen if I were a family practice or emergency medicine physician. I later laughed with my colleague, a family practice physician, by saying I felt like I was doing my family practice residency while I was deployed.

I recognized that I was not a very good resource for orthopedic injuries and some other primary care matters, but I always tried my best to make wise choices. We have to work on maximizing our strengths and minimizing our weaknesses. I was thankful for my obstetric and surgical training because I believed it would serve me well if confronted with hemorrhage and unstable patients. I needed to review burn treatment, and I knew that UpToDate (a subscription-based medical resource designed to provide physicians access to current clinical information) would be my friend.

Brigade Casualties. Our brigade went through several tough weeks during which we had quite a number of casualties (which was always sobering). A soldier was killed in action, and we felt this loss acutely because the soldier was dating one of our company medics. I must admit, however, that most of the violence seemed somewhat distant. I mentioned we regularly had artillery fire, but it was very uncommon to hear any explosion or gunfire outside the FOB. Soldiers responded to that environment in very different ways. Some were thankful to be on the FOB without ever (or rarely) seeing any effects of the war. They also had no real desire to see Iraq or meet Iraqis. Others, including me, wanted to be more involved. It is hard to describe the feelings I had while listening to radio traffic coming in after soldiers from our brigade or FOB had been injured on a mission or patrol, knowing they would be treated on the battlefield by medical professionals there, and then evacuated to Baghdad (that was the best option for our wounded soldiers). The medical evacuation system developed there was outstanding, and it allowed our wounded soldiers to receive definitive care very quickly. I knew caring for soldiers during sick call like I was doing was important, but I also wanted to help care for those with battle injuries.

Dinner With Friends. While sharing a meal with some Iraqis, I noted there weren't any eating utensils available—everyone was using their hands. I asked them if there were times when they would not allow someone to eat with the family or group due to the guest having an illness. They said maybe if the guest had an illness such as influenza. I asked, "What about diarrhea?" They looked at me and said, "Why?" I explained that illnesses like diarrhea can be passed from contaminated hands to the mouth. They looked at me surprised and said, "Don't people wash their hands?" I laughed and said, "Yes, usually." They then said they would usually not worry about that.

Dust. The dust there was unlike anywhere else I had ever been. It was very fine, and seemed to be everywhere and get into everything. After we dusted and mopped our aid station, there was still a layer of dust on the counters and the equipment, and by the end of the day everybody's hair had a gritty texture to it. People warned me that when rain came the dust would take on a peanut butter consistency and stick to everything, and it *did*.

Sick Call. We continued to see a lot of colds, rashes, gastrointestinal illnesses, ankle sprains, lacerations, and patients with back or knee pain. One of our trauma patients sustained a sports injury (a dislocated elbow) while playing basketball. I labeled the basketball court as "more dangerous than an IED," as there were quite a few basketball-related injuries.

At that time, I felt like my team was working well together. We were waiting for better plumbing and communication capabilities (such as a telephone), but we were beginning to get into a rhythm and planned to start more classes to train the medics. I hoped the training would be fruitful for the medics and meaningful for the providers. We also constantly continued to run through trauma drills.

There was always a mix of emotions: wanting to do what we were there for—which was maintaining the fighting force by treating trauma and injuries—and being thankful that we did not have to take care of serious trauma cases very often. We always tried to remain ready, though. We rehearsed scenarios. I trained medics in new skills, and I continued my own medical education. Then we all waited. One never knew when the next urgent or serious patient would come through our doors.

Helping the Iraqi People. I want to share some thoughts about policy decisions that were being made that I found interesting. Most of this was secondhand because my experience had primarily been confined to the FOB and medical care for those on it. However, I had several conversations with my brigade surgeon, members of the provincial reconstruction teams, and personnel involved in civilian affairs who noted one of the challenges faced among all these people and commanders was the "how" part of helping the Iraqi people. Unfortunately, the provincial reconstruction teams and various unit

commanders sometimes disagreed on matters. For example, a reconstruction team worked with an Iraqi non-governmental organization (NGO) that was funded by the United States. However, the NGO employed Iraqis and worked with the Iraqi Ministry of Health to establish clinics, ensured there was appropriate staffing and funding, and saw that the clinics were appropriately placed to avoid an overlap where care was already available. This work involved Iraqis and created infrastructure and a system that would continue when we (US forces) left. All of that would take time and wouldn't be a rapid process. But most Americans don't like to wait very long; we like to see results quickly. Some commanders wanted immediate results or received pressure from above to show results; however, each unit was there only 12 to 15 months. In many instances, a commander would decide to build a clinic in their area of operation and stock it with supplies—and hopefully find an Iraqi doctor who would work in the clinic. Then pictures were taken, and people were told, "Good job," and everyone was excited. However, if the process was not coordinated through the Iraqi Ministry of Health, it would not be seen as sustainable, which sometimes scared off the NGOs working in the region. It even had the potential to create unrealistic expectations and resentment when we left Iraq if we could not meet Iraqi expectations.

Deployment Challenges: Depression and Anxiety. Before I deployed, several people told me soldiers go through challenging periods as their deployment progresses; more cases of depression or anxiety are seen and unprofessional behavior at times could become an issue. This period usually occurs at the 3-month mark (because by that time, they had been there a while and realized how long there is still to go); at the 6-month mark (because they had been there a long time and there was still no end in sight); and at the 12-month mark (because soldiers had been there so long they felt like they should be home, but still had 3 months to go). This description may be slightly oversimplified, but it made sense to me. (When we passed the 3-month point in our deployment, I definitely saw some issues come up with our soldiers who had previously been more restrained.)

I continued to serve at our aid station with our other providers and medics, and continued teaching classes to the medics. We were thankful we did not have a lot of trauma cases, but we also had to keep practicing to prevent complacency, as there was always the potential for casualties.

We had a rocket attack on the FOB, and thankfully no one was injured. The attack occurred early in the morning, when I was in our command post tent next to our aid station reading a book. I remember hearing the rush overhead and wondering if it was the sound of incoming mortars or rockets that people had described to me. Sure enough, it was. It landed about 100 to 200 meters from us but did not detonate.

Deployment Milestones. After about 5 months into my deployment, I began to reflect on my deployment milestones. By that point I had less than 5 months to go until I would have my rest and relaxation (R&R) time. Many of us used different milestones to help keep the time we had left in perspective.

Many brigades spent anywhere from 36 to 45 months deployed over 6 years (2001–2007). Of course, that does not mean all the individuals in the brigade were deployed the whole time, but many people in my brigade spent more than 3 years away from their families (within those 6 years) by the end of our deployment. I honestly could not imagine it. Most of my medical colleagues typically deployed for 6 months at a time, and only a few I knew had gone for a third tour. I experienced some nostalgia when I thought about friends who deployed at the same time as I did, but with the CSH in Baghdad. They were (at that time) just a few weeks away from returning to their families as they wrapped up their 6-month tours.

Humanitarian Missions. I was involved with a couple medical missions that were essentially humanitarian efforts to help spread goodwill as we worked to build rapport with the local Iraqi people. Those missions also provided us with the opportunity to obtain a rough estimate of the community's health situation and assess its preventive medicine needs. We were not able to do a lot medically; we saw multiple chronic medical conditions and some others that would eventually get better regardless of what we did. We ended up handing out a lot of nonsteroidal anti-inflammatory medication and hydrocortisone cream but did see a few infectious cases that we were able to treat. It reminded me of my experience with short-term medical mission trips, where the patients who seemed to have the most long-term physical benefit were those with problems that could be corrected surgically. Surgical and dental teams were able to go in for a short period of time and had a significant impact on people's lives. Many of the nonsurgical medical issues benefited from improved community health instead of medications.

I will share an example from our first mission: We arrived at the school where we would be working, and I commented to another person on the team that it smelled like a zoo. I quickly found out why. I rounded the corner looking for the latrine, and what I found truly shocked me. There was a small hallway leading to an anteroom in front of three small rooms that were the latrines. The latrines there were typically just holes in the floor, and each latrine's hole was filled up to the brim with excrement, the floor of each latrine was covered in excrement, the anteroom floor was covered in excrement, and the little hallway was covered in excrement. I had no idea how often the area was cleaned, but it certainly had not been for several days because of the obvious differences in how old the excrement was. This same community had serious issues with obtaining clean water. What they needed (more than a few doctors showing up) was some significant training and assistance in improving sanitation and their water supply.

I am not sure of the strategic value of those missions, but I did find them interesting from a cultural standpoint. The kids were almost always a delight to see and joke with. Most of the people seemed appreciative, even when we explained there wasn't anything we could do. However, they usually really wanted something, even if it was just some acetaminophen or vitamins. Many of the men complained of "kidney pain," which was usually low back pain. Many also complained of "fever in their legs," headaches, and various other aches and pains. Ironically, considering my specialty, I ended up seeing most of the men because we had a pediatrician seeing the majority of the children and a female provider seeing most of the women. There seemed to be a high prevalence of erectile dysfunction and preoccupation with it. Having not taken care of men for years back home, I was not sure if the issue was more common in the United States than I was aware of.

One of the most poignant moments of my deployment occurred when I was helping care for a 2-year-old boy who had second-degree burns over his whole abdomen, part of his neck, and his arm after pulling a pot of hot tea off a table. The interpreter who was helping me was someone I had not worked with before (although I had heard good things about his work and English skills from others); he was very helpful and did a good job interpreting for me. After we were done caring for the boy, we watched the medics help the boy and his father into a vehicle that would take them back to the gate. This interpreter turned to me, grabbed my hand, and said with an earnest look in his eyes, "Sir, thank you so much for what you have done. America has done so many amazing things for Iraq. You continue to do amazing things, especially these humanitarian cases." A sad look then came over his face as he told me how disappointed he was that this patient and his family had not been able to be cared for in an Iraqi facility.

When he expressed his appreciation, I became emotional for a few seconds. I wondered about that afterward and I think it was because that was one of the few times, if not the only time, that I had an Iraqi express appreciation without any sign of desiring something in return. The sad thing for Iraq was that so many men like him wanted to leave the country (and would leave) if they could get a visa or green card, leaving fewer dedicated leaders.

We later lost one of our PAs when he was transferred to another small FOB we had created since we deployed. That loss increased the workload a little for everyone else. We continued to go out periodically and provide medical care to some of the more remote and poorer areas. The most pressing issues for the Iraqis still seemed to be the lack of clean water and the effects of poverty. Many of the people I met (who had illnesses or problems) had already been seen by a physician who made a reasonable recovery plan for them, but they could not afford to pay for it. The level of surgical care also appeared to be suspect at times based on my limited exposure to those who received surgical care, or those who had it recommended.

Behavioral Health Challenges. A sad challenge we faced was a noticeable increase in the behavioral and mental health issues the units came to expect as we approached our halfway point. It required a great deal of time and effort to deal with those difficult situations. Deployment is a crucible that some service members found difficult to manage. Most people found a way to deal with the stressors in a nondestructive way; however, a significant minority turned to substances, unhealthy relationships, or even thoughts of harming themselves. Sadly, we had a suicide on our FOB.

Back from R&R. I arrived in Baghdad after my R&R and stayed there for 4 days and worked at the 86th CSH in the International Zone. Being in Baghdad was such a different environment than Kalsu, which was very rural. In Baghdad I never left pavement; at Kalsu there was essentially no pavement. All the CSH physicians were very helpful. I had the pleasure of operating with general surgeons, urologists, and orthopedic surgeons on a variety of cases. That was my second trip to the CSH, as I also had the opportunity to go in July (of 2008) for a week. Both times I remained very busy performing or assisting with quite a few cases. I was thankful for the time I was given to periodically work at the CSH. The interaction with colleagues was mentally stimulating, and the opportunity to get into the OR helped keep my surgical skills sharp (there was no OR capability at the aid station where I primarily worked).

Tragedies. Toward the end of the deployment, everyone experienced the anticipation of returning home while trying to stay busy with the many tasks remaining before leaving. Sadly for some, the thought of returning home produced a great deal of anxiety, pain, and anger if they were dealing with strained or broken relationships due to the deployment.

I experienced joyful moments but also had two very sad moments during my deployment. I was awakened early one morning by one of my medics to perform the death pronouncement on a soldier who had committed suicide on our FOB. I quickly grabbed my stethoscope and a small flashlight, and we drove to the location where the MPs were guarding the entrance to the soldier's living quarters. I felt a little nervous. Receiving someone in the aid station with severe wounds and then trying to render care felt very different from going to someone's quarters knowing there was most likely nothing you could do for them medically. It was a much more intimate environment. I was saddened when I looked up for a moment as I went through the necessary steps to make the pronouncement because, there on the wall next to the soldier's bed, were pictures of him with his two small children.

I was very glad I went to his memorial service several days later. I had only known him in death, but the memorial service allowed me to see a small window into his life from the perspective of his fellow soldiers and command. If you have never been to a military memorial, it is hard to hold back the tears when the final roll call is performed, followed by the firing of volleys and the sounding of taps.

I won't go into detail about the other tragedy. Know that in the midst of all the hard work and dedication of so many, there were those who were struggling and hurting. Thank you for all those who prayed for us while we were there. The medical work continued to go fine, and I had the opportunity to work at the CSH in Baghdad again, which was rewarding.

THOUGHTS ON DEPLOYMENT

Deploying with a combat brigade was a unique life experience I am thankful for having. However, professionally, and as a gynecologic surgeon, I would have preferred to have deployed as part of a CSH so I could have performed more gynecologic and surgical care. My preparation was adequate, but not ideal. I definitely felt I was properly utilized given my circumstances. In fact, I was originally slotted to be the battalion surgeon for the cavalry squadron in our brigade. However, when my brigade commander realized I was a gynecologic surgeon, he moved me to the BSB. I was a little disappointed initially, but he made the right call because almost all the women in our brigade were in the BSB or brigade headquarters. There were many female contractors on our FOB for whom we had the responsibility of caring.

I had only limited opportunities to function as a general surgeon or assistant to a general surgeon. I functioned in that role only when I would visit the CSH for a few days at a time. I felt adequately prepared to assist based on residency training and my own experience as a gynecologic surgeon. I also think the experience I had was beneficial in my role as a gynecologic surgeon; for example, I later felt more comfortable performing appendectomies because I had the opportunity to perform a number of them in Baghdad.

One limitation was that I did not have a colposcope available to me. Having one would have saved trips for a number of soldiers who had to leave the FOB and travel to Baghdad for colposcopy procedures. I did have an ultrasound, which was very helpful. At the Role 2 aid station, I was able to provide basic ambulatory obstetric and gynecologic care. I took care of a pregnant Ugandan woman (a contract worker) from approximately 6 to 20 weeks' gestation while her return to Uganda was being coordinated. I generally had adequate medications but was limited in lab availability. (We were unable to perform quantitative beta-hCG testing.) There were essentially no surgical capabilities other than skin biopsies, incisions, drainage of small abscesses, and basic wound care.

LIFE AFTER DEPLOYMENT

Colonel Howard Curlin, MD, transitioned to the US Army Reserve in 2015 and joined the faculty at Vanderbilt University. At the time of publishing, Dr Curlin serves as an assistant professor in the Department of Obstetrics and Gynecology at Vanderbilt University Medical Center in Nashville, Tennessee. His clinical focus is minimally invasive gynecologic surgery, and he serves as the director of Simulation and Surgical Education for Gynecology. Dr Curlin considers it a privilege to continue his service in the US Army Reserve at Blanchfield Army Community Hospital at Fort Campbell, Kentucky.

COLONEL ARTHUR C. WITTICH, MD

Colonel Arthur C. Wittich, MD (Figures 3.24 and 3.25), served as gynecologic, flight, and brigade surgeon, 1st Combat Aviation Brigade, 1st Infantry Division, 345th Combat Support Hospital at Contingency Operating Base Speicher in Tikrit, Iraq, during Operation Iraqi Freedom from June 2008 to November 2008.

UNIT AND OPERATIONAL BACKGROUND

345th Combat Support Hospital, 1st Combat Aviation Brigade, 1st Armored Division

[Figure 3.24]
Colonel Art Wittich, MD, gynecologic surgeon with the 345th Combat Support Hospital in Iraq, 2008. Photograph courtesy of Colonel Art Wittich, MD.

[Figure 3.25]
Colonel Art Wittich, MD, in front of an ambulance in Iraq, 2008. Photograph courtesy of Colonel Art Wittich, MD.

The 1st Combat Aviation Brigade (1CAB) was responsible for all Army aviation in northern Iraq, and it supported the 1st Armored Division (1AD). The 345th CSH was a reserve hospital that supported brigades (BDEs) of the 1AD; 101st Airborne Division 1CAB of the 1st Infantry Division (1ID), or Big Red One; an engineer brigade; a special operations intelligence joint task force; and a Special Forces unit called Task Force Iron, which was commanded by the 1AD commanding general.

Flight Surgeon. In 2008, I was called and told a flight surgeon was needed in Iraq to replace a flight surgeon who had to be redeployed. I said I would be happy to go; however, I had not practiced flight medicine since the Black Hawk helicopters began operations. I was told this was not a problem because there would be PAs who were aware of the current requirements.

Brigade Surgeon and Gynecologic Surgeon. I deployed through the Continental United States Replacement Center at Fort Benning, Georgia, and then transitioned through Kuwait facilities. I finally arrived at Contingency Operating Base (COB) Speicher at Tikrit and was picked up by an enlisted soldier who took me to the 345th CSH. I then met with the deputy commander for clinical services (DCCS) and informed him of my assignment to the aviation BDE. I was then picked up by the deputy commander of the 1CAB, who then took me to the BDE commanding officer.

I had an excellent master sergeant to assist me as I began my duties as the BDE surgeon. I was responsible for four aviation battalions, and each had a flight surgeon and a PA. Several days after arriving, while I was at the CSH visiting a wounded BDE troop, the DCCS told me I was credentialed to come and assist with surgery at the CSH.

During my 6-month tour, I served as the BDE surgeon for 1CAB and worked as a surgeon at the CSH. Both units had a superb group of professionals, military aviators, and military (Army Reserve) surgeons. Both units were extremely busy. The CSH was the only CSH in tentage in Iraq, and it had two ORs. We could use the two tables in each OR, but that was necessary only one time during my tour. We took care of wounded soldiers from the 101st Airborne Division, 1AD, Special Forces soldiers, US Marines, as well as Iraqis—both military and insurgent.

As the aviation BDE surgeon, I supervised the battalion flight surgeons, PAs, and medics; I had a good group that did a great job in taking care of the soldiers. They were under the battalion commanding officer, so they were organic to their units. As a surgeon at the CSH, I assisted other surgeons: one general surgeon, one cardiothoracic, and one orthopedic surgeon. All were Army Reserve officers, including two who were university medical school faculty and one who was a Veterans Administration surgeon. I performed laparotomies, amputations, removal of fragments and bullets, colostomies, removal of cysts,

washouts, and laceration repairs, as well as treating dog bites sustained by Iraqi insurgents from our military working dogs.

I also saw gynecology patients and performed several laparotomies for acute hemoperitoneum, performed culdocentesis twice, and oversaw the redeployment of pregnant soldiers. One of our general surgical cases became a published case report. It concerned a young Iraqi girl who became an instant orphan when she, her parents, and older brothers were shot while they were making bombs. She miraculously survived after 33 surgeries and lived with only a foot drop and a colostomy.

The Special Forces did a great job operationally and loved what they did, but they also took care of our wounded enemies and brought them to the CSH. The Special Forces sergeant first class who led the raid on the mission where the little girl was wounded was brought in several weeks later. He had sustained gunshot wounds during a door-kicking raid. He had surgery, was transferred to the Landstuhl Regional Medical Center in Germany, and then evacuated back to Fort Bragg, North Carolina.

It was a good—no, a great—tour, and I would do it again had the opportunity availed itself. As a military physician, rarely do we have the chance to care for battle-wounded American soldiers, go on helicopter insertions, and be in helicopters with guns blazing with tracers in the area. Our Soldiers and Marines deserve only the best medical care we can offer. Again, it was truly an honor to serve in OIF as a BDE surgeon and as a CSH surgeon. I was blessed.

I had a positive experience; I performed 33 major surgeries, and served as a gynecologic surgeon and flight surgeon to a great group of soldiers.

Remember to do a good job, and remember you are a military officer and a leader.

LIFE AFTER DEPLOYMENT

Arthur Wittich, MD, retired from the Army as a colonel in November 2015 from Fort Belvoir, Virginia, after a total of 50 years of military service. He served 44 years in the Army Medical Corps and 6 years of enlisted service in the US Navy, which included 3 years as a Hospital Corpsman at the Philadelphia Naval Hospital. At the time of his retirement in 2015, Colonel Wittich was the oldest soldier in the Regular Army. For the last 4 years of his service, he cut the Army Birthday cake at the Pentagon as the oldest soldier with three different Chiefs of Staff. He continues his service as a civilian through annual surgical missions to the Philippines (twice), Africa, South America, and Central America.

MAJOR MICHAEL SMYTH, MD

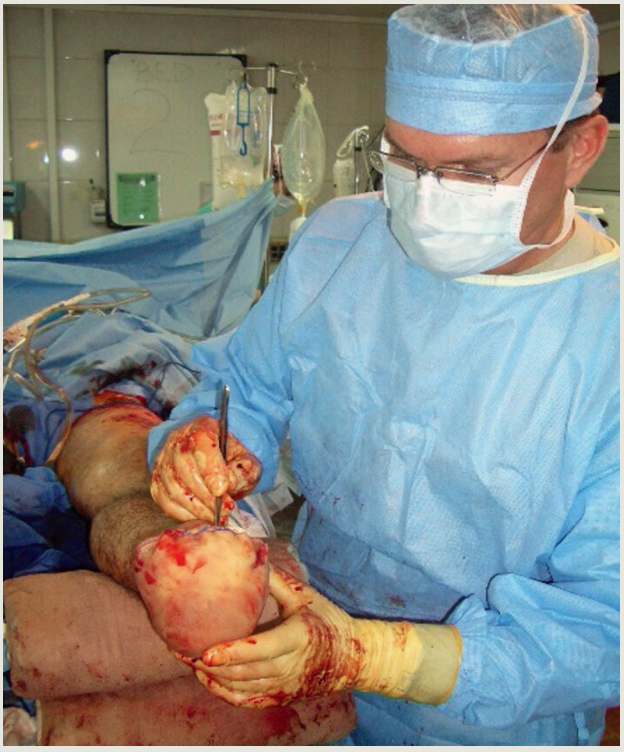
Major Michael Smyth, MD (Figure 3.26), served as a regimental surgeon, 3rd Armored Cavalry Regiment, Regimental Support Squadron, Forward Operating Base Marez in Mosul, Iraq, during Operation Iraqi Freedom from November 2007 to January 2009.

UNIT AND OPERATIONAL BACKGROUND

3rd Armored Cavalry Regiment

Our mission was to give medical support to the troops of Forward Operating Base (FOB) Marez, the American and Iraqi civilian contractors, and the injured Iraqi Army soldiers and police, while providing mass casualty support to the combat support hospital (adjacent to our FOB) and medical training for the medics who supported convoy missions.

Best and Worst, Easiest and Toughest. By far, deploying was the scariest thing I did in my 24 years with the Army, as compared with my normal duties (ovarian cancer staging, clomid challenge tests, and magnesium levels for preeclampsia, etc). Going to a war zone as a gynecologic surgeon was extremely challenging. I functioned as a primary care provider, set up and ran an aid station, trained medics, and planned mass casualty events and disaster scenarios—without hurting anyone along the way. The best advice I received after leaving my residency was if you want to stay out of trouble, surround yourself with good, smart people. Fortunately, my staff was just that—they made me and the medical support unit look reallyrgood. It was the best and worst yet easiest and toughest year of my career.



[Figure 3.26] *Major Michael Smyth, MD, regimental surgeon, 3rd Armored Cavalry Regiment, Forward Operating Base Marez, Mosul, Iraq, 2008. Photograph courtesy of Michael Smyth, MD.*

[Figure 3.27]
Major Michael Smyth, MD, with an Iraqi pediatric patient in Mosul, Iraq, 2008. Photograph courtesy of Major Michael Smyth, MD.

Pediatric Clinic. Through the assistance of the special operations soldiers, we were able to set up a pediatric clinic where the local people could bring their sick and wounded children to us; at the clinic, they received much-needed medical care (Figure 3.27). Their (the Iraqi) misconception was that "Western medicine" could cure almost anything. We saw kids with tetralogy of Fallot; severe contractures from burns; and a massively disfiguring giant nevus that covered the arm, back, and face of a 6-year-old girl—who still smiled for our camera (I'm assuming because nobody ever gave her such attention before).

Our Role 2 aid station was positioned on a FOB in a city that was said to be the "final stronghold" for Iraqi insurgents. We logged just over 10,000 patient visits that year, and with the exception of two fingertips that were lost in a generator accident, every soldier who came through our clinic went home with their arms, legs, and eyes intact. That is what made it the scariest year of my career—waiting for that first major trauma. . . .

Primary Care and Surgical Care. My role on this deployment was as a primary care provider; therefore, my preparation mostly involved refamiliarizing myself with cases I had not seen or heard of since medical school. However, I had assistance from a more than capable staff who were primary care providers. As a team, I think we ran an incredibly efficient medical department. We were very overstaffed for most of the deployment, which (I suspect) was for contingency issues.

Even though the CSH on the adjacent FOB was fully staffed, I made it clear to them that I was always available to assist with any surgical cases they had. I assisted in exploratory laparotomies, amputations, and debridement surgery, as well as many other procedures at the CSH throughout the year. My experiences assisting in those trauma cases were invaluable. All of us who deployed and had that exposure would probably say they are better, more rounded surgeons now. How many of our civilian counterparts can claim this?

We had a Role 2 aid station that was equipped for primary care, basic resuscitative care, and basic resuscitative trauma. We did not provide any obstetric care, and we saw very few gynecology cases; therefore, equipment, medications, and the labs we had available to us did not place limitations on the care we were able to provide.

LIFE AFTER DEPLOYMENT

Michael Smyth, MD, retired in 2009 as a colonel after serving 24 years in the Army. Dr Smyth is an obstetrician-gynecologist in Columbia, South Carolina, and is affiliated with Our Lady of the Lake Regional Medical Center. At time of publication, he works at the Columbia Veterans Affairs Health Care System in Columbia, South Carolina, where he continues serving our country's Veterans.

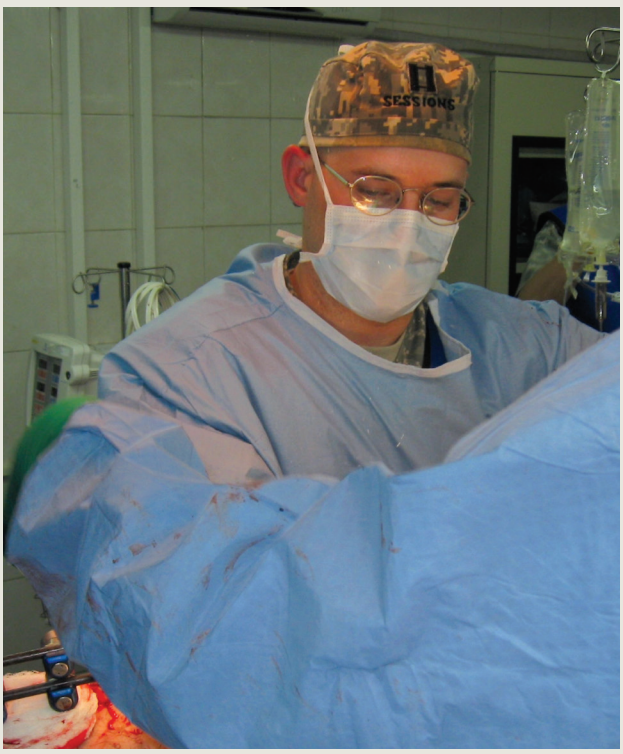
MAJOR DANIEL SESSIONS, MD

Major Daniel Sessions, MD (Figure 3.28), served as gynecologic surgeon and officer in charge, outpatient clinic, 47th Combat Support Hospital in Mosul, Iraq, during Operation Iraqi Freedom from February 2009 to September 2009.

UNIT AND OPERATIONAL BACKGROUND

47th Combat Support Hospital

Primary Care. I was assigned as the officer in charge of the outpatient clinic (providing nonemergent primary care) with the 47th Combat Support Hospital (CSH). I handled the clinic's day-to-day operations and supervised the medics and mid-level providers. As I was not formally trained in general practice medicine, I found that assignment to be challenging at times. I had to study and look things up every day, and I learned a lot from the midlevel primary care providers. However, we would "close up shop" whenever we had a trauma so that we would have all surgeons, nurses, and medics available for resuscitative care.



[Figure 3.28] *Major Daniel Sessions, MD, gynecologic surgeon, at the 47th Combat Support Hospital, Mosul, Iraq, 2009. Photograph courtesy of Major Daniel Sessions, MD.*

Unique Surgery. One trauma case I had specifically stands out because of its unique nature. Two soldiers and a military working dog were injured in a firefight, and obviously, the soldiers were treated, stabilized, and rushed to the OR. Once that was in motion, attention was then turned to the injured and unstable dog, which had been shot in the chest. Military working dogs are highly skilled and an essential part of combat; therefore, the veterinarian was called and promptly

arrived with a "dog trauma box." The box had two units of synthetic hemoglobin (not approved for human use) and a card with all the appropriate dosing regimens (of anesthetics, opioids, etc) for canines.

Once our cardiovascular surgeon received the command's approval to operate (required for using resources on a military working dog), a portable trauma bed was set up outside the OR due to the possibility of cross-contamination, and bilateral chest tubes were placed in the dog. A large-volume hemothorax was noted on the dog's right side, and I was asked to assist with an immediate thoracotomy. After several wedge resections of the lung, we found the source of bleeding, which was a large vessel in the dog's very muscular chest wall. Throughout the case, the dog's oxygen saturation values were monitored by a digital scanner we placed on its tongue, as there was nowhere else it would properly work on the dog's body.

While we were operating, the desperately needed units of fresh whole blood kept arriving for the dog, and it wasn't until after we finished the case that we learned the details of the source of the blood and the remarkable events that had been taking place in the ED trauma bay. Based on the expertise of our veterinarian, he informed us dogs do not need a blood type and screening with their first blood transfusion. During surgery, a junior medic had the idea of calling the military working dog's unit and asking everyone to bring their dogs to the CSH to be blood donors. They did, and subsequently, each dog contributed a unit of blood. At one point, every gurney in the ED was occupied by a dog and their handler with a unit of blood collecting in a container on the floor. That lifesaving event provided the time (and blood) we needed to find the dog's source of bleeding so we could control it.

It was an honor to serve our deployed soldiers, even as the clinic chief, which definitely removed me from my comfort zone at times. Whenever I had an issue I could not figure out or if I needed a consultation from one of my colleagues, they were right there ready to assist me. I was privileged to deploy with so many committed individuals, and I made friendships that will last a lifetime.

THOUGHTS ON DEPLOYMENT

If I deployed again, I want to go attached to a CSH, as I believe that is where my unique capabilities as a gynecologic surgeon could be best utilized. I regularly took care of gynecologic consultations, especially early pregnancy. I felt like I was adequately prepared for our mission, and I had the distinct honor to regularly assist our orthopedic surgeon and the general surgeons with both routine and emergency trauma cases. I was rarely the primary surgeon due to our case load and the expected paucity of gynecologic surgical cases. *However, my understanding of operative fluid management, damage control resuscitation and surgery, and core surgical principles led to mutual respect from the surgeons at our CSH because I knew how to operate.* I was sought after as an always-willing second surgeon. My experiences definitely made me a better surgeon and a better obstetrician and gynecologist.

LIFE AFTER DEPLOYMENT

Lieutenant Colonel Dan Sessions, MD, is now in the US Army Reserve after his release from active duty in 2019. He is assigned to the 385th Field Hospital in Spokane, Washington, where he also lives and works as an obstetric hospitalist for Sacred Heart Medical Center.

MAJOR BRYAN BOUCHER, MD

Major Bryan Boucher, MD (Figure 3.29), served as battalion surgeon, 5th Battalion, 20th Infantry Regiment, 3rd Brigade, 2nd Infantry Division in Baquabah, Iraq, during Operation Iraqi Freedom from July 2009 to July 2010.

UNIT AND OPERATIONAL BACKGROUND

5th Battalion, 20th Infantry Regiment, 3rd Brigade, 2nd Infantry Division

My unit's mission was to assist and advise the Iraqi Army as they conducted security operations, and my specific mission was to lead a battalion aid station and advise my commander on medical operations.

Sick Call. My experience mainly consisted of leading and operationalizing a battalion aid station, essentially sick call, for a unit of 700 (mostly) male soldiers. *The first month took a little getting used to. I was seeing sick call patients, which required me to remember a lot of general medicine information.* I worked with a PA who was sent with one company to a separate location, and I had medics in the aid station who screened patients before presenting them to me. We operated sick call from 0800 to 1000 and 1400 to 1600 daily to accommodate missions. I was on a base that also had a Role 2 facility, so I was easily able to obtain X-rays and labs as needed. I also performed a large number of physicals for soldiers who were planning on attending schools. Also, I did need to review the references to learn the specific medical tests that were required for each school.

THOUGHTS ON DEPLOYMENT

- I feel that I was adequately prepared but was not utilized much as a gynecologic surgeon.
- I saw very few gynecology patients in my role as a battalion surgeon.

LIFE AFTER DEPLOYMENT

Major Bryan Boucher, MD, was honorably discharged from the Army in 2012, and continued his service to soldiers and their family members as a civilian gynecologic surgeon at Fort Hood, Texas, where he continues to practice today.

[Figure 3.29]
Major Bryan Boucher, MD, in Baquabah, Iraq, 2009. Photograph courtesy of Major Bryan Boucher, MD.

COLONEL WILMA LARSEN, MD

Colonel Wilma Larsen, MD (Figure 3.30), served as chief, clinical operations, Headquarter and Headquarters Company, I Corps, Multi-National Force – Iraq at Camp Victory in Baghdad, Iraq, during Operation Iraqi Freedom from September 2009 to March 2010.

UNIT AND OPERATIONAL BACKGROUND

Headquarter and Headquarters Company, I Corps, Multi-National Force – Iraq

Multi-National Force – Iraq (MNF–I) was the coalition in command in Iraq, and they were responsible for maintaining the security in Iraq, including preventing and deterring terrorism, which would help the Iraqi people complete their political transition and reconstruction.

[Figure 3.30]
Colonel Wilma Larsen, MD, at Camp Victory in Baghdad, Iraq. Photograph courtesy of Colonel Wilma Larsen, MD.

Downsizing Medical Forces. When I volunteered to deploy to Iraq, I was the DCCS at Carl R. Darnall Army Medical Center, at Fort Hood. My initial report date was March 2009, but that was pushed back to September 2009. At the time, the new DCCS had already been selected to replace me, so I stepped down and became the director of the medical evaluation board at Fort Hood. It was an interesting and challenging job to have while I waited to deploy.

I arrived in Iraq in September 2009. When I flew to Camp Victory, one of my brother's former flight school roommates gave me a ride to the sleeping area, as he happened to be on the same helicopter that flew me in. I was assigned to Headquarter and Headquarters Company, MNF-I, and attached to I Corps out of Fort Lewis, Washington. I Corps was commanded by Major General Charles Jacoby, and the ranking medical officer was Colonel Dallas Homas. Interestingly, because Colonel Homas was the private physician assigned to Major General Jacoby, I was assigned to be the personal physician for General Ray Odierno, MNF-I Commander. His staff found it very amusing that his personal physician was a gynecologic surgeon.

My primary duties included helping with the plans to withdraw US medical forces from Iraq during the downsizing, approving all care for Iraqi military and civilians in US hospitals, and working with Iraq's Ministry of Health to ensure close ties were sustained. I was stationed at Camp Victory, but I frequently traveled throughout Iraq to visit hospitals and the Ministry of Health (located in Baghdad).

My worst day in Iraq was 5 November 2009: That was the day Major Nidal Hasan opened fire, killing 13 people, and injuring more than 30 people at the deployment center on Fort Hood. I had led some of the 13 individuals who were killed while I was the DCCS at Fort Hood. I never felt as guilty to be deployed as I did the morning of the shooting.

Challenging and Rewarding. Throughout my deployment, I found my job to be challenging and rewarding. The other professionals working with me included a number of great Medical Service Corps officers and noncommissioned officers. During my time deployed, we were mortared multiple times, but thankfully, no one in our unit was injured. We were able to successfully accomplish our mission and put the plan in place for the subsequent withdrawal of US medical assets from Iraq.

Perspective. Iraq was my second deployment. I had spent 11 months deployed to Bosnia in 1996. In that deployment, I was a captain and had no influence on what we were doing as a unit. However, during the deployment to Iraq I was in a leadership position, and I could see the bigger picture and help influence what the United States was doing (and could continue to do) for the Iraqi people. Those realities and opportunities made my deployment and time away from my family much more tolerable, as I could place the time away from my children into a better context. The mission was something I believed in and was proud to contribute to. When my 9-year-old son had a seizure during the deployment I was unable to be there, but I knew what I was doing was important—even if my separation from him was painful.

LIFE AFTER DEPLOYMENT

Wilma Larsen, MD, retired from the Army as a colonel in 2020 after 24 years of service. She then served in academic medicine at Baylor Scott and White for another 7 years. In 2017, she was selected as associate executive director of the American Board of Obstetrics and Gynecology and served as associate executive director for Exams until 2022, when she began service with The Joint Commission.

MAJOR JENNIFER WENZELL, DO

Major Jennifer Wenzell, DO (Figure 3.31), served as general surgeon substitute, 47th Combat Support Hospital in Tikrit, Iraq, during Operation Iraqi Freedom from February 2009 to September 2009.

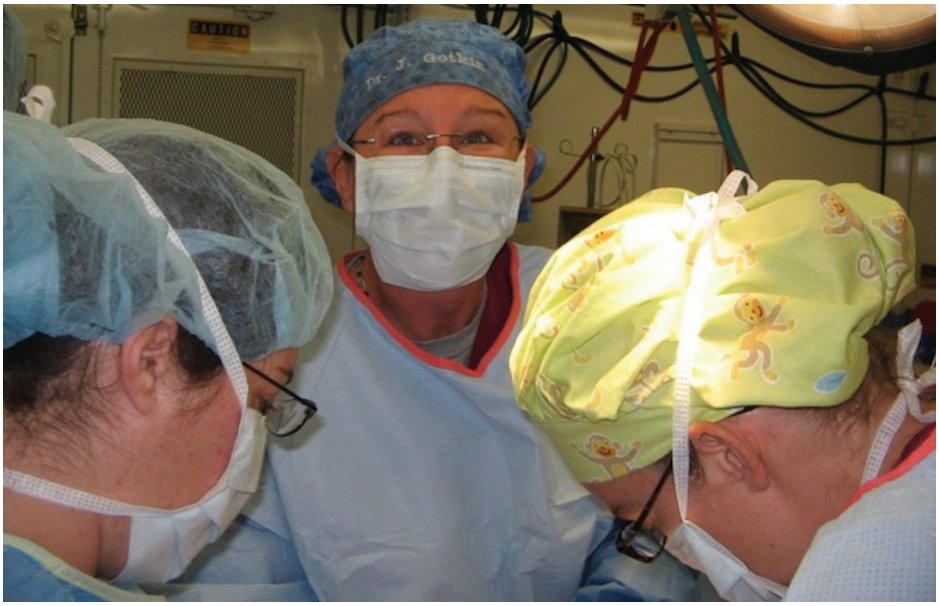
UNIT MISSION AND OPERATIONAL BACKGROUND

4th Combat Support Hospital

Our main effort was to provide medical care to the soldiers of the 25th Infantry Division and a Special Forces unit assigned to the area.

General Surgery Experience. I was placed in a general surgeon assignment, and therefore functioned as such on a regular basis (Figure 3.32). I also did overnight call in the ER and performed a wide variety of medical care. We had access to radiologic and lab studies, and we had everything we needed from a medical and surgical perspective to provide adequate care.

The most memorable experience of my deployment began on Easter Sunday morning. Our pagers went off alerting us to a mass casualty event. Uncertain if this was a drill, we all gathered in the ED to await



[Figure 3.31] *Major Jennifer Wenzell, DO, at the 47th Combat Support Hospital in Tikrit, Iraq, 2009. Photograph courtesy of Major Jennifer Wenzell, DO.*

further instruction. We were told that it was not a drill and an unknown number of casualties would be arriving shortly. I was assigned to one of the two major trauma beds, as was the other gynecologic surgeon who was deployed with me. The casualties began to come into the ED and the entire room erupted with noise. A litter arriving in front of me had a soldier on it muttering, "I'm so thirsty, I'm so thirsty," over and over again. As I began my assessment, I calmly reassured him that he was going to be ok—but based on what I was seeing, I wasn't certain that what I said was entirely true. My patient's right leg was lying across his chest with the heel of his boot resting on his left shoulder. His left leg was completely gone, as were both of his arms. Much of his face was burned, and what little hair he had left was singed to his scalp. The nurse anesthetist at the head of the bed rapidly placed a central line (central venous catheter) in the right side of his neck because we had no other options for its placement.

[Figure 3.32] *Major Jennifer Wenzell, DO, operating with the 47th CSH in Tikrit, Iraq, 2009. Photograph courtesy of Major Jennifer Wenzell, DO.*

As soon as intravenous fluids started running, I thanked God the medics were unable to place a line while they were still in the field, because that is when I noticed arterial spurting on the left side of his neck. Had they been able to place the line (on the left side of his neck) while in the field, he surely would have bled to death, as his carotid artery had been injured by shrapnel. I put my gloved finger over the site on his neck and yelled for our trauma surgeon, telling him we needed to get to the OR as soon as possible. With several surgeons working simultaneously on his extremities, and another colleague and me working on his carotid artery, we were able to stabilize our patient. I stayed behind to help clean up his face and remove some of the debris that was caked on his eyes and nose. In the moment that I noticed his blue eyes, my world came crashing down on me, and I began to sob uncontrollably. As we moved him from the OR table to the stretcher, he couldn't have weighed more than an average 9-year-old boy. I wondered if what we did was the right thing. . . . I wondered if saving this unknown soldier's life was subjecting him to years of torture, or if it would have been more humane to have let him pass away. I struggled with that thought on more than one occasion, only being able to look at the situation from my own perspective. If that were me, I don't know that I would want to be alive.

One day, I received a phone call from my childhood friend who was also my next-door neighbor when I was growing up. He had been a crew chief on a Black Hawk in the Army until he lost his leg in an accident many years ago. While he was at Walter Reed in the amputee program, he met a young man who lost both arms and both legs in Iraq. He was a sweet kid with a great sense of humor and a wonderful outlook on life. My friend put two and two together and realized that this was the same young man who so dramatically touched my life on Easter Sunday in 2009. I have been able to see pictures of him with my friend at Walter Reed, and I have seen the soldier's story in the news. I now know that we did do the right thing that day. He has a love for life and a bright spirit that makes this world a better place. I have his contact information because he would like to get in touch with the people who cared for him from the OR in Iraq to Washington, DC, but as of yet, I have not been able to take that step. While many of this soldier's wounds have healed and he is in a place far better than I could have ever imagined, I still tend to some emotionally painful wounds from that day. He was the first US service member to survive quadruple amputation. In December 2012, a team of 16 medical experts from Johns Hopkins Hospital spent 13 hours performing their first bilateral arm transplant on him.[4]

It is remarkable how quickly we can often recover from physical trauma, yet emotional trauma can linger for years and hide in places where we do not feel it every day. It can pop up when we least expect it, and it can be as painful as the day it happened. I hope that one day I will be able to make the step forward and actually contact that soldier, but for now, I am happy to be able to see him from afar and know he is doing well.

LIFE AFTER DEPLOYMENT

Jennifer Wenzell, DO, retired as a lieutenant colonel in 2012. She then moved to Fort Richardson, Alaska, with her active-duty husband, Dan, and worked at the Alaska Native Medical Center. She had the honor and pleasure of caring for military families from Elmendorf, Fort Richardson, and Fort Wainwright, in addition to caring for Alaskan Natives. Following that assignment, she moved to Fort Hood, Texas, where she worked as a civilian physician for Darnall Army Medical Center. Her final move was to Fort Carson, Colorado, where she joined Southern Colorado Maternal-Fetal Medicine and has been in this practice for the last 5 years. She provides consultative services for high-risk pregnancies in Colorado Springs and other sites in the southern Colorado region (as well as Kansas). She continues to care for military families and has a great working relationship with Evans Army Community Hospital. She feels extremely blessed because a number of the physicians and midwives at the Evans Army Community Hospital are people she once worked with at the Madigan Army Medical Center.

COLONEL CHARLES S. PATTAN, MD

Colonel Charles S. Pattan, MD, served as a general surgeon substitute, 21st Combat Support Hospital in Al Asad, Iraq, during Operation Iraqi Freedom from January 2010 to July 2010.

UNIT MISSION AND OPERATIONAL BACKGROUND

21st Combat Support Hospital

We provided acute care for all units stationed in or transitioning through Al Asad, Iraq.

Slow Times . . . Followed by Life-and-Death Emergencies. My experience consisted mostly of slow and uneventful times with a few instances of dramatic life-and-death medical situations. During my tour, the operations in the region of Iraq I was in were very light, so there were very few casualties to care for. Most of my time was spent manning acute care clinics or taking shifts in the ER, where it was unusual in those settings to see more than one or two patients per shift. Most of my time in the ER was passed by completing military training requirements or performing continuing medical education activities.

There were three instances in my 6-month deployment that were memorable because of the level of stress they created. All were clinical in nature and involved active-duty female soldiers. The most dramatic of the cases resulted in the death of a 19-year-old who was set to redeploy home just 2 days after the date she died. With less than 65 minutes left in my final ER shift prior to my redeployment (at the end of a shift that again saw no clinical activity), the 19-year-old soldier was brought to us by ambulance for assessment, as she had a stab wound to the chest. The wound came by the hand of a fellow soldier who was a member of this young woman's unit.

Upon arrival, she was noted to have a small wound in her right upper chest between the second and third ribs. A quick assessment showed her to have absent breath sounds on the right side and no bleeding from her wound. An X-ray was obtained, and our on-call general surgeon was paged to the ER. The X-ray showed a likely hemopneumothorax on the side of the wound. We placed a chest tube on the patient's right side and witnessed a significant return of blood through the tube. Shortly after placing the chest tube, the patient's condition deteriorated; she became hypotensive and nonresponsive. Arrangements were made for her to be taken to our lone operating suite, where a thoracotomy was performed. All available hospital personnel from all departments were mobilized during the surgical preparation. The thoracotomy revealed the patient's wound extended into her right atrium. Despite providing a massive transfusion of blood (and blood products) and repairing the cardiac wound, we were unable to save this soldier's life.

THOUGHTS ON DEPLOYMENT

If I were to deploy all over again, I would have learned the extent of practical experience that many of our young soldiers had (or didn't have). I would have used our predeployment training and early deployment transition to create learning experiences for them to fill in knowledge gaps.

While I felt I was adequately prepared for the duties I performed, it was clear that some of our young soldiers had very little clinical experience, and they were not as prepared as I anticipated they would be. Under the circumstances we were placed in, I felt I was adequately utilized, but the circumstances themselves were not conducive to efficient utilization of medical specialists. With troop activity as low as it was during my deployment, it certainly seemed a poor utilization of manpower to have the number of surgical specialists available that we did (as there was such little clinical activity in which to engage). There were few opportunities for me to function as a general surgeon or even assist any of our general surgeons. The total number of procedures performed during our deployment was so low that none of us had any real surgical cases to perform. The availability of medications and basic laboratory resources was fully adequate for our mission. The only limitation I felt hampered by was the difficulty in obtaining pathologic evaluations. I diagnosed one of our active-duty soldiers with an invasive cervical cancer and, because of the transport difficulties with our biopsy specimen, it took 2 weeks to confirm the diagnosis and arrange for disposition of the patient stateside for oncology care.

The equipment for basic surgical procedures we had was also somewhat limited and did not always fully function. The single gynecologic surgery I performed during my deployment was a dilation and curettage for an incomplete abortion, and it was hampered by the lack of fully functional suction equipment for dilation and curettage procedures.

LIFE AFTER DEPLOYMENT

Colonel Charles (Rod) Pattan, MD, medically retired from the Army—secondary to a cervical spine injury that precludes high dexterity hand processes. Since his release in March of 2020, he has worked as a diagnostician for a group of gynecologic oncologists and leads a cancer genetics clinic in Fort Wayne, Indiana, where he can be close to his children—both of whom graduated from Michigan State University School of Law in 2021.

MAJOR (P) SHANNON FLOOD-NICHOLS, MD

Major (P) Shannon Flood-Nichols, MD, served as a gynecologic surgeon, 21st Combat Support Hospital in Camp Arifjan, Kuwait, during Operation Iraqi Freedom from November 2014 to May 2015.

UNIT AND OPERATIONAL BACKGROUND

21st Combat Support Hospital

We provided acute medical and surgical care for all units stationed in or transitioning through Camp Arifjan, Kuwait.

Experiences. I was the sole gynecologic surgeon in theater, supporting deployed service members in both the OIF and Operation Inherent Resolve. Our unit cared for service members from the US Army, Air Force, Navy, and Marines, and supported patients from neighboring countries as well (Jordan, Qatar, Bahrain, and the United Arab Emirates).

There were two general surgeons deployed with me, and surgical volume was low; therefore, I was not utilized as a surgical assistant. However, *I felt like my residency training adequately prepared me for my mission. I felt that I could provide basic gynecologic care and basic emergency services.* The lab and pharmacy services were basic but adequate.

My only regret is that I wish I had deployed before having a baby. I left a 9-month-old at home when I deployed in November 2014, and it was incredibly hard for me.

LIFE AFTER DEPLOYMENT

Shannon Flood-Nichols, MD, was honorably discharged from the Army as a major. After completing her service obligation in 2016, she continued practicing in maternal-fetal medicine for MultiCare in Tacoma, Washington, for the next 5 years. She then relocated to Colorado Springs, Colorado, to join Southern Colorado Maternal-Fetal Medicine with her former Army colleague, Jennifer Wenzell, DO.

Lessons Learned . . .

Major Todd S. Albright, DO, MPH

- **Gynecologic surgeons can fill a variety of roles on the battlefield; they are incredibly versatile.**
- Creature comforts are few on the battlefield, so you make do. Ingenuity always finds a way to make life easier.
- Be careful with your caffeine because it may not be available. You might want to consider weaning yourself off of it before you deploy.
- Hair is a luxury. If it is hot, with limited showering opportunities, it actually can become painful.
  (The best thing you can do is cut your hair off.)
- **Medics are never really very far from combat.**
- Posttraumatic stress disorder is real and it affects everyone. It often has lasting and painful consequences. Please get help early.
- Nothing can really prepare you for the "in-your-face, life-or-death" chaos of war.

Major Brook A. Thomson, MD

- **Establishing and publishing the rating scheme early in deployment is a critical component of leadership; it ensures soldiers align and nest their efforts and goals with that of their rater and senior rater.**
- **The senior medical provider in an ASMC should be included in unit medical planning processes to improve both medical planning and communication in the unit.**
- Senior clinical expertise can help ASMC commanders in their decision-making processes.
- If the ASMC is subsequently split into treatment squads, the providers should become the officers in charge, with the squad leaders being subordinate to them. That would help provide a better understanding and a more precise execution of the commander's intent.
- **Gynecologic screening and hormonal cycle control counseling and options must be consistently offered prior to deployment for all female soldiers.**
- **Specialty gynecologic care and medications for cycle control must be more readily accessible to all female soldiers during their deployment.**
- **Care for families of deployed soldiers, sailors, and airmen by those at home is essential for allowing our fighting force to concentrate on the job at hand while deployed.**

Major Patrick J. Woodman, DO

- Down times are long and boring, but sometimes boring can be good.
- **Things you see in combat casualty care are more horrific than you can imagine.**
- Soldiers, even when grievously injured, always think of others before themselves.
- People are always very resourceful when it comes to the amenities of daily life.
- I was privileged to participate in surgical cases that I wouldn't have had the opportunity to participate in under normal circumstances, and it made me a better gynecologic surgeon.
- Life is precious, and in dire circumstances most of our daily routine is simply inane.

- Deserts turn to mud when it rains. (There was mud everywhere, on everything, and you could not get away from it.)
- **Additional and continuous critical deployed surgical skills training should be implemented to optimize individual readiness for performing "downrange" surgical procedures.**

Colonel Joseph M. Gobern, MD, MBA

- It is a challenge to decline care to the local population due to the rules of engagement.
- **Rotating surgeons to CSH units for surgical skills enhancement allowed them to acquire additional skills and an appreciation for other team members.**

Colonel Brian J. Crisp, MD

- **Gynecologic surgeons can acquire additional, independently credentialed surgical skills that are of value on the battlefield.**
- My chain of command always supported its injured soldiers; our leaders really did lead.
- A visit from a high-ranking official really does help boost morale.
- There isn't a better feeling than going home.

Lieutenant Colonel Paul Whitecar, MD

- FRGs play a very important role. They help the families of those deployed, which helps provide soldiers with peace of mind. The FRG ensures families are being taken care of while their soldier is deployed.
- **I would recommend that FRG program leaders review how to better support family members of soldiers who are deployed with a unit to which they were not originally assigned—and for which their family is not co-located.**
- Serving as a staff officer provides significant insights into how the Army operates and can provide valuable experience to an Army officer.

Major Jerry K. Izu, MD

- **As a deployed gynecologic surgeon, the most important thing is attitude. Know that you may not use some of your specific skills in gynecologic surgery, but your skills as a surgeon and clinician are valuable regardless of the specific circumstance.**
- Continue to look for opportunities that will enable you to continue your medical education, and read as much as you can.
- Learn how to be a better soldier, learn how the Army works, and learn what you need to do to further your Army career and plan your future. (For example, complete the online portions of the Captains Career Course or Intermediate Level Education.)
- Take advantage of the opportunities that present themselves.
- Operate if you can. If you cannot operate, make yourself useful as much as you can in other ways.
- Exercise and stay healthy.
- Develop yourself spiritually.
- Get to know new people and learn from their experiences.

Colonel Edmund W. Higgins, MD

- Freedom is too often taken for granted.
- Battlefield health care was incredible—if injured soldiers made it to the ER, in most instances they remained alive and were evacuated out in 12 to 24 hours.
- Providing health care to the Iraqis was very rewarding.
- Deploying makes one appreciate life and family.
- **You cannot choose your leaders, but you can choose how to respond and adapt to them.**
- **Chaplains are great professionals who provide a wonderful source of comfort and hope, and there are many lessons to be learned from working with them.**

Major Howard L. Curlin, MD

- **Recognize that those who deploy face challenging periods and often experience more depression, anxiety, and unprofessional behavior than usual.**
- The impact of primary medical care on the local populace is not as significant as surgical or dental care.
- Extended war creates a significant "brain drain" in a country where citizens with valuable skills (who could potentially help the country) often leave their country.
- Support for families at home and when the soldiers return is critical; some relationships face substantial challenges when trying to survive an extended deployment.
- **For gynecologic surgeons deployed in brigade and battalion surgeon positions, rotation to the CSH can enhance morale and ensure surgical skills are more effectively maintained.**

Colonel Arthur Wittich, MD

- Always do your best.
- Remember you are a military officer and leader.

Major Michael Smyth, MD

- **To be successful, surround yourself with competent and smart people.**
- Providing care to the local populace pays it forward with goodwill.
- Assisting in combat trauma surgery makes you a better gynecologic surgeon.
- **A little enthusiasm, basic surgical skills, and an understanding of anatomy were the basic requirements I needed to assist our general surgeons.**

Major Daniel Sessions, MD

- A gynecologic surgeon's skills are a valuable resource in combat surgical care.
- **The gynecologic surgeon's medical knowledge and surgical skills (of operative fluid management, hemorrhage management, damage control resuscitation surgery, core surgical principles of exposure, hemorrhage control, and restoration of normal anatomy) can lead to mutual respect from other surgeons you assist in combat casualty care.**
- Deployed colleagues are extremely talented and committed and are always ready to help you when asked.
- You will make lifelong friends.

Major Bryan Boucher, MD

- Prepare yourself for seeing sick call and review general outpatient medical problems and management before deployment.
- Always work closely with your medics who can help greatly improve your clinic operations.

Colonel Wilma Larsen, MD

- **It is tough being away from the people you care about—family, friends, and colleagues. However, the important work that must be accomplished in your mission can help improve your perspective.**
- Being a staff officer and helping with the execution of the strategic effort can provide a real sense of accomplishment and pride in your work.

Major Jennifer Wenzell, DO

- If you are deploying as a general surgeon, I recommend gaining some additional time in the ED working with trauma patients and working in the OR with the surgeons to improve your surgical and resuscitation skills.
- My limitations involved my own fears and apprehensions about my scope of practice in the ED and in the OR performing trauma surgery. I was able to overcome and adapt, but I felt those limitations on a regular basis.
- **Physical trauma heals much faster than emotional trauma, which can linger for years.**

Colonel Charles S. Pattan, MD

- We need to consider additional training prior to deployment.
- Before deploying, clinical skills should be assessed, and shortfalls need to be addressed through training**.**

Major (P) Shannon Flood-Nichols, MD

- Do not underestimate and prepare for the challenges of leaving your family, especially young children.

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CHAPTER 4

Deployments During Operation Enduring Freedom

The following accounts are from US Army gynecologic surgeons who deployed in support of Operation Enduring Freedom. Operation Enduring Freedom began on 7 October 2001, with airstrikes targeting Al-Qaeda and the Taliban in response to the September 11 attacks. The end of Operation Enduring Freedom was announced on 28 December 2014. Once again, the surgeons share their unique personal experiences, operational challenges, lessons learned, as well as numerous other highs and lows encountered while providing combat casualty care downrange.

[Figure 4.1] *Map close-up of Afghanistan.* Photograph from Getty Images, Keith Binns.

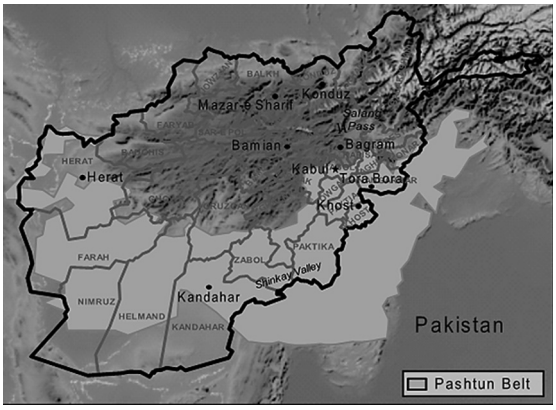
LIEUTENANT COLONEL BRET GUIDRY, MD

Lieutenant Colonel Bret Guidry, MD (Figure 4.3), served as brigade surgeon, 2nd Battalion, 506th Infantry Regiment, 101st Airborne Sustainment Brigade, 101st Airborne Division at Forward Operating Base Boris in Paktika Province, Waziristan, Afghanistan, during Operation Enduring Freedom from August 2010 to October 2011.

UNIT AND OPERATIONAL BACKGROUND

Lieutenant Colonel (LTC) Bret Guidry was deployed August 2010 to October 2011 in support of Operation Enduring Freedom (OEF) and was assigned as the brigade surgeon to the 101st Airborne Sustainment Brigade. LTC Guidry was trained, and is double-board certified, in gynecologic surgery and psychiatry. The 2nd Battalion, 506th Infantry Regiment (2/506IR), was located at Forward Operating Base (FOB) Boris, in the Paktika Province, Waziristan, Afghanistan. LTC Guidry was deployed from Womack Army Medical Center at Fort Bragg, North Carolina.

Our main effort was to provide medical care to the soldiers of the 2/506IR, 4th Brigade Combat Team, 101st Airborne Division, and a Special Forces unit assigned to the area.



[Figure 4.2] *Afghanistan map showing the provinces and the Pashtun Belt. Reproduced from* A Different Kind of War The United States Army in Operation ENDURING FREEDOM October 2001–September 2005;2010:10. *https://history.army.mil/html/bookshelves/resmat/GWOT/DifferentKindofWar.pdf*

Delayed Medical Evacuation. I was with the "Band of Brothers"—the 2/506th, 101st Airborne. Working with soldiers was great, as my medics were a wonderful mixture of youth and experience. They have my heart, and I truly believe, as I told them one night, that they are this era's "greatest generation."

On a Sunday night at 2100, we were attacked. We were attacked frequently, but that time I

[Figure 4.3] *Lieutenant Colonel Bret Guidry, MD, brigade surgeon, on patrol outside of Barmal, Afghanistan, 2010. Photograph courtesy of Lieutenant Colonel Bret Guidry, MD.*

immediately suspected my aid station was hit from the force of the blast. I ran to the back to check on my staff. Realizing that we were not hit, I gathered my team and prepared for casualties. The explosion was a vehicle-borne improvised explosive device (VBIED), and it was big. Over the next 12 hours, it was nonstop trauma. The injuries were massive, with 24 dead at my last count. We treated 59 nonlife-threatening injuries, eight urgent surgical patients, and five extremely injured priority patients. I was the only provider at FOB Boris and as the patients were rolling in, I was told we wouldn't have any medical evacuation capabilities until 0400 hours! I converted the dining facility into a hospital and assigned a combat medic to each patient (to monitor their respirations, hold pressure, etc).

At our outstation, our abilities were focused on stabilization and evacuation. We were in a situation where I was going to have to begin additional treatments if the patients were to survive, so I set priorities and began. I performed two rapid sequence intubations, a cricothyrotomy, a cutdown, four lateral epicanthotomies, and facial surgery to control a hemorrhage from a facial artery at our aid station (Figure 4.4). We performed bag-mask ventilation on patients for 4 hours. Sadly, we lost one after 3 hours of respiratory support (due to head trauma).

I was proud of my medics and combat medics. I spent months training up the cooks, radar crew, and infantry personnel in trauma—and it paid off. As I read the news about the attack, I was very proud of my troops since they had saved many lives. The evacuation helicopters arrived at 0400 hours. That was our fifth mass casualty (MASCAL) event, but it was the first one we had without immediate evacuation capabilities.

[Figure 4.4] *The battalion aid station at Forward Operating Base Boris in Paktika Province, Waziristan, Afghanistan, 2010. Photograph courtesy of Lieutenant Colonel Bret Guidry, MD.*

Taking Care of Pack Animals. Forward Operating Base Boris and Fox Company were by far the most active and kinetic area and unit in our region (Figure 4.5). We went through major battles, and daily attacks were the norm. We had young men killed less than 22 meters from where I was sitting one day. My work at FOB Boris was a great privilege, as I was busy caring for the troops. In addition to sick call, trauma, and preventive medicine, we were tasked with taking care of our

[Figure 4.5] *Lieutenant Colonel Guidry, MD, on a Forward Operating Base about 1,000 meters from the Pakistan border. Photograph courtesy of Lieutenant Colonel Bret Guidry, MD.*

donkeys. Yes, I took charge of the care of our pack animals, (Pack animals you ask? Was this World War I? No, but we used pack animals.)

Patrol, Psychiatry, and Pastoring. I conducted four major health and two educational *shuras* (the Arabic word for "consultation"), which consisted of meetings with tribal leaders, elders, and the sub-governor, as I designed an outpatient clinic and hospital for the Paktika Province (Figure 4.6). There wasn't a hospital there or anywhere nearby. Fox Company did not have a chaplain. We had a single battalion chaplain who was only able to visit every 8 to 12 weeks, so I offered to do a weekly chapel service. It was a tremendous blessing for me. I also performed a great deal of psychiatry sessions and saw tons of trauma cases. Every morning I taught classes on a wide variety of topics, including an anger management class 3 hours each week. I was busy!

Forward Operating Base Boris on Christmas Eve. On Christmas Eve, I held a candlelight chapel service at 2030 hours, and while we were singing our last song, we were hit by the enemy. We had already been hit during six chapel services by then. I brought everyone to the bunker and then rapidly made my way to my aid station. We received very effective indirect fire. I made ready my medics just as the casualties hit the door. We had amputations and femoral artery injuries. We also performed cricothyrotomies and focused assessments with sonography for trauma (FAST) exams. Our two M777s (towed, 155 mm artillery pieces) blasted away as the attacks continued throughout the night. At 0200 hours, I looked around, and there was blood everywhere. I was proud of my medics and said, "Merry Christmas." That was a hard night, but it was fantastic because those men (my medics) were something special.

[Figure 4.6]
Lieutenant Colonel Guidry on patrol in Paktika Province, Waziristan, Afghanistan, 2010. Photograph courtesy of Lieutenant Colonel Bret Guidry, MD.

Mass Casualties. We had 2 more days of unbelievable attacks. During one attack, we had a massive MASCAL. Two US soldiers were killed in action; one US soldier had extensive injuries to the upper legs and abdomen (and had to have bilateral, below-knee amputation); and there were five Afghan National Army (ANA) priority casualties. Then we had another attack, resulting in a MASCAL with three ANA killed in action (one died on my table), two urgent surgical patients (on one I performed a cricothyrotomy, placed chest tubes, and performed FAST exams), and five more priority casualties. It was almost nonstop, and it was just me and my two medics! I worked hard to train the 11Bs (infantry) up on their Emergency First Responder skills, and that paid off. On 28 March, I had another huge MASCAL from a VBIED (11 urgent surgical casualties) and had no ability to evacuate them. I had to once again convert our dining facilities into a hospital, where I did two rapid sequence intubations, a cricothyrotomy, a cutdown, and facial surgery.

LIFE AFTER DEPLOYMENT

Bret Guidry, MD, retired in 2018 as a colonel after serving 24 years in the Army. At the time of publication, he practices medicine in Charlotte, North Carolina, where he enjoys writing novels, motorcycling through the Carolinas, and spending time with his family.

LIEUTENANT COLONEL HUNTER A. HAMMILL, MD

Lieutenant Colonel Hunter A. Hammill, MD (Figure 4.7), served as officer in charge of the troop medical clinic, 535th Military Police Battalion at Camp Sabalu-Harrison in Parwan Province, Afghanistan, during Operation Enduring Freedom from April 2012 to June 2012.

UNIT AND OPERATIONAL BACKGROUND

535th Military Police Battalion

[Figure 4.7] *Lieutenant Colonel Hunter Hammill, MD, at Camp Sabalu-Harrison, in Parwan Province, Afghanistan, 2012. Photograph courtesy of Lieutenant Colonel Hunter Hammill, MD.*

I was the officer in charge of a troop medical clinic with over 1,000 soldiers and Department of Defense personnel assigned to it within a military police battalion.

A Symphony of Rashes, Sore Throats, and Diarrhea. When I arrived in Afghanistan, the combat medic specialists (68Ws) working with me were at first apprehensive, knowing my practice background back home in Houston, Texas. My US practice was in a large medical center with all the "bells and whistles" (including computerized tomography, scanners, and high-tech labs). It involved the care of a lot of patients with acquired immunodeficiency syndrome (AIDS), and pregnant patients with other complex medical conditions. While deployed, I went back to the basics of taking a patient's history, relying on my physical exam clinical experience, and using common sense. It was wonderful. I was presented with a symphony of rashes, sore throats, muscle aches, and diarrhea. *In a country without plumbing, diarrhea is very common.*

A friend, a trauma surgeon, who had several previous deployments, advised me to bring an orthopedic textbook with me on my deployment. The book weighed a lot, but it was extremely valuable. After just 2 weeks on deployment, I wished I could have brought my (medic) sergeants back to my office to work with me at my practice in Houston, since they were always eager to help and learn—even if by only observing. Sometimes, I wished more of my trainees back home had their attitude, and I realized why hiring a US military veteran is a plus.

Enjoying the Missions and Being Part of the Team. The sergeant major came in one day with a hernia, which I was able to reduce. The medics were impressed. On another day, a soldier came in angry, and his battle buddies were worried that he needed to see the psychiatrist. Their instincts and concerns were good, and he was sent home.

I was asked to investigate the tuberculosis risks among locals and examine chronic, nonhealing wounds found on some Taliban detainees. I had completed a fellowship in infectious diseases, which helped me perform general medicine and complete missions like that one. In addition, as a surgeon, I was able to use a scalpel on abscesses and perform general medicine.

While my deployment was not as exciting as being part of a forward surgical team (FST), I enjoyed my mission and felt like I was an integral part of the unit.

THOUGHTS ON DEPLOYMENT

If I deployed again, I would bring fewer things to carry. I would try to go with the FST and take some trauma life support courses. My preparation was adequate, but I also had completed a year of internal medicine and a 2-year infectious disease fellowship. Since I had taken care of a lot of AIDS patients in my practice at home, I was very comfortable with general medicine. The orthopedic book I brought helped me greatly as well.

The combination of having some general medicine and surgical skills was helpful. I hope I was helpful to the mission, which was not about me but my soldiers. I was able to help with some chronic wounds and the always favorite "diarrhea problem."

I was called only once to assist trauma surgeons at the combat support hospital. I was deployed as a general medical officer and field surgeon (62B) but was asked to provide verbal recommendations as a gynecologic surgeon (60J). If deployed again, I would want credentials for both specialties. As a gynecologic surgeon working inside a troop medical clinic, I felt well qualified to treat female soldiers, although that was only a small part of my work. On deployment, the most important characteristic I can recommend is flexibility, and just like in the civilian world, work collaboratively with your colleagues.

LIFE AFTER DEPLOYMENT

Hunter Hammill, MD, retired in 2015 as a colonel. After his deployment, he returned to his practice in Houston, Texas, with the AIDS Healthcare Foundation. He cares for pregnant patients with complex conditions such as human immunodeficiency virus (HIV) and those with spinal cord injuries.

CAPTAIN ERIN A. KEYSER, MD

Captain Erin A. Keyser, MD (Figure 4.8), served as battalion surgeon, C Company, 4th Infantry Division at Forward Operating Base Fenty in Jalalabad, Afghanistan, during Operation Enduring Freedom from July 2012 to December 2012.

UNIT AND OPERATIONAL BACKGROUND

C Company, 4th Infantry Division

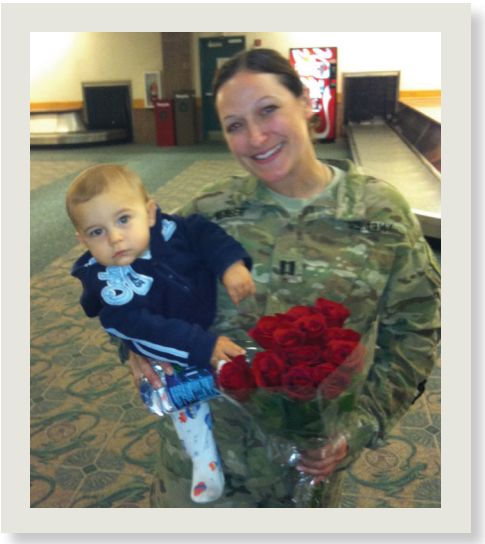
[Figure 4.8] *Captain Erin Keyser, MD, at Forward Operating Base Fenty in Jalalabad, Afghanistan, 2012. Photograph courtesy of Captain Erin Keyser, MD.*

I was responsible for operating the unit aid station, including sick call twice a day, and for providing care for any trauma or acute care required for soldiers of C Company, 4th Infantry Division (4ID). In addition, as a Role 2 aid station with a morgue, we also declared the deaths of any soldiers who died or were killed in our region.

Five Soldiers on My First Day. I volunteered to deploy but was sad to go as my baby was only 7 months old at the time. I was still breastfeeding, and my 5-day-long journey to get to Afghanistan included "pumping and dumping" (milk) in numerous places: airplane bathrooms, transient housing tents in Kuwait and Bagram, and various bathroom stalls. I finally arrived at my base and was eager to rest for a few days and adjust to the new time zone. We had a MASCAL on my first day there, and we lost five soldiers.

On my second day, I started seeing sick call patients. As a gynecologic surgeon, I was definitely a little nervous about providing primary care, especially for male soldiers, as I had not taken care of a male patient in over 5 years at that point. The very first patient who checked in that day for sick call wrote down "rash" as the complaint. I figured I could handle it by prescribing some antifungals. To my surprise, his rash turned out to be genital warts, which look the same on female and male genitalia.

During my deployment, I also volunteered for a humanitarian mission with the Central Intelligence Agency. In addition, I flew to several bases and provided medical care to women and children, and taught medics and midwives about obstetric emergencies.



[Figure 4.9] *Captain Erin Keyser, MD, arriving home after a deployment, 2012. Photograph courtesy of Captain Erin Keyser, MD.*

Unfortunately, we saw several other casualties during my 5-month deployment. One of the duties of the physician that no one ever talks about is the requirement to see each casualty, declare the death, and sign the death certificate. No training in medical school prepares you to see the bodies of soldiers killed in action. One morning, I was called to the scene of a 20-year-old soldier who had committed suicide by shooting himself in the mouth. Even though he had a huge hole in his brain, I was required to declare him dead and witness the horrific scene. That event still haunts me, even after returning home from my deployment (Figure 4.9).

THOUGHTS ON DEPLOYMENT

If deployed again, I would definitely try to be assigned in a gynecologic surgeon or general surgery substitute position. I was not able to operate during this deployment. With predeployment and postdeployment in-processing—and out-processing added to my deployment time—I was not able to operate for almost 9 months. Nine months is a long time to go without practicing surgical skills.

I feel I was underprepared for the orthopedic complaints. I never did an orthopedic rotation as a medical student or as a resident. I also feel like I could have done so much more if we could have cared for the local civilians.

I was very fortunate in that I had a basic lab, X-ray, and even an ultrasound machine with a vaginal probe available to me. I feel like I could have provided a lot of care as a gynecologist.

I think sharing information about how gynecologic surgeons have made an impact during a combat deployment is important. When I tell people I am an Army gynecologic surgeon and obstetrician, they assume we do not deploy.

LIFE AFTER DEPLOYMENT

Lieutenant Colonel Erin Keyser, MD, at the time of publication, serves as the program director for the Gynecologic Surgery and Obstetrics residency program at Brooke Army Medical Center at Joint Base San Antonio-Fort Sam Houston, Texas. She also serves as the Army representative to the Defense Health Agency Women and Infant Clinical Community. In this role, she uses her experiences from deployment to improve the health, readiness, and retention of military service women.

MAJOR (P) BELINDA J. YAUGER, MD

Major (P) Belinda J. Yauger, MD (Figure 4.10), served as battalion surgeon, Brigade Support Battalion, 2nd Stryker Brigade Combat Team, 2nd Infantry Division at Forward Operating Base Walton in Kandahar, Afghanistan, during Operation Enduring Freedom from April 2012 to September 2012.

UNIT AND OPERATIONAL BACKGROUND

Brigade Support Battalion, 2nd Stryker Brigade Combat Team, 2nd Infantry

The 2nd Stryker Brigade Combat Team (SBCT) was responsible for maintaining security within the region. The Brigade Support Battalion supported the SBCT in all operations.

[Figure 4.10] *Major (P) Belinda Yauger, MD, on an aircraft deploying to Forward Operating Base Walton, in Kandahar, Afghanistan, 2012. Photograph courtesy of Major (P) Belinda Yauger, MD.*

Great Unit. For me, deploying was a good experience. I mainly enjoyed just being a part of a deployed military unit, as opposed to being in a garrison hospital all the time. I really liked teaching and working with the medics. I knew various members of the unit well, including the commander and chaplain. It was a great community.

Women's Health Care. We traveled to a local clinic that had a midwife who offered women's health care (Figure 4.11). Our purpose for that particular mission was to identify any needs it had and to help the medical team fulfill those needs and improve health care for the local populace. Thankfully, we were in a relatively safe location that did not experience any significant conflict while I was deployed to that area.

THOUGHTS ON DEPLOYMENT

My deployment involved the practice of more family medicine than I had anticipated. A predeployment rotation in a family medicine clinic would have been most helpful for me, although I thought the Tactical Combat Medical Care Course was excellent for providing predeployment training.

[Figure 4.11]
Major (P) Belinda Yauger, MD (center) at a local clinic in Afghanistan. Photograph courtesy of Major (P) Belinda Yauger, MD.

I felt that I could have been relatively helpful as far as gynecologic and obstetric conditions were concerned. The volume of orthopedic conditions I encountered was significant, including the large number of X-rays I had to read (and thankfully we had X-ray capability). It was very helpful to have a physical therapist nearby to lean on for patient care expertise.

It seems, after speaking with others who have deployed, that everyone's experiences are highly variable. Most of us felt that our abilities as soldiers and gynecologic surgeons really benefited from the experiences we had.

LIFE AFTER DEPLOYMENT

Belinda Yauger, MD, retired as a lieutenant colonel in 2021 after 20 years of service, including serving as Consultant to The Surgeon General. She subsequently joined the University of Texas Health Science Center at San Antonio, Texas, as the Reproductive Endocrinology and Infertility Division Director.

MAJOR JOHN M. CSOKMAY, MD

Major John M. Csokmay, MD (Figure 4.12), served as battalion surgeon, 4th Battalion, 23rd Infantry Regiment, 2nd Stryker Brigade Combat Team at Forward Operating Base Azizullah in the Maiwand District, Afghanistan, during Operation Enduring Freedom from August 2012 to January 2013.

UNIT AND OPERATIONAL BACKGROUND

4th Battalion, 23rd Infantry Regiment, 2nd Stryker Brigade Combat Team

I was responsible for operating an aid station in support of the 4th Battalion, 23rd Infantry Regiment (4/23IR), while it conducted combat, security, and stability operations in Afghanistan.

[Figure 4.12] *Major John Csokmay, MD, at Forward Operating Base Azizullah in the Maiwand District in Afghanistan, 2012. Photograph courtesy of Major John Csokmay, MD.*

Learning From Soldiers. Supporting a forward infantry battalion that was actively involved in combat, security, and training operations was a rewarding experience. I was the only physician for a Forwarding Operating Base (FOB) (that had approximately 1,000 people—300 of whom were US soldiers) in a remote area of Afghanistan. We had limited medical capabilities, and air assets were required for medical evacuations. It was especially gratifying to teach and mentor the medics who, in turn, taught me many valuable lessons about being a soldier and a medical provider in the field. I developed many long-lasting relationships with fellow soldiers and medics alike.

I also had a lot of exposure to Afghan National Army (ANA) soldiers who were co-located on the base with us; there were two to three times more ANA soldiers than US soldiers on our FOB. I developed a new and deeper respect for a different culture and for the medical and combat capabilities that clearly set the US military apart.

We had very limited medications for common ailments, and we did not have surgical capabilities or any

lab and radiologic equipment. The forward nature of our aid station required me to carefully triage patients. I had to decide who could be conservatively treated at the FOB with our limited resources versus transporting them to receive a higher level of care (and risking a depletion of the fighting force required to complete our mission).

Only a few female patients were seen for gynecologic conditions (mainly related to menstrual cycle regulation) on the FOB during my deployment.

As a gynecologic surgeon, I was definitely challenged by the range of medical issues that arose during my deployment—specifically multiple IED explosions and vehicle accidents that resulted in MASCAL situations at our FOB. Seven days after I first arrived at the FOB, there was an IED explosion involving a vehicle with ANA soldiers. It resulted in nine casualties (one deceased and multiple soldiers with severe injuries) who all arrived at our small aid station, which had a maximum capability of four patient treatment beds; it was definitely a challenging day!

THOUGHTS ON DEPLOYMENT

My level of preparedness was as good as could be expected for a gynecologic surgeon. I dealt with trauma, performed general medicine (sick call, orthopedic injuries), and took care of a population that was 97% male. I relied heavily on the experience of my senior medics, reference books and materials, and the predeployment training I received from taking the Tactical Combat Medical Care Course in San Antonio, Texas.

Deployment experiences among gynecologic surgeons were highly variable depending on the unit they were assigned to, the location they were in, and the mission they had. Some had less stressful deployments with a lot of down time to exercise and read. Some were able to use modern amenities and facilities (gyms, swimming pool, dining facilities, fixed housing structures, internet, television), while others experienced some of the harsher realities of war. Most of us felt that our abilities as soldiers and gynecologic surgeons were enhanced from our deployment experiences; however, some may have felt that the level of care they provided in certain circumstances could have been accomplished exclusively by physician assistants and medics.

LIFE AFTER DEPLOYMENT

In May 2017, Colonel John Csokmay, MD, was selected to serve as the department chief of Gynecologic Surgery and Obstetrics at Walter Reed National Military Medical Center. Dr Csokmay was later promoted to associate professor at the Uniformed Services University. He subsequently served as core faculty for both the National Capital Consortium Residency in Gynecologic Surgery and Obstetrics and Combined Federal Fellowship in Reproductive Endocrinology and Infertility.

MAJOR CHRISTINE VACCARO, DO

Major Christine Vaccaro, DO (Figure 4.13), served as battalion surgeon, C Company, 703rd Brigade Support Battalion, 4th Infantry Brigade Combat Team, 3rd Infantry Division at Forward Operating Base Shank in Logar Province, Afghanistan, during Operation Enduring Freedom from July 2013 to November 2013.

UNIT AND OPERATIONAL BACKGROUND

C Company, 703rd Brigade Support Battalion
4th Infantry Brigade Combat Team, 3rd Infantry Division

My unit's mission was to maintain the combat readiness and fighting strength of the soldiers assigned to us. I was the sole physician for our Role 2 aid station.

Rocket City. No matter how much you prepare for a situation, there are certain situations in your life for which you can't ever be fully prepared for. Before I deployed, I told myself I was going to make the best out of whatever living and working situation I would encounter. My deployment started out well; the chartered commercial flight from Fort Benning, Georgia, to Kuwait was fantastic because I was allowed to sit in the cockpit of the aircraft when the pilots landed in Kuwait City. That was certainly the high point of my deployment!

[Figure 4.13]
Major Christine Vaccaro, DO, battalion surgeon, at Forward Operating Base Shank in Logar Province, Afghanistan, 2013. Photograph courtesy of Major Christine Vaccaro, DO.

At the end of my transient, weeklong stay in Kuwait, I met a contractor who had just left FOB Shank, which was my final destination. With a slightly evil grin, he asked me if I knew the nickname for FOB Shank. He proceeded to tell me everyone called it "Rocket City," and that I should be prepared for incoming rocket attacks two or three times per day. I was shocked that this was the first time I was hearing that news and refused to believe it. I boarded the C-17 aircraft for what turned out to be an all-night trip from Kuwait due to engine and maintenance issues. I arrived at Bagram Airfield (BAF) in Afghanistan tired but excited. When the back of the C-17 opened up, I saw the amazing view of the Hindu Kush Mountains—which reminded me of the mountains in Arizona with their similar, brilliant hues of orange and pink. I was coming from the usually overcast Pacific Northwest, so I thought my deployment would be a nice and sunny 4.5-month adventure! The glass was certainly half full at that time.

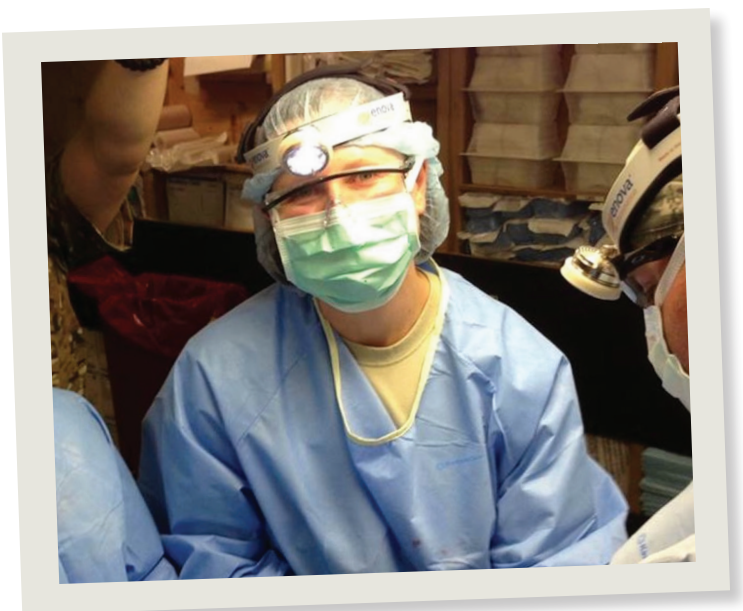
Within 1 hour of arriving at BAF, I was on a helicopter taking the 45-minute flight to FOB Shank. The countryside was a mixture of small farming communities, desert, and stunning mountains. I finally arrived at my new home for the next 4.5 months, "Charlie Med," and was introduced to the commander—who then brought me next door to the aid station where I was welcomed by the first incoming rocket of the day. The alarms were a deafening "HONK! HONK! HONK! INCOMING! INCOMING! INCOMING!" I was pulled to the ground and was told to cover my head. I continued to stay down while frozen in disbelief until someone tapped me and instructed me to go to the cement bunker. Upon taking a seat in the bunker, everyone said, "Welcome to Rocket City, Ma'am!" The company (medical and support staff) made small talk like it wasn't a big deal that a rocket had just detonated on our FOB. I was very tired, emotionally frail, and still in disbelief.

After the "ALL CLEAR" siren sounded, I was given a tour of the area that included my tent, the latrine, and the historic site where a large VBIED had detonated less than 1 year ago (which was right next to my tent). I felt slightly nauseated at that point. I was still in my full body armor due to the heightened security threat, as I happened to arrive during the Muslim holiday of Ramadan. In addition, I arrived in the month of July, which was traditionally the more "active" fighting season. As I was pondering the fortune of coming to Rocket City during Ramadan in the height of the summer fighting season, I was greeted by my second incoming rocket, which I heard whistle over my head *without* any warning siren or alarm that time. I hit the ground and hoped that would not be my last memory. Fortunately for me, but unfortunately for those living and working in the center of the FOB ("circle of doom"), that rocket (as most rockets would) hit in that area. The medical compound was on the northern edge of the FOB, about 1.5 km from the dreaded circle of doom. After waiting the obligatory 20 seconds, I hurried to the bunker, where I was again greeted warmly by my new company. During the first 12 hours of my arrival, I was in the bunker a total of five times after hearing "INCOMING! INCOMING! INCOMING!" When I finally fell asleep that night, after not sleeping for more than 36 hours, I was out of the denial and into

the acceptance phase of what the next 4.5 months of my life would be like. It was the first time I cried during my deployment. I certainly was not mentally prepared for the serious threats I faced daily.

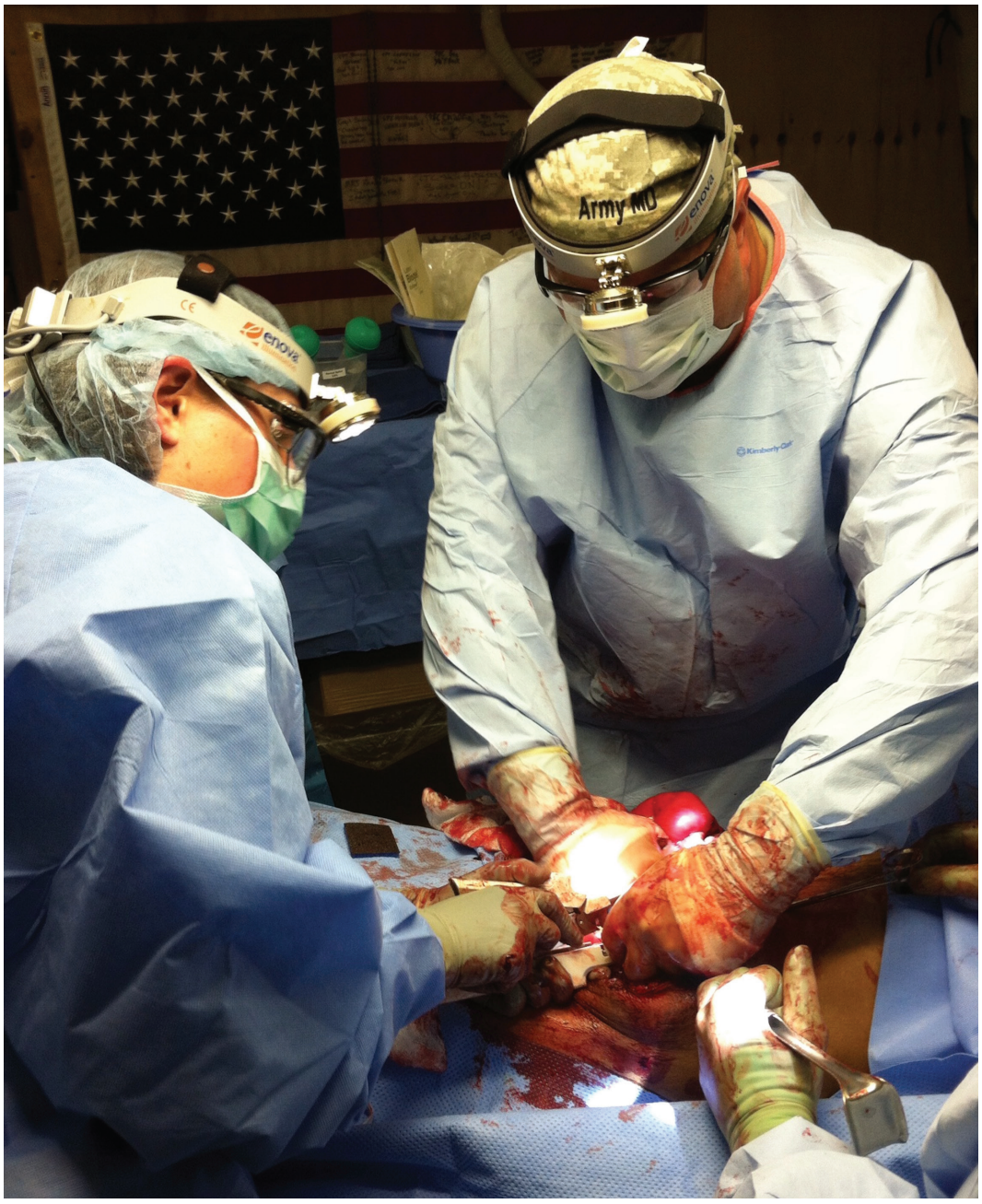
Working With the Forward Surgical Team. I worked with the 1st FST for several months during my deployment (Figure 4.14). We saw trauma almost daily and performed fasciotomies, bowel resections, and facial reconstruction and removed foreign bodies (shrapnel and bullets). I also saw very unusual cases: spontaneous pneumothorax (with chest tube placement); ventricular tachycardia; viral meningitis; eosinophilic pneumonia; scorpion bites (from the genus Hottentotta—which can be fatal); and multiple dislocations and fractures due to IEDs, rollovers, or from injuries sustained while soldiers were performing training exercises.

We had the greatest number of mild traumatic brain injury cases in the region (Regional Command-East). I quickly became very familiar with the Military Acute Concussion Evaluation exam, the combat stress clinic (complete with two psychologists and one social worker), and our concussion care center officer in charge. I was lucky to have a seasoned physician assistant (PA) (who was on his fourth deployment) assisting me. We ran a very busy aid station since we were the only Role 2 aid station for the 7,000-person FOB and outlying combat outposts. We had a small lab, X-ray, a pharmacy, and a six-cot patient hold area. We were also co-located with the brigade dentist, whom I regularly helped by providing conscious sedation as needed. During my deployment, I personally saw more than 100 patients per month, which included five pregnancies ranging from 6 to 28 weeks' gestation. Due to the constant threat level, I commonly treated insomnia, anxiety, and posttraumatic stress disorder. Sadly, we also had a few suicide attempts, though luckily none were successful.



[Figure 4.14] *Major Christine Vaccaro, DO, operating with the 1st Forward Surgical Team. Photograph courtesy of Major Christine Vaccaro, DO.*

Honor the Fallen. Very tragically, I was present for too many Heroes Ceremonies. The ceremonies were held almost weekly when I first



[Figure 4.15] *Major Christine Vaccaro, DO, operating at Forward Operating Base Shank. Photograph courtesy of Major Christine Vaccaro, DO.*

arrived, and each one was very emotional for me. The US soldiers who lost their lives were given a final salute by the soldiers in their unit and by Charlie Med before they left via helicopter and were returned to their families in the United States. As taps was playing, the helicopters would fly away (usually at night) carrying the flag-covered caskets. As they flew away, they would release flares simultaneously. That scene never got any easier—such young lives gone. The chaplain would always have the same words of encouragement: *live your lives to their full potential . . . live a life honoring the fallen soldier(s)*. I strived to do that on a daily basis.

Feeling Vulnerable. Luckily, Ramadan ended nearly 1 month after I arrived and things became slightly less busy. We were allowed to walk outside without donning full protective gear (body armor, helmet, gloves, and eye protection). However, one afternoon, *again* without an alarm sounding, a very loud boom startled us. A rocket had hit the T-wall (or Bremer wall, a concrete blast wall) near our sleeping tents, which were approximately 100 meters from the aid station. Later that day when I entered my room, I found that my mirror had broken due to the intense vibrations of the rocket that detonated nearby. That was a low point in my deployment, and I felt very vulnerable. I knew that two other soldiers on my FOB had been killed from an incoming rocket when they were sleeping in their tents; however, I also knew there wasn't anything I could do to protect myself if the inevitable were to happen.

My living conditions were very basic. I had a 3-by-3-meter space in the female tent that was visually private via plywood walls, though not audibly private from outside noises and sounds. I could hear every conversation that occurred from the privates and specialists who bordered on my living space. There was no running water anywhere on the entire FOB, so we were at the mercy of the water delivery trucks. If they came, we could take a "combat shower"—get wet, turn the water off, apply shampoo and soap, rinse, and done. If they did not come, you did what you could (eg, baby wipes, deodorant). The bathrooms were relatively new at that time, and they did not work without a daily supply of water. That got messy at times!

Groundhog Day. The days seemed to pass quickly, but it felt like the same day every day (akin to the movie *Groundhog Day*). We didn't really have any "days off," so it was rather monotonous at times. The mornings were usually busy with sick call; the afternoons were slow, but then in the evenings until late in the night it would pick up again. I made the best of it, though. I did cardio or CrossFit in the morning, and then taught a power yoga class in the afternoon. The yoga class was quite fun for me; I instructed five to eight soldiers per class.

I remember when it rained there for the first time since I arrived. There was a muddy mess everywhere, but at least it smelled a little better. We were surrounded by mountains, so the sunrise and sunsets were usually pretty. One time I got up to see some patients at 0300 hours and caught a glimpse of a meteor shower that was happening around the globe. It was *really* dark out there, so I had a great view of the stars.

Learning From the Forward Surgical Team. I dealt with many interesting medical issues while deployed. I treated a nail gun injury to the hand; managed lots of ingrown toenails; injected steroids into alopecia areata (bald patches on the head); reduced small-bone fractures of the hands; and treated many patients with nausea, vomiting, diarrhea, chest pain, sprains, and concussions. (I also put a Foley catheter in a dog, which is a long story.)

Our FST was co-located with us, so I assisted on numerous surgical cases (Figure 4.15). It's not often a gynecologic surgeon and orthopedic surgeon work together! It was fun learning from them. We did weekly grand rounds, I gave lectures, and I also taught the Afghani doctors how to evaluate and manage abdominal pain.

Great People. I had a small support group of other physicians that I met in my Combat Readiness Center class, whom I kept in contact with throughout my deployment. They helped me through many difficult situations and added levity and humor to my daily life. I was honored to have received two intra-theater care packages from my support group of physician friends who were deployed in Afghanistan with me at the same time. My family was another source of enjoyment and support. I was able to FaceTime with my family almost daily. Occasionally, an incoming rocket attack would happen while we were talking, which was always difficult to explain to them.

I remained as positive as possible by sticking to my routine of CrossFit in the morning, meditation in the midmorning and early afternoon, and teaching yoga daily in the evening. The days, weeks, and months eventually passed. I was thrilled the day that I received my release from theater memo! I'll never forget the helicopter flight I took as I was leaving my FOB. I almost held my breath as it took off . . . I knew I would be safer anywhere other than FOB Shank. I was elated when I arrived at BAF, where I had running water, coffee shops, bazaars, and beauty salons, but not the daily "INCOMING, INCOMING, INCOMING" alarms and rockets that followed. I felt an overwhelming sense of peace and calm. I was giddy from the excitement of seeing my family in a few more days. I had left my 12-month-old son, 4-year-old daughter, and husband when I deployed.

Despite my rather dangerous surroundings, the deployment put my life into perspective—literally. I do not sweat the small stuff anymore. I do not take myself so seriously. I do spend as much time as possible with my family and friends doing things that I enjoy. Soldiers gave their lives for me to live my life in FREEDOM. I attempt to honor them every day by being true to myself, spreading love and kindness, and being the best person, mother, wife, daughter, sister, friend, physician, and soldier that I can be because *life is precious*.

THOUGHTS ON DEPLOYMENT

I did not feel adequately prepared mentally for the daily incoming mortar attacks on our FOB, although I don't know if anyone could ever be "adequately prepared" for that. However, I did my best as a primary care physician.

Although I occasionally assisted the FST surgeons with cases (general surgery and orthopedic), it was infrequent and limited. My predeployment training (Tactical Combat Medical Care Course) was invaluable, but a 1-week course cannot possibly prepare a gynecologic surgeon to be a primary care physician to a patient base that was 95% male in a complex and austere environment. However, I feel I am a better physician because of my experiences.

I was not utilized specifically as a gynecologic surgeon; however, the Role 1 aid stations knew I was available for gynecologic consultations. I did encourage menstrual suppression via continuous oral contraceptives for all female soldiers who presented for an appointment. I also held a health fair event and gave lectures on menstrual suppression. I diagnosed pregnancies in five active duty women, ranging from 6 weeks to 28 weeks gestation, and I provided dating ultrasounds (vaginal and abdominal) during their appointments.

I think the field surgeon slot is a challenging role for gynecologic surgeons who may not have had contact with male patients or performed primary care since their internship; however, most patients who presented to our aid station could be managed by a PA. Although many gynecologic surgeons may not feel comfortable serving as primary care physicians, we can certainly fill the slot.

LIFE AFTER DEPLOYMENT

After her deployment, Major Christine Vaccaro, DO, later served as the Female Pelvic Medicine and Reconstructive Surgery Fellowship director at Walter Reed National Military Medical Center.

MAJOR SAIOA TORREALDAY, MD

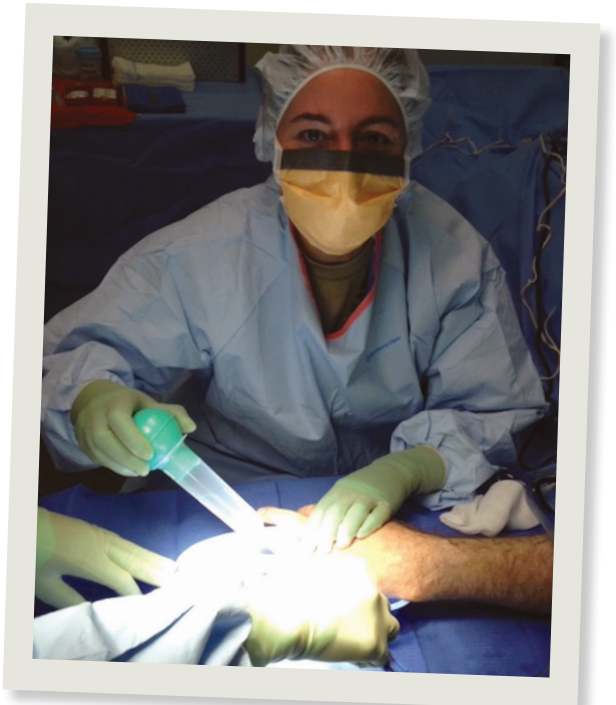
Major Saioa Torrealday, MD (Figure 4.16), served as chief of gynecologic surgery and obstetrics, 21st Combat Support Hospital at Camp Arifjan, Kuwait, during Operation Enduring Freedom from June 2014 to December 2014.

UNIT AND OPERATIONAL BACKGROUND

21st Combat Support Hospital

My unit's mission was to provide Role 3 care to Camp Arifjan and all the surrounding US Central Command area of operations.

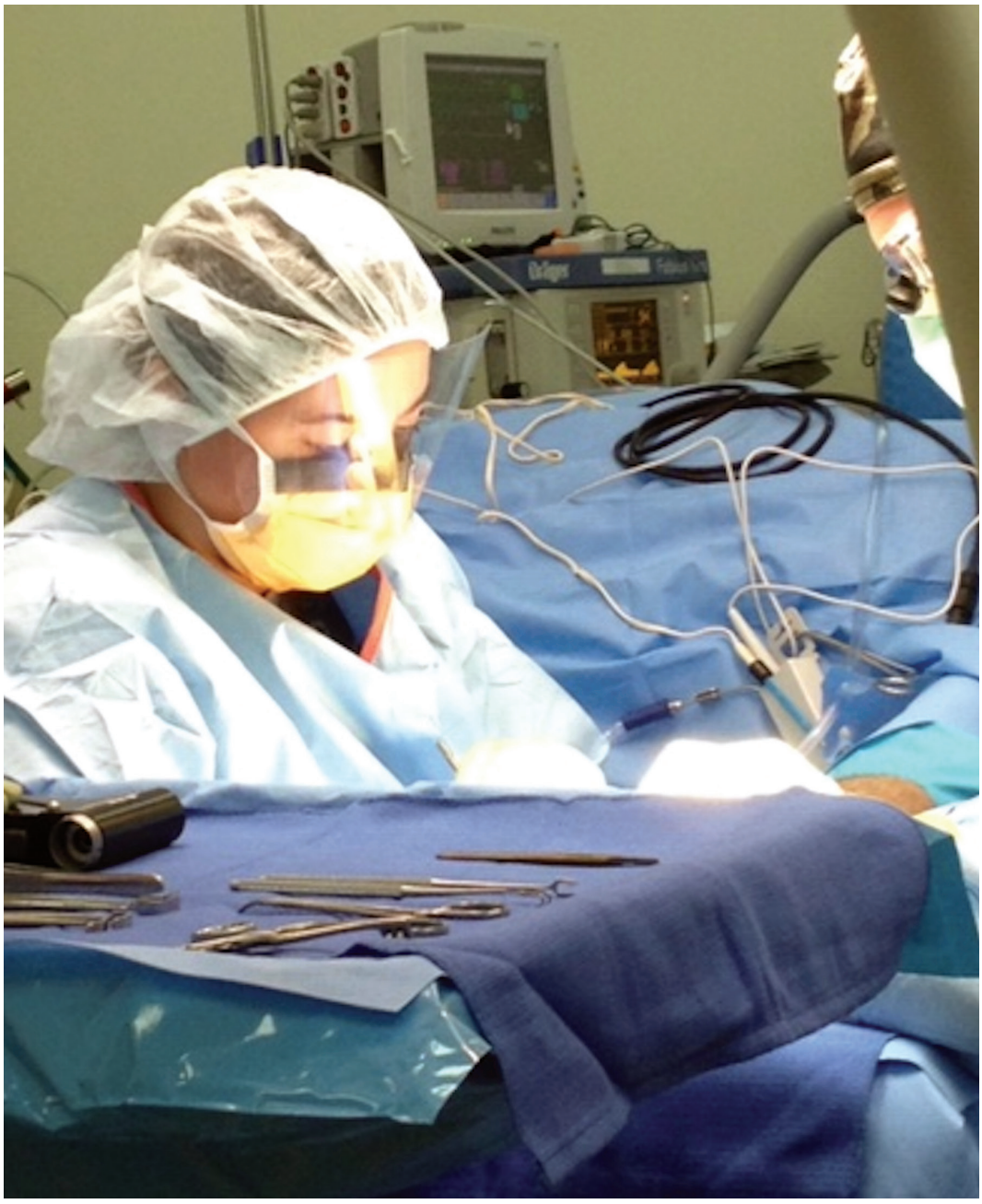
Gynecologic Specialty Consultant. I deployed with the 21st Combat Support Hospital in support of OEF for almost 6 months. In that role, I was the gynecologic surgeon responsible for providing care to female patients in Camp Arifjan and the supporting US Central Command area of operations. The surgical specialties represented in our unit included two general surgeons, an orthopedic surgeon, an anesthesiologist, and me. I saw routine and acute gynecology patients at Camp Arifjan on a daily basis; however, I was also the consultant to an outside FOB that encompassed over 16,000 soldiers.



[Figure 4.16] *Major Saioa Torrealday, MD, gynecologic surgeon, at the 21st Combat Support Hospital in Camp Arifjan, Kuwait, 2014. Photograph courtesy of Major Saioa Torrealday, MD.*

In the early stage of my deployment, the scale and extent of injuries decreased and the number of active forces started to decline. By the midpoint of my deployment, Operation Inherent Resolve had begun and the fight against the militant organization Islamic State of Iraq and Syria (ISIS) became an apparent reality. The number of troops being sent downrange increased substantially during that time, and the number of patients I saw reflected the changes in theater operations.

We had two operating rooms with both laparotomy and laparoscopy equipment at our combat support hospital (Figure 4.17).



[Figure 4.17] *Major Saioa Torrealday, MD, in the operating room at the 21st Combat Support Hospital, 2014. Photograph courtesy of Major Saioa Torrealday, MD.*

Additionally, I had the availability to perform most vaginal surgeries (suction dilation and curettage [D&C], hysteroscopy). I was fortunate in that our unit had substantial surgical capabilities. Medications were limited, but I don't feel like it compromised care. On occasion, I had to vary the medication prescribed due to short supply.

Our unit performed approximately 30 orthopedic cases, and I was first assistant on all of them. I also assisted with 10 general surgery cases—typically when one of the other general surgeons was not available.

Amman. I was privileged to participate in a joint military medicine exercise with the Jordanian military in Amman, Jordan. One week was spent at a medical conference focusing primarily on Syrian relief missions and joint military operations. At the conclusion of the week, the Jordanian military performed an exercise that highlighted its medical capabilities.

THOUGHTS ON DEPLOYMENT

The events of 9/11 occurred during my first month of medical school at the Uniformed Services University of the Health Sciences, so I witnessed the travesty of war from its initiation. I vividly remember assisting with air evacuations that were coming into Andrews Air Force Base during my years as a medical student. I then went on to do residency, followed by fellowship, while remaining on active duty. Deployments were frequent among colleagues and staff members, and I knew that upon completion of my training I, too, would be sent. I felt adequately prepared for deployment on several levels. First, I felt that my medical training was excellent during both residency and fellowship. Second, I think that after so many years in the military, I was mentally ready to serve downrange in any capacity. Hence, I volunteered to deploy when I arrived at my first duty station following my fellowship.

I definitely think the deployment helped me grow as both a physician and person. The relationships I made during those months were invaluable. All the surgeons relied on each other for assistance during cases and as consultants on challenging clinical situations. I can appreciate how difficult it must have been for physicians who deployed before me to do their work, as capabilities at the initiation of the war were not nearly as robust as they were when I deployed. I felt my predeployment and residency training prepared me well to assist on challenging cases. When I was in the operating room, particularly on cases with limited resources, I felt like I improved as a surgeon.

LIFE AFTER DEPLOYMENT

Lieutenant Colonel Saioa Torrealday, MD, remains on active duty at the time of publication and serves at Walter Reed National Military Medical Center in the Department of Gynecologic Surgery and Obstetrics. She is also an associate professor at the Uniformed Services University, currently serving as chief of the Division of Reproductive Endocrinology and Infertility.

Lessons Learned . . .

Lieutenant Colonel Bret Guidry, MD

- **Taking care of our soldiers is a privilege.**
- **Train everyone to help in a MASCAL (cooks, administration . . . everyone).**
- **Ensuring that all available resources are focused on stabilizing and evacuating our wounded in remote outposts improves casualty care.**
- **It is critical to drill MASCAL exercises frequently to ensure your team can respond with consistency and precision when needed —at a moment's notice.**
- **Always be prepared to provide extended care for wounded soldiers, as air evacuation assets are not always available when you request them.**

Lieutenant Colonel Hunter A. Hammill, MD

- Take an orthopedic text with you. Yes, it is heavy but it's worth it.
- lf there is a lack of running water and no plumbing, expect to see diarrhea—lots of it.
- Taking trauma life support courses would have been helpful prior to deployment.

Captain Erin A. Keyser, MD

- Expect to be called upon to verify and sign death certificates.
- Read up on orthopedic complaints—you are going to see a lot of them.

Major (P) Belinda J. Yauger, MD

- Predeployment primary care refresher training would be helpful.
- **Orthopedic skills are a real plus—either read up or train up on them.**

Major John M. Csokmay, MD

- **It was a pleasure to teach and mentor the young medics; in turn, they taught me how to be a better soldier.**
- I learned to appreciate and respect other cultures.
- I feel like I am a better officer and physician from my deployment experiences.

Major Christine Vaccaro, DO

- Don't sweat the small stuff.
- Life is precious.
- **Honor those who have given their lives by living your life to the fullest.**

Major Saioa Torrealday, MD

- **I think many people underestimate the role of gynecologic surgeons in theater. It is often overlooked that we can serve both as a surgeon and in a primary care setting.**
- During my deployment, some of the most critical patients were females who required surgical care. Additionally, out of all the blood products that were given in theater, the majority were for gynecologic surgical cases.
- **Because I was at a Role 3 hospital and on a base with many women, gynecologic services were quite busy. I would argue that gynecology and orthopedics were the two busiest services during my deployment.**

CHAPTER 5

Multiple Deployments During Operation Iraqi Freedom, Operation Enduring Freedom, and Operation New Dawn

The following accounts are from US Army gynecologic surgeons who deployed multiple times in support of Operation Iraqi Freedom, Operation Enduring Freedom, and Operation New Dawn. Operation New Dawn began on 1 September 2010, and ended on 15 December 2011. In the following accounts, the surgeons share their unique personal experiences, operational challenges, lessons learned, as well as numerous other highs and lows encountered while providing combat casualty care through multiple deployments downrange.

“Gynecologic surgeons have filled almost every medical role in these two theaters of war. The stories, like the wars, vary in both job title and epochs.”

—COL PETER NAPOLITANO

[Figure 5.1]
Lieutenant Colonel Mark S. Ochoa, MD, brigade surgeon for 1st Sustainment Brigade, at Camp Arifjan in Kuwait, 2010. Photograph courtesy of Lieutenant Colonel Mark S. Ochoa, MD.

LIEUTENANT COLONEL MARK S. OCHOA, MD

Lieutenant Colonel Mark S. Ochoa, MD (Figure 5.1), served as battalion surgeon, 113th Armor, 1st Armored Division in Baghdad, Iraq, during Operation Iraqi Freedom from July to November 2003. Later, he served as brigade surgeon, 1st Sustainment Brigade at Camp Arifjan, Kuwait, during Operation Iraqi Freedom from October 2010 to March 2011.

UNITS AND OPERATIONAL BACKGROUND

113th Armor, 1st Armored Division

Deployed During Operation Iraqi Freedom: July to November 2003. The unit's mission was to secure our district in Baghdad (Kadhimiya) after the war started in 2003. The unit conducted searches, protected civilians, and started stabilization operations in the area. The unit also performed numerous humanitarian missions, including implementing power, water, and sewer infrastructure, and delivering supplies to local civilian hospitals. I provided medical care to civilians—especially the children identified by company commanders during their missions outside the forward operating base (FOB). I went to homes and saw people with common colds, orthopedic injuries, and major birth defects. I did physicals on the new Iraqi Army soldiers and new police recruits and took care of all the soldiers on our FOB, as well as some local Iraqi leaders, prisoners, and other civilians who worked on the FOB.

The night I arrived was on the same day that US forces caught Saddam Hussein's sons. There was lots of celebratory gun fire (which scared my family when I used the satellite phone to call home). The living facilities were minimal; we occasionally lost power and ate meals ready to eat (MREs) and tray-based heat and serve rations, or T-rats, for the first couple of months. It was prior to the troop buildup and before improvements were made to the FOBs to make them more "comfortable." We wore full protective combat gear (body armor) all the time, and because of the intense heat of the summer, I often treated soldiers and Iraqis for heat injuries (exhaustion, stress, or stroke). One Iraqi detainee died from heatstroke—despite my attempts to save his life, which included intubating and transferring him to a local hospital for a higher level of care.

We burned our waste; sadly, my first soldier casualty was a burn victim who threw gas on an already open flame, which blew up on him. We had soldiers who were hit by improvised explosive devices (IEDs), and if their point of injury was close to us, they would be brought to me for care. If the point of injury was farther away, they would be evacuated directly to the combat support hospital (CSH). Our first sergeant sustained a fractured pelvis after being run over by a car trying to rush through a checkpoint; I traveled with him via air evacuation to the CSH. I went to several houses and provided primary care to civilians, trying to win "hearts and minds" of the locals. I treated soldiers who sustained orthopedic trauma and injuries after chasing enemy forces, or by playing sports on the FOB. The worst thing about my deployment was arriving and departing, as the system was not as organized then as it later was—and I felt lost in the system.

1st Sustainment Brigade

Deployed During Operation Iraqi Freedom: October 2010 to March 2011. During my second deployment, I was a brigade surgeon for 1st Sustainment Brigade (1SB). Our mission included the largest retrograde of supplies since World War II—repositioning supplies back into base logistics camps from far-forward locations in support of combat operations. My assignment as a brigade staff officer was to advise and inform the brigade commander about the health of the brigade. I tracked medical evacuations (MEDEVACs), followed Medical Protection System (MEDPROS) data, gave lectures, and arranged battalion-level mass casualty (MASCAL) exercises. During the last 45 days of the deployment, I was the primary gynecologic surgeon at Expeditionary Medical Facility-Kuwait (EMF-K), where I operated on several patients.

I was attached to 1SB, which was a very well-run unit headquartered in Kuwait. The deployment was split between another physician and me; I had the second half of the deployment, so he had a fantastic system already set up when I replaced him. I worked 10- to 12-hour days Monday through Saturday doing administrative work at Camp Arifjan (which was similar to an Army post in the United States). I felt safe there and never wore body armor. I was assigned as the medical advisor to the brigade commander, and I worked with the deputy commander for operations. I visited soldiers in the hospital, followed up on soldiers sent back to the United States, and supervised our medical section. The Navy commanded the EMF-K on the camp and provided Role 3 care; I served as a consultant for gynecologic cases and performed numerous cases as a surgical assistant there. The hospital also provided many continuing medical education lectures for physicians.

THOUGHTS ON DEPLOYMENT

I felt like a fish out of water at the start of both deployments. I was relatively fresh out of training the first time, so providing primary care was not difficult. *Getting shot at and mortared frequently, and wearing full body armor during the summer increased my stress levels; however, attending the Uniformed Services University provided me the background for success at my job.*

The first deployment as a battalion surgeon included primary care and some emergent-level care. We had a well-stocked aid station, and the CSH was relatively close to our location. We did have problems getting medications from our brigade; however, I utilized resources from the CSH to get what we needed.

The second deployment was very safe and was similar to being at a US military base with all the associated amenities. The greatest limitation in my experience was performing the battalion and brigade surgeon duties, which I had not done before. Prior to my second deployment I attended Command and General Staff College—which was very beneficial. It took me a little while to get up to speed on performing the administrative duties as a brigade surgeon, however. Understanding line units and their needs, desires, and missions was the key to my success. *Command and General Staff College prepared me for and increased my understanding of my role as a brigade staff officer.*

I provided very little gynecologic surgical services during my first deployment, as I was with an armor unit that did not have many female soldiers. During my second deployment we had access to EMF-K and were able to provide full gynecologic surgical care. Not having a pathologist was limiting and having to send all pathology specimens to Landstuhl was a challenge—especially with colposcopy tissue samples.

LIFE AFTER DEPLOYMENT

Colonel Ochoa served as chief medical officer and senior physician executive for Womack Army Medical Center at Fort Bragg, North Carolina. His duties included synchronizing and managing Fort Bragg Military Health System privileged providers and implementing the clinical direction of the organization in accordance with the medical bylaws to achieve organizational goals for over 200,000 eligible beneficiaries. At the time of publication, he serves in a strategic billet as the 18th Airborne Corps command surgeon.

LIEUTENANT COLONEL (P) GARY R. BRICKNER, MD

Lieutenant Colonel (P) Gary R. Brickner, MD (Figure 5.2), served in Operation Enduring Freedom as C Company medical officer, 113th Logistical Support Battalion, 76th Brigade, Indiana Army National Guard, Camp Phoenix, Kabul, and Forward Operating Base Gardez, Afghanistan, from 2004 to 2005. In 2007, he deployed in support of Operation Iraqi Freedom as officer in charge of a troop medical clinic, 206th Area Support Medical Company, Missouri Army National Guard at Camp Anaconda in Balad, Iraq. In 2011, he deployed for the third time and served in Operation Enduring Freedom as medical officer, 402nd Military Police Battalion, Nebraska Army National Guard at Camp Sabalu-Harrison in Parwan Province, Afghanistan.

[Lieutenant Colonel Brickner's personal account of the mobilization process is included in the annex "Getting to War: A Personal Account."]

UNITS AND OPERATIONAL BACKGROUND

C Company, 113th Logistical Support Battalion

[Figure 5.2] *Lieutenant Colonel (P) Gary Brickner, MD, at Camp Sabalu-Harrison, Parwan Province in Afghanistan, 2011. Photograph courtesy of Lieutenant Colonel (P) Gary Brickner, MD.*

Deployed During Operation Enduring Freedom: 2004 to 2005. The 76th Brigade worked alongside contingents from Great Britain, France, and Germany, whose mission was to assist with "standing up," or training, the new ANA to make them operational. While Taliban resistance had diminished greatly since the onset of hostilities, there were still pockets that had to be dealt with. There continued to be an uneasy truce with the warlords who, despite the democratic elections, still controlled most of the country.

I was assigned to C Company ("Charlie Med"), 113th Logistical Support Battalion (BN), 76th Brigade, of the Indiana Army National Guard, and I was stationed at Camp Phoenix, Kabul, and Forward Operating Base (FOB) Gardez. Our mission was to provide medical care to all the soldiers in our camp, including those of coalition countries, as well as Afghan nationals who came to the gate with

emergent problems. In addition, we supplied medical support of force protection soldiers patrolling the surrounding areas (including Kabul).

I performed civil affairs (CA) missions in the Kabul area on a weekly basis. The CA missions included providing medical care to Afghan citizens at various villages around Gardez and Kabul. The mission also involved providing food, clothing, and medical care to an orphanage in Kabul. In Gardez, I supervised six medics and performed multiple combat patrols in medic capacity. I also trained Afghan National Army (ANA) surgeons and medics in rudimentary battlefield medicine.

Afghanistan Diary. I performed my first patrol with a CA unit. We went up into the mountains to a small village, where a man asked us to see his daughter, who was burned in a propane tank explosion (a very common occurrence) 6 months earlier. She had not been seen by a doctor at all, as the health care system in Afghanistan was practically nonexistent. I debrided and treated a large part of her leg and would continue to see her until she was healed. Her father practically kissed my feet because he was so grateful, and he even asked me to break bread with him—the highest compliment there—but we politely declined. I also saw a little girl who lost her left hand when she picked up a land mine disguised as a butterfly. We would try to get her fitted for a prosthesis.

I recall going out on my first combat patrol. (Our unit supplied medical support for the combat patrols—sometimes with medics, and other times with doctors.) There were several reasons for conducting the combat patrols. First and foremost, they were meant to provide force protection and ensure that the enemy wasn't getting too close to our position. In addition, much like a police patrol, they enhanced the feeling of safety for the villagers. When the patrols first began after the Taliban were routed, very few villagers would venture out of their homes. Finally, these patrols allowed the villagers to interact with us in, ideally, a positive manner. While most boys would approach us without hesitancy, the girls only rarely did.

To me, Afghanistan appeared "downright biblical," and I doubt things looked any different 5,000 years ago than they did when I was there in 2004. The living conditions are abominable by Western standards: the only water was from a community well (when it was even working), and the only sewer system in place were the ditches you would see running down the center of most streets. *Often, we would stop and give first aid to a child who had a cut or infection. What would be merely a nuisance for a child in the United States could be life-threatening in Afghanistan due to the lack of hygiene and lack of even the most basic medical care.*

If there was any place in this world where the United States can be said to have acted on mostly humanitarian impulses, I think it would have to be Afghanistan. While we went there to "punish and

destroy the Taliban" for their role in Al-Qaeda and 9/11, we stayed to help rebuild because without us, many people would simply struggle to survive. Although Afghanistan has some strategic importance due to its proximity to Iran and Pakistan, it has little or no natural resources—and certainly no oil. Once the Taliban were vanquished, it ceased to have a major role in our national defense.

Our decision to remain in Afghanistan was more laudable than we have, perhaps, received credit for. It is also why we were joined by most of our North Atlantic Treaty Organization (NATO) allies there. As opposed to Iraq, allies such as Great Britain, France, Germany, and Spain had sizable contingents there. They also had much better dining facilities, which is why we never hesitated to accept our counterparts' invitations to come visit them for dinner—but that is another story.

Not Even a Rudimentary Health System. Twenty years of constant warfare, first against the Russians and then with the Taliban, largely destroyed the country's entire infrastructure. Most health clinics, especially those catering to female needs, were outlawed by the Taliban. Many Afghans preferred to remain home rather than travel to one of the hospitals in Kabul (most of which were no more than a small clinic with a few inpatient beds). *Many hospitals lacked even basic items such as soap.*

Trying to Rebuild. The Department of Defense (DOD) granted money to every military unit in Afghanistan to fund local humanitarian assistance projects. The Indiana National Guard, along with contributions from the people of Indiana, also made it their project to help one particular village. The funds went toward constructing a community center that included a health clinic that would treat female reproductive health issues and a grade school for the almost 500 children of this and the surrounding villages. Most importantly, it would have electricity and a modern sewer system. The battalion commander invited some of the doctors to accompany him to witness the moment that the electricity was turned on for the first time in decades.

My medical company was assigned many missions that required us to drive through the downtown Kabul area. *We always kept our windows down so we could quickly toss out anything that was thrown into our vehicle and rapidly return fire, should the situation require it. It also allowed us to have our weapons extending out from the vehicle, which was usually enough to discourage "bad behavior."*.To describe that part of Afghanistan's capital city, I would have to start by comparing it to the Lower East Side of Manhattan during the height of the pushcart era, then add a fair amount of Hollywood Casablanca, and mix in a sizable dollop of bombed-out, post-war Berlin. Then throw in traffic that consisted of pedestrians, cars, buses, bicycles, horse- and hand-drawn carts on narrow, dusty streets that were traveling in different directions (without the benefit of traffic lights, identifiable lanes, or street signs), and what you end up with gives chaos a good name. It made it very difficult to adhere to Army doctrine

regarding convoys: never stop and never get separated. Often, we were at a dead standstill with civilians of all types crowding our vehicles and vying for position.

But Kabul is a city of contrasts. Imagine driving in the worst inner-city slum and suddenly coming upon a partly ruined Grand Central Station terminal. That happens frequently in Kabul, and it reminds you that there once existed, on this very spot within our lifetime, a grander society. One is put in mind of what ancient Rome must have been like just after its sacking—the inheritors of a mighty empire scurrying around the ruins eking out a meager existence, only acutely aware that what was so recently theirs will never be again. Only a minority of women wore the burka (although they certainly stood out), but most covered their heads with shawls and avoided eye contact with males.

The larger buildings were generally mosques, but there were a few government buildings that looked like those in Washington, DC. From a distance, the houses on the hillside resembled San Francisco, but up close they appeared to be run-down dwellings.

The Orphanage. The 113th Support BN of the Indiana National Guard opted to add the Alauddin Orphanage in Kabul to its civilian projects. It would aid in providing the care for over 700 boys and girls, ranging in ages from infant to early teenager. Most of the orphaned children lost their parents during the Taliban regime of the late 1990s and the fighting that ensued after 9/11. These kids were not adoptable, as the new government placed a moratorium on all adoptions until it could be certain that none of the parents were alive somewhere in Afghanistan or Pakistan and still trying to find their lost children.

Located in what was once an exclusive boarding school, the facility was only a superficial resemblance to its tonier predecessor. Like most such places in Kabul, it had fallen into serious decrepitude with broken windows and leaking roofs. The dormitory rooms were the only areas that were heated—and that was by wood-burning stoves. There was electricity available only at night from a generator (that threatened to quit each day). Most of the indoor plumbing was nonfunctional, and the kids would wash and go to the bathroom in outdoor stalls.

The immediate problems the 113th found, besides the deteriorating physical plant, were shortages of shoes, warm clothes (especially for the older girls), school supplies of all kinds, and, of course, toys. Fortunately, donations of all those items later poured in from Indiana and were in good supply. When those gifts were given out to the children, they responded in the same manner as all kids—with wide smiles and happy cries. The boys would dash off to play with their new toys and the older girls would run to their rooms to try on new clothes and share makeup and other beauty supplies.

Responsibility for repairing and renovating the buildings, coupled with the collection and distribution of materiel, was given to the maintenance and engineering units. *Charlie Med was assigned the difficult task of upgrading the markedly deficient medical care the children received. Although there was an Afghani physician on site daily, he was hampered by an almost total lack of medication, and was without even the most basic medical equipment.* The incidence of upper respiratory infection among the children was enormous—due in no small part to the close living quarters—and with winter almost there, we had an acute need for pediatric drugs. As an interim measure, we were able to raise enough money from the officers and enlisted members of our unit to make an emergency purchase of medications from local pharmacies. The low cost of drugs there enabled us to obtain over $1,000 worth of medications for just about $200. Enthusiasm for our mission was high, and we planned to staff the clinic every week and keep them resupplied with meds until we could work out a permanent source of funding.

Every visit to the orphanage was, at best, bittersweet. There is satisfaction knowing that the Afghanis, with our assistance, were keeping these kids from the depredations of the street; but there is a sadness knowing that so many would grow up without mothers and fathers—not because of a disease or natural disaster—but because others chose to make Afghanistan an "ideological battleground."

Health Care Facility Inspections. To assess the true nature of medical care available to the Afghan population, our commander tasked me with the mission of performing an onsite inspection of health care facilities in the greater Kabul area. We decided to concentrate on maternity and children's hospitals. I wish I could have reported that things were better than expected, but in fact, they were worse. If it is true that a civilized society is judged by the care given to its children and pregnant women, then Afghanistan, at that point in its history, must be judged harshly.

The first facility we inspected (still sporting its old sign from the Taliban era) was really no more than a birthing center, and a poorly equipped one at that. The personnel were almost all female, and while they seemed genuinely committed to their patients, there were none of the safeguards we have come to expect from even the most basic maternity center in the West. The fathers were forced to stand outside the gate to await news, and they weren't too happy with us poking around. Another maternity hospital in Afghanistan's capital was dirty beyond belief, and the personnel were barely trained. Instruments were reused after only being rinsed off because sterilizers were not available.

The medical care that was delivered to the children of Afghanistan was even more heart wrenching. The Indira Gandhi Children's Hospital was built by India in the 1970s and was state of the art at that time. Under Indian direction, it had an excellent training program for Afghan physicians. When the Russians invaded in the early 1980s, the fighting intensified and the Indians left; the hospital had been in a steady physical and medical decline ever since. The temperature in the building was not even 50 °F, and we found

parents begging the staff to turn on the electrical outlets so they could plug in electric blankets. All sheets, pillows, food, etc., were brought to the hospital by the parents. Patients shared broken-down beds and several were even lying on desks because of a shortage of beds. Most of the children were admitted for trauma (usually due to being hit by vehicles), burns, infections, and congenital anomalies. Afghanistan is a very dangerous country for kids. The care rendered seemed to be the same for all: IV antibiotics, minimal intervention, and wait. Surgery was almost never performed due to the extremely high morbidity and mortality rates. There were plans to improve conditions, but it would take time, effort, and money. Most people knowledgeable of the situation there felt like 15 to 20 years would pass before health care in Afghanistan reached a level most of us would consider adequate. (And that was if political stability ensued in the country, along with the continued help and commitment of other nations—but neither were a certainty there.)

American Soldiers Downrange in Gardez. When the men and women on this deployment had been on active duty and away from home for 8 months, and in Afghanistan for 6—with another 6 months yet to go—they were well past the shock, anger, and denial phase, and were deep in the acceptance phase. They no longer expected an 1100 reprieve telling them this was just a drill or someone's idea of a joke. They no longer viewed home as their real lives, for this was where they lived. They no longer thought much about their jobs and careers, for this is where they worked.

Space at this post was tight, so I was billeted with a squad of security force infantry. Aside from a few older noncommissioned officers (NCOs), they were all in their early to mid-20s. Most were forced to leave college or their entry-level, white-collar jobs and trades for this deployment. None had asked to be there. Almost all joined the National Guard for tuition benefits or because their friends did, and they followed suit. None of them thought they would ever be where they found themselves.

In the barracks, they acted like most other guys their age: speaking casual profanity and scatological references and playing music and videos. But most of the time, it was just a backdrop to more serious activities, such as breaking down and cleaning their M-4 rifles, M-249 squad assault weapons, and 50-caliber machine guns. They had become so good at those tasks that they were automatic behaviors, as natural to them as going to chow—and were performed almost without thinking.

Despite being an officer, to these men I was "the doc," and they would discuss things with me they would never think of saying to their buddies or regular officers. One 24-year-old, whose bunk was down at my end of the hut, even became a friendly acquaintance of mine.

He spoke to me about some problems he was having at home. He and his wife got married in April just before he deployed, and they owned a converted barn on 4 acres. He had been very concerned because

the mortgage of $800 was getting harder to meet on his Army pay. His wife stopped going to college part-time and got a full-time job. He knew he couldn't lose his house while on active duty, but he was angry because he knew that once he returned home he would have to immediately go back to work as a heavy machine operator (and not take some time off as he had planned). The Army was offering soldiers in combat theaters (whose enlistments were soon expiring) an immediate $15,000, tax-free bonus if they reenlisted for 6 more years. And even though he was somewhat disillusioned with the Army at that time, he asked my advice on whether he should take it or not.

The Mission Endures. The critical point of my digression is this: whatever his feelings about the Army or the mission were, he never missed a duty call and he was never anything but a positive force once he was "on the line" with his fellow soldiers. *As with every other man and woman there, when the time came, they focused on the only thing that mattered: the mission.*

Our missions would continue to go on day after day. At 0500 on a snowy morning with the temperature around 0 °F, they would get up, dress quietly, gather their weapons, and go out to slog through the snow and mud just as their family members (who were US Armed Forces veterans) did before them. And like those before them, they also did this thousands of miles from home—not for some vague idea, but because this was where their country sent them, because their buddies depended on them, and because they wanted to get the mission done and go home to live out the rest of their lives.

206th Area Support Medical Company

As a member of the 206th Area Support Medical Company (ASMC) of the Missouri Army National Guard, I was stationed at Camp Anaconda, Balad, where I served in the troop medical clinic and cared for more than 100 service members daily. I saw everything from upper respiratory infections to severe concussions resulting from IED explosions. The operational tempo was extremely high during what became known as "the surge" (of troops).

402nd Military Police Battalion

Deployed During Operation Enduring Freedom in 2011. During my deployment with the 402nd Military Police Battalion (MP BN), Nebraska Army National Guard, I was stationed at Camp Sabalu-Harrison (a satellite of Bagram Airfield) at the Parwan Detention Facility—the main theater detention facility for Taliban and other detainees. While there, I performed detainee operations and provided care to coalition forces. Detainee operations included in-processing and then ongoing care and monitoring of medical and surgical problems (usually wounds suffered in combat or during capture).

I was posted to a small base just outside of Bagram, Afghanistan. It was considered a joint base because it was manned by personnel from all the branches of the US Armed Forces (including the regular US Navy, Air Force, and Marines), although the largest contingent was that of the Army—mainly National Guard and Reserve soldiers. The latter units came from across the United States, especially northern California, the Midwest, and New England. Then, there was me—representing the great Garden State of New Jersey. There were some interesting discussions in the dining facility, and it may surprise you that the discussions weren't ever political. Soldiers, I have found, almost always kept their personal political views to themselves. We were there to carry out a mission, and political views were irrelevant to that. The US military takes its duty to execute policy (and not to create it) very seriously.

One of the main functions of the 402nd MP BN was to process and hold many dangerous Taliban prisoners. The United States took extraordinary measures to ensure that all prisoners and detainees were treated humanely and with respect since the incidents occurred at Abu Ghraib in Iraq—and that included providing medical care. I was the battalion surgeon for a National Guard MP BN from Nebraska whose members were an integral part of the security there. As such, I split my time between tending to the MPs' and prisoners' medical needs (as well as providing care to all the other US military and coalition forces on the base).

I recall one busy day. I sutured an accidental facial laceration, medically cleared several prisoners both before and after their interrogations, sedated someone on suicide watch, and was informed of a possible heart attack—and still had 8 hours of my 11-hour shift to go. Plus, before the night was over, I had to make rounds on about 50 detainees on the prison medical unit and either give or supervise the administration of parenteral medications to some of them. *Despite my 30 years in medicine, nothing I had ever done in my civilian or military life had quite prepared me for this mission, but that was also true for most of the people I served with: three doctors, four physician assistants (PAs), one of whom was also a certified nurse midwife, and several nurse practitioners.*

There was not a "rah-rah" atmosphere there; it was just a grim determination by a lot of good men and women to see their mission through. They would move the ball down the field a few yards and hand it off to the next group before going home to resume their interrupted lives.

THOUGHTS ON DEPLOYMENT

My surgical skills were mainly confined to emergency medicine covering the suturing of lacerations and the debridement of wounds and infections. My civilian training included a medical internship with significant emergency medicine experience, and my 30 years of medical practice had me well prepared for my assignments. Learning local techniques or area-specific procedures was easily accomplished due to the high volume of patients I saw.

My first deployment to OEF in 2004–2005 was the most challenging, as we initially did not have all the medical equipment we needed. However, we were able to compensate for that with good teamwork and ingenuity. In my subsequent deployments, I had all the equipment and medicine necessary to care for my patients.

LIFE AFTER DEPLOYMENT

Lieutenant Colonel Gary Brickner, MD, returned from a third and final deployment (OEF) in 2011 and resumed his position as the ranking medical officer in the New Jersey Army National Guard (NJARNG) Medical Management Unit. The unit's mission was to evaluate all soldiers on temporary medical disability and determine their current fitness for duty. In 2013 he was promoted to colonel, and in 2016 he was assigned as Deputy Commander of NJARNG Medical Command, which he held until retirement in 2018. While serving as a reservist in the National Guard, Colonel Brickner also resumed his civilian practice in gynecologic surgery and obstetrics. He stopped obstetric practice on 1 January 2020 after 41 years but continues to practice full-time gynecologic surgery.

COLONEL PETER E. NIELSEN, MD

Colonel Peter E. Nielsen, MD (Figure 5.3), served as deputy commander for clinical services, 86th Combat Support Hospital in Ibn Sina, Baghdad, Iraq, during Operation Iraqi Freedom from July to November 2005, and again during Operation New Dawn from April to October 2011.

UNIT AND OPERATIONS

86th Combat Support Hospital

Deployed During Operation Iraqi Freedom: July to November 2005. The 86th Combat Support Hospital (CSH) was assigned to the 44th Medical Command (MEDCOM) headquartered at Fort Bragg, North Carolina, and was a subordinate unit of the XVIII Airborne Corps. Brigadier General Elder Granger was the 44th MEDCOM commander, and their headquarters was located on Camp Victory near the Baghdad International Airport. Our hospital was in the International Zone (IZ) (formerly known as the "Green Zone," and named for the weapon status for the area) in a building that had been home to several other CSHs from 2003 to 2005. The hospital was also near the parade field (Figure 5.4) and the Tomb of the Unknown (Figure 5.5), which are both impressive structures.

[Figure 5.3] *Colonel Peter Nielsen, MD, deputy commander for clinical services for the 86th Combat Support Hospital at Ibn Sina International Zone, in Baghdad, Iraq, 2005. Photograph courtesy of Colonel Peter Nielsen, MD.*

The hospital was named after Ibn Sina, a famous Persian polymath, whose writings on medicine resulted in his becoming known as the "Father of Early Modern Medicine." In fact, his texts would be used in medical teaching from their writing in approximately AD 1000 through medieval times and until 1650. In addition to medicine, he wrote about astronomy, alchemy, geography, geology, psychology, Islamic theology, logic, mathematics, physics, and poetry.

Father's Day. I left for my deployment on Father's Day in 2005. The night before leaving, my family watched *Jonah: A VeggieTales Movie*

[Figure 5.4]
The Hands of Victory, also known as Swords of Qādisīyah and Arc of Triumph, are a pair of hands holding swords that are crossed and mark the entrance to Great Celebrations Square and the parade ground in Baghdad, Iraq. Photograph courtesy of Colonel Peter Nielsen, MD.

[Figure 5.5]
Tomb of the Unknown in Baghdad, Iraq. Photograph courtesy of Colonel Peter Nielsen, MD.

because, like me, Jonah (the main character in the movie) did not really want to go to Iraq either. My nine-year-old son commented that it would be hard to like the "fish slappers" (or antagonists) in the *VeggieTales* movie, and I agreed, but told him that sometimes you just have to do what you are commanded to do.

My assignment to the 86th CSH resulted from a personal request by The Surgeon General (Lieutenant General Kevin C. Kiley, MD) who had, at that time, recently visited the CSH during a tour of the combat zone. The 86th CSH had been in country for a few months and needed a new, permanent deputy commander for clinical services (DCCS). I had been the Gynecologic Surgery and Obstetrics Residency Program Director at Madigan Army Medical Center for the past 6 years and I had also been the Office of The Surgeon General Consultant for 2 years—so it was time for me to contribute. By that time, more than 50 gynecologic surgeons had deployed and served in operational roles ranging from being a battalion or brigade surgeon to commanding a forward surgical team (FST).

I served concurrently as the DCCS for Medical Task Force 86 and the 86th CSH in Baghdad, Iraq, and provided combat casualty care for Multi-National Force – Iraq (MNF–I) and Multi-National Corps – Iraq (MNC–I). I also served as the chief of the medical staff and was responsible for planning and executing all interdisciplinary clinical activities and patient care quality improvement programs, ensuring world-class medical care was provided to all the wounded. My responsibilities also included being a medical liaison between the hospital and the 44th Medical Command, all line units, hospitals in theater, and referral institutions. I also served as the temporary commander in the commander's absence. The unit included more than 100 professional staff, and more than 500 soldiers were a part of Medical Task Force 86.

[Figure 5.6] *86th Combat Support Hospital, Ibn Sina, Baghdad, Iraq. Photograph courtesy of Colonel Peter Nielsen, MD.*

The First Few Days. My first full day after arriving at Ibn Sina (Figure 5.6) involved routine events such as

[Figure 5.7] *86th Combat Support Hospital, Ibn Sina Landing Zone, Baghdad, Iraq. Photograph courtesy of Colonel Peter Nielsen, MD.*

morning report and in-processing, as well as the not-so-routine event that included escorting the special envoy from the King of Bahrain to visit his ambassador (who had been shot in an assassination attempt). The opportunity to learn from the entire staff was overwhelming to me at times. Both the soldiers and officers were well seasoned after having been deployed for several months prior to my arrival. It was humbling to work with such professionals, and that is the reason I remained in the Army.

We had a very large number of casualties arrive for care a few days after I arrived. Our landing zone was almost constantly full (Figure 5.7). I slept only about 1 hour that night; between checking on all the staff and patients and first assisting on two surgical cases, the night was gone. Overall, more than half the casualties were Iraqi. The day ended with us providing medical evaluation and care for a Sri Lankan who had been kidnapped and just was released by his kidnappers. Part of my leadership responsibilities included managing and coordinating the care for special casualties, who were from a variety of countries and were in unique circumstances, so they could return to their respective services or countries for additional care. That portion of the job was one that no medical school or residency could have possibly prepared me for; however, the importance of professional contacts and relationships cannot be overstated in relation to those duties.

MNF-I provided oversight of the vast array of transition activities that were ongoing within the country, and our unit's responsibility included supporting that effort by supervising and teaching the Iraqi Special Forces physicians. We had several of these physicians rotate through the hospital, and they provided some of the care for Iraqi military and civilian casualties while under the direct supervision of our clinical staff. The importance of providing that service was reiterated during many of our meetings at MNF-I headquarters at Camp Victory.

Battlefield Circulation: 555th FST and Task Force South. I traveled in UH-60 Black Hawk helicopters to other posts, camps, and stations where members of our task force performed amazing care in austere conditions. Among the direct reporting units within Task Force (TF) 86 was the 555 FST in Al Diwaniyah at Camp Echo. I visited that unit as part of battlefield circulation early in my deployment and met with their commander, Major Cory Williams, and chief of surgery, Lieutenant Colonel Tom Crabtree (a general and plastic surgeon). The unit provided critical resuscitative surgical care for the region and their service, as well as the 86th CSH team at Ibn Sina, was highlighted in the Home Box Office (HBO) documentary *Baghdad ER*. This film, released by HBO on 21 May 2006, was the winner of four Emmy Awards, including Outstanding Directing for Nonfiction Programming, and it also received the Peabody Award in 2006.

While I was at Camp Echo, I performed an exploratory laparotomy and abdominal hysterectomy on the FST's interpreter for a large and rapidly growing fibroid—which was suspicious for malignancy (Figure 5.8). The surgery went very well, and she fully recovered, with no evidence of malignancy identified.

Following my visit to Camp Echo, I traveled to Ali Air Base near the ancient city of Ur. This was the location of the 86th CSH TF South

[Figure 5.8] *Colonel Nielsen operating at the 555th Forward Surgical Team, Camp Echo, Iraq. Photograph courtesy of Colonel Peter Nielsen, MD.*

[Figure 5.9] *Colonel Nielsen standing on the steps of the Great Ziggurat of Ur, near Nasiriyah, Iraq. Photograph courtesy of Colonel Peter Nielsen, MD.*

and their incredible team. There I met with Major Tim Nunez, a general surgeon and chief of surgery, as well as the rest of the team. In addition, I was privileged to visit this ancient city (Ur) on a tour sponsored by the 86th CSH chaplains (Figure 5.9). Ur was the city of Abraham's birth, and we were guided at this site by the grandson of one of the original Iraqi archeologists involved in its excavation from 1922 to 1934. While this city appeared to be in the middle of nowhere, it previously was a port city on the Euphrates River; however, due to changes in the river's course and silt deposits, it is now located 10 miles east of the river.

Full Intensive Care Unit. The clinical work never ended, but our staff always pressed on. I was called to the ER one night to assist with the evaluation of a pregnant woman who had been shot. Fortunately, she survived, but the intensive care unit was so full that keeping her in our facility endangered our ability to receive more casualties. As DCCS, I was also responsible for coordinating transfers of patients from our hospital to Iraqi facilities in Medical City (a collection of Iraqi hospitals in Baghdad). This area of Baghdad was home to several hospitals, but they often did not have the space or expertise to care for some of these patients. *To ensure that our hospital had the space to care for US and allied service members, we regularly had to move Iraqi civilian patients to Medical City, sometimes knowing that they might not be able to care for them as well as we could. With limited resources to care for our own soldiers and allies, it was a difficult but necessary task*. To improve the civilian care available, we began an effort to provide trauma, burn, and amputee training to our Iraqi counterparts. The training was designed and executed by surgical experts from the CSH.

The Lieutenant. Sacrifice and dedication were apparent every day. On 7 August, I recorded the following journal entry:

> Tonight, I met nine injured soldiers in the emergency room, or ER. Their LT (lieutenant) told me their story. They had been at a checkpoint to get rations and eat dinner when a vehicle-borne improvised explosive device, or VBIED, detonated about 27 meters from their position. The LT saw a vehicle approach fast and then turn away, with a second vehicle (a van) immediately behind, approaching faster and speeding up. He fired at this vehicle as it sped up and killed the driver, but it (the VBIED) blew up anyway. One of his soldiers was killed, and he blamed himself for not preventing the attack. The unit was exhausted from patrolling and needed rest, so he was providing security while they ate. The LT had been a police officer for 3 years before he decided to join the Army after 9/11. I told him that the purpose for his joining was tonight's action—saving the lives of all those who remained in his unit. Shortly following this, his commander and sergeant major arrived to present Purple Hearts, pinning them on the green Army issued wool blankets that were covering each soldier as they were being treated in the ER.

Thoracotomy in the Emergency Department. One evening, just after I had dinner at the dining facility (DFAC), I saw medics performing cardiopulmonary resuscitation to a wounded soldier (who had just arrived by MEDEVAC) while they were en route to our emergency department (ED). I followed them and I saw that all of the physicians and nurses were busy with other trauma patients. The soldier had a gunshot entry wound to the upper midchest with an exit wound in his back. He was already intubated and had intravenous access, so I immediately placed a left thoracostomy tube with return of blood. He then lost vital signs, so we performed an emergency clamshell thoracotomy. Upon entry into the chest, he had a large hole in his left subclavian artery and vein. Despite clamping and performing cardiac massage, we were unable to resuscitate him. That was a very difficult night, and I prayed for his family.

A Father's Letter. We also cared for members of the Iraqi Army and police officers. We treated one Iraqi patient who had been severely injured and required almost daily care in the operating room. He could not be transferred to an Iraqi hospital due to threats on his life and the severity of his wounds. After nearly 6 months of care in our hospital, he was discharged home under the care of his father who wrote the following letter to our staff:

> *If I gather all the words of thanks, I will not pay you what you deserve. I can't describe with words my feeling toward you. I cannot forget those people who stood with me all this period with smiling faces and hearts full of love and compassion during nights and days. How can I forget the hands that helped me all the time I have been here? Every one of you has a place in my heart that will remain as long as I live. May God help you and keep you away from any evil deeds. I pray to God that you go home safe and sound. I will tell my friends about your kindness. You are angels. I want you to remember that an Iraqi person loved you from all his heart. God bless you.*

The Rocket-Propelled Grenade. September was a very challenging time for our medical team, as we had numerous casualties who we were not able to save. During the first week we saw many significantly injured soldiers, including one who was unstable, hypoxic, and with unknown blast injuries. He had a right chest wound with bilateral thoracostomy tubes placed. A chest X-ray revealed what was thought to be a large piece of shrapnel in the right chest, and he was taken to the operating room for clamshell thoracotomy and exploratory laparotomy. A large metal object was palpable in his right posterior chest and was removed. Upon removal, it was clearly an unexploded ordnance (an RPG, or rocket-propelled grenade), which was carefully and rapidly removed from the operating room and taken to the motor pool area. We immediately contacted the explosive ordnance detachment, who came and disposed of the ordnance. Unfortunately, the soldier did not survive. It was another very tough night for everyone, but heroes abounded there.

On 7 September I wrote the following account in my journal:

> Tonight (and most of the day today) we have been trying to save the life of a 20-year-old soldier injured in an IED blast. He has already had three surgeries in less than 12 hours. The last one has made him more stable, but he remains very ill. His whole unit is here, including his battalion commander. As I was speaking to his commander, I noticed he had a Citadel ring on his hand. While talking with him, I found out that he graduated the same year as my brother (1987) and knows him! What a small world. I hope we can save his soldier's life, but it is doubtful. He told me that he has already lost six soldiers and doesn't want another lost. He showed me his six soldiers' dog tags (identification tags) that he carries with him at all times. Many people are sacrificing much for the freedom of others—the struggle goes on.

Tiger. Adjacent to our CSH was an extensive prosthetic center, which was started by one of our visionary senior enlisted soldiers, Staff Sergeant Cummings. The facility was so impressive that the Iraqi minister of health and the Iraqi surgeon general requested a tour of the facility. I met these dignitaries at our facility and Staff Sergeant Cummings provided a tour for us. On that particular day, he was making a new prosthetic leg for a 14-year-old boy named Tiger, who had lost his right leg above the knee just 4 months earlier. Tiger was present that day, along with his grandmother, and he was excited to see the progress on his prosthetic leg and eager to tell both the minister of health and the Iraqi surgeon general all about his plans when he received his new leg. They were so impressed by our soldiers, their skills, professionalism, and our facilities that they asked to speak with me further about the potential for training Iraqi physicians in our CSH.

Twelve Improvised Explosive Devices. I wrote the following accounts in my journal:

> Twelve IEDs exploded today, and multiple casualties were seen. I met two soldiers tonight. They were both in the same Humvee when a VBIED exploded right next to them. They have flash burns to their face, and their tactical commander was injured by shrapnel—causing a partial traumatic amputation to his right foot, which I completed earlier today. These soldiers were exhausted, but eager to tell me their story. One soldier is from outside Austin, Texas, and the other is from north-central Washington (Omak). One has a fiancée in Canada and the other has a 17-year-old son and a 10-year-old daughter. One soldier, who was a first sergeant stationed at Fort Drum, New York, had been in an IED blast just 2 days prior, and it ruptured his ear drum. He says he needs a break for now. I agree.

The next day:

> I saw both soldiers air-evacuated out tonight. They were both looking pretty good. They will physically do fine. One soldier called his wife again and she was better. She had a hard time after he called last night and she found out he had been hit by another VBIED. They are certainly brave men. I went to the palace (Saddam Hussein's main palace in the IZ) for more MASCAL planning today; I hope we don't need it.

And the next day:

> Today was difficult. Many US soldiers were seen in the ER with head injuries. We were unable to save three of them; all died of wounds in our ER. We have been told that the suicide VBIEDs are foreigners who are brought in and taken to protected locations. Then they are indoctrinated further, given drugs, and then handcuffed to the steering wheel of the car. They have no choice but to blow themselves up. Often one VBIED will be detonated, and when the crowd gathers to care for the wounded, the second one goes off nearby. It's a diabolical strategy.

However, some good news 2 days later . . .

> I have good news from the last 24 hours as well. We were able to save both legs of a marine, hit by an IED, with bilateral vascular injuries. We restored pulses to both feet after many hours of vascular surgery! Praise God for that.

Reflecting on all that had happened during the preceding weeks, I wrote the following entry on 20 September:

> I am sure the families of those that have died yesterday (and other days) do not understand how He could let death come to those He loves. I pray that the families will believe and will see, despite their lack of understanding. I also pray that I will continue to believe and see because I certainly do not understand.

High Value Detainee No. 1. The CSH was frequently the site of clinical care for all sorts of dignitaries, from general officers (in both the US and Iraqi Armies) to politicians. Both the Iraqi prime minister and surgeon general received care from our physicians and nurses, as well as notorious individuals who were in prison near the airport. One day, we received an urgent call about the arrival of a specific prisoner who needed an evaluation, and it turned out to be High Value Detainee No. 1 (the "Ace of Spades" in

the famous card deck), Saddam Hussein. As he entered the ED, escorted by MPs, he removed his hood; it was clear he wanted to be recognized. He was taken to a private room so I could medically evaluate him. I looked directly into his eyes as he stared back at me . . . like he was trying to make sure to remember my name and face. He had no particular expression; he just stared and concentrated. I looked back at him, with no particular fear, but with a sense of confidence knowing that he had no ability to control the situation, and that we were in control of him—if only just for a short time. He stated that this was his hospital; however, I informed him that this was our hospital now and we were in charge of when he would be released. We learned that he was attempting to use this opportunity to escape—with a potential attack on the IZ and hospital, so we ensured he was ready for discharge as quickly as possible. Our staff cared for him with professionalism and superb clinical expertise until he was returned to his cell by the MP unit responsible for his security. Managing individuals like Saddam Hussein, and the entourage that accompanied them, was just one of the leadership challenges that my position provided me with.

Iraqi Constitutional Referendum and Saddam Hussein's Trial. Prior to the election and trial, substantial preparation was underway by the 44th MEDCOM and the 86th CSH for a potential increase in violence. We heard much in our intelligence briefings about insurgents planning to stage a mortar attack on the courthouse where Saddam's trial would occur, in an attempt to cause chaos and free him. The alleged plan would include an attack on the IZ, as the insurgents stated that all Iraqis who work in the IZ are traitors. In the meantime, the Air Force Theater Hospital in Balad admitted a former Hussein loyalist-insider with serious eye injuries due to an IED blast. He had been informing on and identifying enemy combatants, but now was at risk of losing his sight if he didn't have corneal transplants. We arranged for two corneas to be flown in and sent to our ophthalmologic surgeon in Balad to perform the transplants. What an amazing capability to have in such an austere place!

On 15 October 2005, Iraq held their constitutional referendum. The referendum was successful, and the Iraqi people voted in favor of the constitution. We had very few casualties and all was quiet in the IZ that day. The conflicts did not cease, however, and just about 10 days later, three very large explosions occurred across the river (in the red zone) between the Sheraton and Palestine Hotels.

White Phosphorous Improvised Explosive Device. During my final week of deployment, we saw our first casualty injured by an IED with white phosphorous munitions. The patient, an Iraqi civilian, had 70% full thickness burns and a large wound on his thigh that, when exposed to oxygen, was "igniting" and producing white clouds of phosphorous pentoxide gas and burning him. The only way to keep the phosphorous from igniting was to keep the wound covered or submerged under water. We attempted to operate on this portion of his thigh under water to remove the phosphorous and control the bleeding. Unfortunately, we were unable to control the bleeding or burning phosphorous and the primary

surgeon asked for my advice on management. I recommended we make him expectant as there was no hope that we could save him due to the extent of his wounds and the continuously burning phosphorous.

Contributions to Surgical Textbook. I am extraordinarily proud of our TF 86 surgeons who dedicated their time, effort, and writing abilities by contributing to the most up-to-date war surgery textbook published, *War Surgery in Afghanistan and Iraq: A Series of Cases, 2003-2007*. This text, published in 2008 by the Borden Institute, describes 83 surgical cases in detail, and includes extensive photographs and narratives focusing on state-of-the-art care recommendations for blast and penetrating trauma. Nearly 30% of the 53 original case contributing authors were members of our TF with these individuals writing almost half of the 83 described cases. This text was one of only three books nationally recognized for excellence by the American Medical Writers Association in 2009.

Last Night in Baghdad. On my last night in Baghdad, we lost a 20-year-old soldier to an IED blast. He arrived with a head injury (not severe enough to be fatal) and a traumatic amputation of his left arm above the elbow. Despite a tourniquet, he acutely lost blood pressure and an emergent laparotomy was performed, revealing no injury or bleeding. He then lost vital signs and we performed a thoracotomy where we noted a large, flaccid heart, unable to generate any significant blood pressure. Cardiac massage was initiated, but despite aggressive resuscitation, he did not survive. Unfortunately, he appeared to have a dilated cardiomyopathy, and when his volume was rapidly increased, his heart could not sustain a blood pressure. We called the chaplain and the soldier expired on the table. We speculated that he probably had a preexisting, undiagnosed cardiomyopathy. That was not a good night.

Casualty Survival. During my 6-month deployment, I assisted with more than 40 surgical cases, including damage control laparotomies, emergency thoracostomies, thoracostomy tube placements, craniotomies, amputations, fasciotomies, wound debridement and washouts, and cared for several pregnant civilian patients. *It was a privilege to operate with such fine professionals and an honor to care for our wounded soldiers. Throughout the 86th CSH's entire deployment, the unit performed more than 5,000 surgical cases, transfused an average of 100 units of blood products each day, and boasted the highest rate of combat casualty survival in history of more than 90%—compared with an 86% survival rate in Vietnam.*[1]

In every instance of combat casualty care, all those injured were cared for with the same standard, including transportation of injured civilians and enemy prisoners of war (EPW) to our hospital landing zone, followed by care in the ER and operating rooms. We often cared for both critically injured soldiers and the enemy combatants who were responsible for setting off the IEDs that caused the horrendous and critical injuries and amputations of our soldiers. *Operating on the US Soldier and the EPW in the same*

operating room, where the US Soldier dies of wounds and the EPW survives and recovers in the intensive care unit is a conflict not easily dealt with by anyone. The internal conflicts, dilemmas, and anger created by this scenario, and the moral courage required to overcome those thoughts and provide the same level and intensity of care for all injured in this circumstance was enormous—often requiring significant encouragement from colleagues and leadership who provided reassurance in that caring for all these individuals equally is, in fact, the right thing to do.

People around the world are often amazed that we have the same standard of care for all casualties, regardless of whether they are an ally or enemy. In fact, this standard extended beyond physical care to spiritual care. Our chaplains ministered to the needs of every casualty, whether the person was a US soldier, part of the Iraqi Security Force, a civilian, or an enemy. They provided comfort to thousands of injured men, women, and children as we performed thousands of operations. Despite these enormous tasks, the staff never once demonstrated compassion fatigue or evidence of becoming insensitive and complacent with the difficulties, challenges, and needs of others.

It is people performing acts such as those previously mentioned for which our US Armed Forces provide awards, promotions, and special days of remembrance; they are tokens of our appreciation for their service and sacrifice. But just as important, the stories of their acts of care and compassion in the midst of extreme violence continue to be told around the world.

Thankfulness. I returned to the United States on Veterans Day and landed at Fort Campbell, Kentucky. The entire post seemed to be at our reception. The feeling of pride and a job very well done by our CSH was overwhelming and one that I will never forget. However, even more meaningful was my return home to Washington, where my family met me at the airport. We had just enough time to drive to my daughter's high school swim team banquet, where I was greeted with a standing ovation by the entire team and their parents. I was grateful for their reception and was immensely honored to have been a member of the 86th CSH team at that time in history, and also to be in the service of the best military in the world.

I am thankful for safely returning home, and I prayed for the safe return of all our service members. However, it is clear that there are (and always will be) forces in the world who wish to completely control the thoughts and actions of others and kill those who do not comply. *We remain only one generation away from the loss of our freedoms should there be no one ready, willing, and able to risk their lives to defend it.*

Deployed During Operation New Dawn: April to October 2011—World Cultures.

My second deployment to Iraq (Figure 5.10) would begin with dropping my youngest son off at high school on the very day that he would be giving a presentation on world cultures—ironically on Iraq. What a great way for him to better know the area of the world I was heading back to. (I later learned that he received an A on his presentation.) Before I departed for the Combat Readiness Center (CRC) at Fort Benning, Georgia, I left greeting cards for my family and hid presents and a card for my wife for Mother's Day, which was exactly one month away.

[Figure 5.10] *Colonel Peter Nielsen, MD, deputy commander for clinical services for the 86th Combat Support Hospital at Sather Air Base in Baghdad, Iraq, 2011. Photograph courtesy of Colonel Peter Nielsen, MD.*

I traveled to the CRC with my long-time Army friend and colleague, Colonel Pete Napolitano. It was great to prepare to deploy with him, but we would soon go our separate ways after we arrived in Kuwait. He was going to Afghanistan, and I was going to Iraq.

Sather Air Base. I arrived in Baghdad on April 20, to find that the 86th CSH had been relocated to Sather Air Base (Figures 5.11 and 5.12), the military side of the Baghdad International Airport (BIAP). The last time I was deployed with the 86th CSH, it was in downtown Baghdad, at Ibn Sina, in the IZ. At this time, Ibn Sina was occupied by the Iraqis. The mission of the CSH, in addition to caring for casualties, was to prepare for a transition with the Department of State (DOS) to create the first-ever diplomatic support hospital, DSH, which would provide surgical resuscitative care for DOS employees once the DOD left Iraq by the end of 2011. The CSH was also responsible for medical care of the more than 200 high value detainees at Camp Cropper.

As DCCS of TF 86, I oversaw clinical care at 10 facilities with more than 80 providers around Iraq. It was an impressive scope and breadth of clinical care. By the end of April, we heard about the increasing

[Figure 5.11] *Colonel Nielsen operating at the 86th Combat Support Hospital, Sather Air Base. Photograph courtesy of Colonel Peter Nielsen, MD.*

[Figure 5.12] *Colonel Nielsen at the 86th Combat Support Hospital, Sather Air Base. Photograph courtesy of Colonel Peter Nielsen, MD.*

number of casualties received at both Sather Air Base and (even more so) at Contingency Operating Station (COS) Garry Owen, where a portion of the 912th FST was located. Increasing numbers of casualties were also being received from Contingency Operating Base (COB) Delta, near Camp Shocker. Soldiers from this camp were trying to intercept shipments of extremely powerful rockets that were being smuggled in from Iran.

On May 2, I awoke to hear news that Osama bin Laden had been killed by the US Special Operations Forces. That event, along with the increase in casualties and the efforts to increase kinetic activity against extremist forces, led to an increase in tensions—and required me to travel to the other sites within the TF.

Battlefield Circulation. As I made battlefield circulation by Black Hawk helicopter in early May, I traveled from Sather Air Base to COB Delta where the commander, Colonel Steve Philips, and I met with the superb staff that had recently treated numerous casualties (who unfortunately did not survive). Their morale was low, but our visit provided them with some degree of comfort and reassurance that they all had provided the best possible care for the soldiers—despite the outcome.

Following my visit to COB Delta, I traveled to Tallil Air Base, where another portion of our split-based CSH was located. A CSH had continuously operated in that location for the previous 8 years, as I had visited that location in 2005 when I was last deployed to Iraq. As with our other sites, the team at Tallil was superb.

On May 7, I left from Tallil, stopping at both Garry Owen (for fuel) and Um Qasr (to pick up sailors) before arriving at Basra, which is a port city on the Persian Gulf. A portion of our split-based FST was located there with the 912th FST—which would soon replace the 911th FST in a relief in place and transition of authority (RIP/TOA). Basra was headquarters for the 36th Infantry Division (ID) from the Texas National Guard, commanded by Major General Eddy Spurgin (an Aggie from Texas A&M, class of 1980). In my opinion, Basra and the 36th ID had the best distinguished visitors' quarters anywhere in theater. That is not hard for me to say because I am from Texas and a member of the "Fightin' Texas Aggie Class of '82"—*Gig 'Em!*

During the early morning hours on May 8, COS Garry Owen received significant indirect fire (IDF). In fact, a mortar round exploded just 3 meters from the entrance to the FST while most of the unit was in the adjacent bunker. All who were there received the Combat Action Badge for enemy fire that occurred that night. I spent the next several days at Basra trying to get to Garry Owen and finally made it—to officiate at the RIP/TOA of the 911th with the 912th FST. All the staff, while physically unhurt, were certainly shaken by how close the IDF had come to their FST. Once again, the superb staff in both FSTs

provided outstanding critical care to soldiers in one of the most difficult and remote outposts in Iraq. I left Garry Owen under the cover of darkness and waited "outside the wire," covered by two mine-resistant ambush protected vehicles, or MRAPs, several tanks, and an unmanned aerial vehicle that was flying overhead. All the additional security was implemented as precautionary due to the recent heavy IDF that the COS had received. We waited for about 30 minutes before the C-130 aircraft landed, which had been completely unseen and unheard until about 30 seconds before its landing—it was unbelievable.

It's a Small World. In late May, we found out Comprehensive Health Services (CHS) Incorporated was the contractor who would be taking over clinical care for the DOS after the DOD left Iraq. Ironically, the administrative director was Colonel Casper Jones, USA (Retired). He was the hospital commander for the 86th CSH in 2005, during my last deployment. What a small world! He would arrive at Sather and make our hospital his company's headquarters while they worked with us in setting up the physical infrastructure and staffing for the transition.

Patriot Detail. On 22 May, we received five casualties, two of whom did not survive. The next day, I participated in a "Patriot Detail" for the first time. I had not been stationed at a CSH next to an airfield before, so I had not been able to participate in this very moving and emotional event. My journal entry from that day:

> The two soldiers who were killed in action (KIA) yesterday were transferred to a C-130 in a ceremony involving at least 200 soldiers who lined the way from the morgue to the aircraft, saluting as the American flag draped caskets went by. Then, in two-person teams, each had a chance to enter the plane and salute, kneel or pray, and salute again in front of each casket. It lasted almost 2 hours. It was a very moving experience and incredibly respectful to watch these soldiers. I pray for their families and friends, both here and in the United States, hoping that they find comfort and strength from God—that is the only way.

Early June was a period of significantly increased violence, with many injured due to explosively formed projectiles and improvised rocket-assisted munitions (IRAMs). Those devices were devastating and caused numerous KIA as well as casualties. Six IRAMs destroyed almost 60 contained housing units at FOB Loyalty, resulting in the single largest loss of life in Iraq since 2009. We received five casualties, and Balad received another five. Unfortunately, after the five KIA arrived at our facility another "Patriot Detail" was required.

Rising Casualties. Due to the substantial numbers of casualties we received, and the need to standardize some of our efforts in the operating room, we established guidelines on operating room briefings and debriefings and called it Surgical Team Assessment Training (STAT). This training included

[Figure 5.13] *Surgical team assessment training at the 912th Forward Surgical Team, Contingency Operating Station Garry Owen, Iraq. Photograph courtesy of Colonel Peter Nielsen, MD.*

implementing strategies of TeamSTEPPS® (Team Strategies and Tools to Enhance Performance and Patient Safety) in the operating room environment and evaluating its use over time at our Sather Air Base location.

Late June continued to be violent and resulted in many KIA and casualties—including the attack on Combat Outpost (COP) Shocker. On 29 June, I recorded this in my journal:

> Tonight, we received notice of IDF that hit COP Shocker, which is located on the Iranian border. The nearest surgical care is at COB Delta where we have a surgical team. A total of nine patients were taken there after the incident. One died of wounds and the other eight were initially treated at COB Delta—

[Figure 5.14] *Surgical team assessment training at the 912th Forward Surgical Team in Basra, Iraq. Photograph courtesy of Colonel Peter Nielsen, MD.*

and the four most seriously injured were sent to us. We were operating on them for many hours (until 0400). All survived. The four remaining at COB Delta also survived. A total of three were KIA and 16 wounded in action from this apparent attack on the Command Post for this 2/3 Cavalry unit.

Surgical Team Assessment Training. Between July 18 and August 1, our team of four (Lieutenant Colonel Kellicut, Major Williamson, Specialist Manson, and I) traveled throughout the TF, covering Tallil, Garry Owen, Basra, Echo, and Delta to present our STAT program, which used simulation and clinical scenarios based on cases from Sather (Figures 5.13 and 5.14). This course ensured that all our teams were provided with standardized training to help improve communication and teamwork among surgical team members. We had already seen improvements in the performance of our surgical team at Sather using

STAT, so exporting it to the TF was the next step. Our commander, Colonel Steve Philips, enthusiastically supported our effort, and we could not have provided this training without his support. Navy Captain Eric Kuncir (joint theater trauma director) took my role on the training team and covered Al Asad, Tikrit, and Mosul over the next several days so that the entire country was fully exposed to this training effort. In total, we covered eight surgical team sites and trained 220 personnel.

The results of this simulation-based team training activity were subsequently published in *The American Journal of Surgery*, and our results demonstrated that participants were significantly more likely to rate this training as very helpful after taking the training, compared with their opinion before participation (53% vs 37%, $P < .05$).[2] In fact, 77% felt that it would improve overall patient outcomes, 78% said it would likely contribute to saving lives in combat, and 98% felt it should be provided to military emergency medicine and surgical residents. *It was clear from this study that STAT could be successfully implemented in austere, hostile environments and improve trauma team functions by incorporating simulation training models and TeamSTEPPS concepts.*

10th Anniversary of 9/11. Early on a Sunday morning, I participated in the Sather Air Base 2-mile ruck march honoring the 10th anniversary of the 2001 attacks in New York, Pennsylvania, and Washington, DC. More than 100 soldiers, airmen, and civilians wore their individual body armor and took part in the march at sunrise. The tragic event that occurred on 11 September 2001 started the longest continuous combat operations for an all-volunteer US military force. The flag (folded during the ceremony) was presented to 321st Air Expeditionary Wing Commander on behalf of the Sather Air Base Honor Guard, and then presented to a fire department in New Jersey—ultimately to be passed on to the surviving members of 9/11 (Figures 5.15 to 5.17). That night, we received three patients in our emergency department: two civilian contractors and one DOS civilian, who all required surgery. We operated all night, and then I performed a physical on an Iraqi general officer to ensure he was fit to perform his next position in the government. His political enemies accused him of being too frail for the position, so this physical was meant to document that he was healthy enough for this job.

Medical Team Transition with the Diplomatic Support Hospital. After more than 10 years of experience with combat casualty care in both Iraq and Afghanistan, US military medical teams consistently demonstrated survival outcomes of severely wounded soldiers that exceeded 97%, the highest in recorded history. With this expertise, coupled with continuing higher-than-expected levels of sectarian violence, and involving the United States' largest embassy staff in the world, the DOS faced the possibility that their personnel might require immediate resuscitative surgical care and subsequent evacuation from Iraq. Therefore, the first DSH system in history was created to provide resuscitative surgical care and evacuation of injured personnel. This first-ever transition required the collaboration between our task

[Figures 5.15 to 5.17] *9/11 Memorial service at Sather Air Base. Photographs courtesy of Colonel Peter Nielsen, MD.*

force, higher headquarters, the health care provider contractor (CHS), and the DOS. The transition had two purposes:

1. Optimize and maintain the highest levels of patient care outcomes during this period of unprecedented transition.
2. Transfer extensive institutional knowledge of resuscitative combat casualty care from the CSH to the DSH, therefore minimizing real-time learning at the expense of patient outcomes.

The State Department hired CHS to provide administrative and medical personnel to staff the DSH, and the DOD provided the physical facilities, required equipment, and training. Planning for this transition began in June 2011, with an initial site visit by CHS. Four DSH and 10 health units (clinics) were planned around the country. The DSH sites included Baghdad, Kirkuk, Tikrit, and Basra—and each would provide inpatient care, critical care, recovery, subsequent medical evacuation, and resuscitative surgical capabilities. Full mission capability for each site was expected no later than 31 December 2011.

The DSH configuration would mimic a split-based FST, which permitted modeling after these units with respect to structure and processes. However, this structure also included many limitations, including blood products (less than 15 units), potentially limited trauma experience of the medical team members, and limited capability for both evacuation and medical interventions during evacuation. Those concerns were mitigated by implementing the following strategies:

- Standardizing the layout of trauma flow for MASCAL events.
- Adhering to the principles of combat care triage.
- Optimizing deployment of provider assets.
- Judiciously utilizing limited resources.
- Timely coordinating for patient evacuation.
- Implementing the STAT program for the DSH staff (which formed the basis of the training, knowledge transfer, and interagency collaboration).
- Identifying the Golden OR Patient.

Modification of scenarios and medical and surgical implementation strategies within STAT was necessary due to the definition of the Golden OR Patient. We defined the Golden OR Patient as one with survivable injuries, but who could not survive a 60-minute evacuation to a higher level of care without immediate surgery. The Golden OR Patient may have one or more of these conditions:

- Hemothorax with persistent bleeding after chest tube placement.
- Retroperitoneal bleeding.
- Splenic laceration.
- Abdominal bleeding refractory to fluid resuscitation.
- Epidural bleeding with clinical signs of herniation.

Specific clinical recommendations for these patients included rapid movement to the OR, performance of damage control surgery to stop bleeding, and fluid and blood product resuscitation for correction of hypothermia and acidosis—while simultaneously preparing for evacuation.

In addition, we highlighted and included common triage pitfalls into the scenarios with an emphasis on the use of clinical practice guidelines developed using data from the Joint Theater Trauma Registry. Common triage pitfalls include:

- Movement to the OR without a complete evaluation.
- Delayed transfusion in a patient with unstable vital signs and a known source of bleeding after crystalloid resuscitation.
- Failure to assess for and anticipate delayed and/or secondary injuries.
- Calling too early for air evacuation and/or no evacuation planning.
- Evacuation of an unstable patient.

In mid-September 2011, we began transitioning with the medical team from CHS, who would provide resuscitative surgical support for the DOS. Due to our previously successful implementation of STAT within TF 86, we used these curriculum modifications to train our CHS colleagues, this time with a new team from the 47th CSH that had completed a RIP/TOA with the 86th CSH. I was the officer in charge for the Sather portion of the 47th CSH and the lead for the medical transition with CHS.
The STAT training team from the 47th CSH included general surgeon Major Anthony Braswell, nurse anesthetist; Lieutenant Colonel Joe Karhan, medic and moulage artist; Specialist Penn, US Air Force aeromedical evacuation specialist; Lieutenant Colonel Bradfield; and me. Our team briefed the planned STAT training curriculum execution to the CHS leadership (Colonel Casper Jones [ret.]) and the 47th CSH Commander (Colonel Scott Avery), who approved the plan; we then began the first-ever transition training with a DSH.

The team first flew to Basra, where a DSH was set up in conjunction with the 47th CSH and 912th FST. Training was critical to the success of the DSH at this location (as well as Sather and Kirkuk), so we had to ensure mission success before all US forces redeployed. Ultimately, STAT was implemented at three of the four DSH sites between August and September 2011. These sites included Baghdad, Basra, and Kirkuk (Figures 5.18 and 5.19). A trauma simulation event was repeated weekly for 7 additional weeks at these three sites. Training also included medical evacuation simulation with the assistance of the 2515th Navy Air Ambulance Detachment, or NAAD (Figure 5.20).

Thirty-one participants completed STAT training and validated safety attitude questionnaires. The introduction of STAT training (and the subsequent weekly trauma simulations) using the teamwork principles of TeamSTEPPS produced improvements in the culture of safety with the DSH staff.

[Figure 5.18, top] *Surgical team assessment training for the diplomatic support hospital at Sather Air Base. Photograph courtesy of Colonel Peter Nielsen, MD.*

[Figure 5.19, bottom] *Surgical team assessment training team for a combat support hospital. Photograph courtesy of Colonel Peter Nielsen, MD.*

[Figure 5.20] *Training Comprehensive Health Services, Inc. with the 2515th Navy Air Ambulance Detachment at Basra. Photograph courtesy of Colonel Peter Nielsen, MD.*

These efforts were the first to quantify the effects of trauma teamwork training in a combat zone using validated safety climate and attitude questionnaires, and they were also the first to include interagency medical training collaboration between the State Department and the DOD in an austere environment. This program also provided a unique opportunity for civilian trauma team members within the DSH to work directly with experienced and skilled DOD surgeons, nurses, and technicians to improve their teamwork skills and perform simulation-based drills involving moulaged patients whose patterns of injuries would closely resemble those the DSH might face once fully mission capable.

The implementation of STAT with the DSH was one of my last missions before leaving theater. The senior DSH surgeon at Sather was Dr Richard A. Pratt, who was a co-inventor of the Jackson-Pratt drain and previously served as an active-duty Navy surgeon when he authored the first paper describing its use.[3] He was a fascinating person and a very professional and skilled surgeon who still continues to serve—but now in a very unique way.

Last Surgical Case and Redeployment. Ironically, my last surgical case in theater (2 days before leaving) was an emergent gynecologic surgical case—a ruptured ectopic pregnancy with a hemoperitoneum. The patient did well and was aero-medically evacuated on the same day that I left the country.

I returned to the United States on October 12. I flew through Kuwait and Hahn (Germany), and then landed in Atlanta on the way to Fort Benning, Georgia. where I had originally departed in April. There was a very nice reception for the returning soldiers at the Atlanta airport—mostly Delta Airlines employees holding flags and cheering and clapping as we walked by. It was very nice and much appreciated. In one of my last journal entries before going home I wrote:

> Things have been very interesting on this deployment. I never imagined some of the things that have happened or that we have been able to do. Great people here have helped to make it happen. That is the thing about the military—great people make the mission happen, despite the hardships, or frankly, the nearly impossible tasks they are sometimes given. The people who raise their hand and volunteer to serve are what make this country great. It was an honor to serve with them on this deployment.

LIFE AFTER DEPLOYMENT

Dr Nielsen returned from a second deployment and transitioned from service as department chair at Madigan Army Medical Center to assistant chief of staff for clinical operations at Western Regional Medical Command, Joint Base Lewis-McChord, Washington. He attended the US Army War College and graduated with a master's degree in strategic studies, after which he was selected for command of General Leonard Wood Army Community Hospital, Fort Leonard Wood, Missouri. While in command, he was the 2015 recipient of the Missouri Hospital Association Visionary Leadership Award for his statewide leadership supporting the Ebola crisis. Following command, he retired as a colonel in 2016 with 29 years of service and was awarded the Distinguished Service Medal. During his career, he had the privilege to train more than 100 gynecologic surgery and obstetrics residents and fellows and lead efforts to evaluate and implement medical team training and collaborative practice nationally. He then spent the next 5 years building and growing the new Department of Obstetrics and Gynecology for Baylor College of Medicine in San Antonio, Texas, serving as the first professor and vice chair as well as the first obstetrician/gynecologist-in-chief at the Children's Hospital of San Antonio. He now serves as professor, Department of Obstetrics and Gynecology, at the University of Texas Health Science Center at San Antonio, Texas. He is passionate about improving medical team performance through simulation-based training and uses his expertise gained from development of team training programs during his military service, including combat deployments, to assist civilian hospitals in reducing maternal morbidity and mortality, including service as an American College of Obstetricians and Gynecologists Levels of Maternal Care inaugural surveyor.

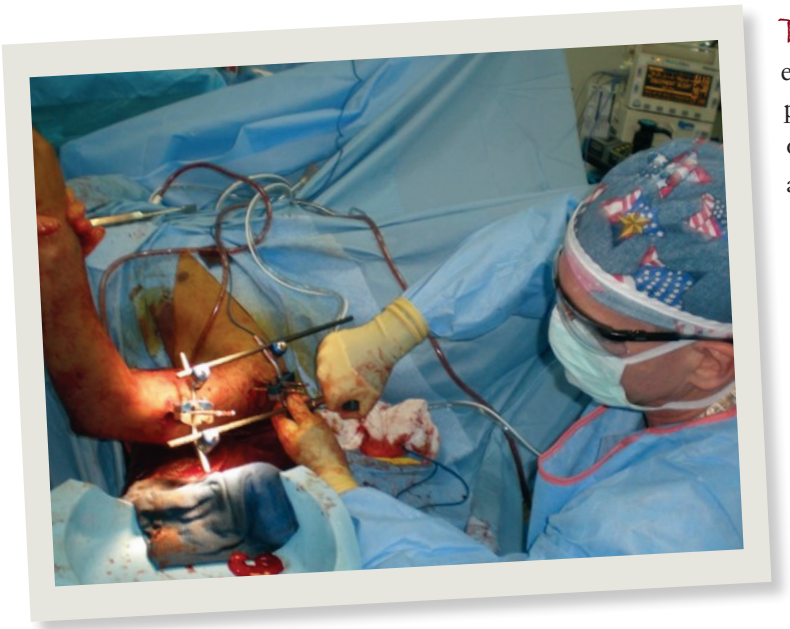
COLONEL PETER G. NAPOLITANO, MD

Colonel Peter G. Naplitano, MD (Figures 5.21 and 5.22), served as gynecologic surgeon, 86th Combat Support Hospital at Ibn Sina Hospital, International Zone in Baghdad, Iraq, during Operation Iraqi Freedom from January to June 2008. He then served as brigade surgeon, 101st Airborne Sustainment Brigade in Bagram Airfield, Afghanistan (Regional Command-East), during Operation Enduring Freedom from April to August 2011.

UNIT AND OPERATIONS

86th Combat Support Hospital

Deployed During Operation Iraqi Freedom: January to June 2008. The 86th CSH was a Role 3 trauma hospital, and arguably the busiest in Iraq during the time I was there. Our primary mission was to manage trauma, and at that point in the war the theater had developed enough that the Black Hawks would over-fly FSTs and come directly from the point of injury to our CSH. We would then resuscitate, stabilize, and operate on the soldiers—and usually within hours, transfer them to the Contingency Aeromedical Staging Facility in Ballad at the 332nd Expeditionary Medical Group hospital, where they would be prepped to travel by critical care air transport to Landstuhl, Germany. In addition, two-thirds of our patients were Iraqi men, women, and children (especially children with burn wounds). We were also a transfer station for severely wounded Iraqis who needed high levels of care; we would stabilize them and then transfer them to Medical City Iraqi Hospital in Baghdad. Due to our proximity in the IZ to the US Embassy and Iraqi Parliament, we often were on call for the VIPs—including senior general officers and the Iraqi president.



[Figure 5.21]
Colonel Peter Napolitano, MD, gynecologic surgeon, operating with the 86th Combat Support Hospital at Ibn Sina in Baghdad, Iraq, 2008. Photograph courtesy of Colonel Peter Napolitano, MD.

The Katyusha Rockets. My experiences at the 86th CSH were phenomenal. I could write extensively on them but I'll try to summarize just a few.

[Figure 5.22] *Colonel Peter Napolitano, MD (center), brigade surgeon, 101st Airborne Sustainment Brigade, Bagram Airfield in Afghanistan, 2011. Photograph courtesy of Peter Napolitano, MD.*

First, I will never forget the postpartum Iraqi woman hemorrhaging after delivering her baby and was brought to us by Black Hawk medevac. While this patient arrived, our hospital was in the midst of one of the largest MASCALs that we had ever experienced, with more than 45 casualties arriving in the ER in less than 1 hour. I had just enough time to: 1) get an interpreter, 2) get the deputy commander for nursing (DCN) to assist with IVs, 3) get medics for blood transfusion, and 4) call for anesthesia. I gave them a 30 second brief of what I wanted and asked the interpreter to assist me with explaining the reason why I needed to examine her. Then the DCN placed the largest IV possible, the medic immediately started transfusing her, and the anesthesiologist put her to sleep. *She came in with a blood pressure of 70/palp with a retained placenta accreta. I convinced the trauma czar that we needed the 4th and last remaining OR bed right then or she would not survive. We took her to the OR, then 25 units of blood later (and after one Katyusha rocket hit the OR's roof above us), we performed a hysterectomy. She survived!* The previously mentioned Katyusha rocket hit the roof of Ibn Sina (right above the OR, in the middle of surgery, with four cases on the table and everyone operating) glanced off the roof and then crashed into the wall just outside the computerized tomography (CT) scanner in the ER. Everyone in the OR received a Combat Action Badge for that event.

TeamSTEPPS® in the Combat Zone. *During my deployment, I started the first-ever effort to teach principles of medical team training (known as TeamSTEPPS®) in a combat zone. Eventually our efforts resulted in over 3,500 medical personnel having been trained in over ten CSH's throughout Iraq. (Subsequently, every deployed CSH from 2008 to 2011 was trained.)*

I recall the very memorable night when a soldier's life was saved as result of our training. One of our critical care physicians especially liked TeamSTEPPS®, so she started having "huddles" with her nurses for every soldier leaving the intensive care unit (ICU) on oxygen (prior to their transfer to Balad). One night, the operational tempo was so intense that soldiers were literally staying in the ICU for one hour after being operated on and before being transferred by helicopter to Balad for their medical evacuation from theater. On that night, a soldier requiring 70% fractional inspired oxygen left the ICU without a huddle. The critical care physician recognized the lack of a huddle and went down to the "bus stop" (the location where the wounded would undergo the final flight check prior to being transported to the waiting aircraft) to find the patient. When she arrived at the "bus stop," the patient was already on the way to the landing zone. This physician, along with the respiratory therapist, found the nurse with the patient waiting to load on the helicopter. She was very concerned that if the soldier went into respiratory arrest, with such a high oxygen requirement, conventional resuscitation in flight would not work. She immediately convened a huddle and asked that a positive end expiratory pressure (PEEP) valve be sent with the patient and nurse. A PEEP valve is simply a spring-loaded valve that the patient exhales against; it works by maintaining the patient's airway pressure above the atmospheric level by exerting pressure that opposes passive emptying of the lung.

During the 30-minute flight, the soldier had a respiratory arrest. Resuscitation was attempted with traditional ventilation, but it was unsuccessful; however, when they used the PEEP valve, the nurse was able to successfully resuscitate the soldier. After returning from Balad, the nurse told this story and we reported it back to the 62nd Medical Brigade. On the same day, the clinical practice guidelines for US Central Command (Iraq and Afghanistan) were changed to ensure that every medevac would carry a PEEP valve.

What I Remember . . .

- I had a very challenging case involving a 35-week pregnant patient who was shot in the back. She had a hole in her diaphragm, was paralyzed, septic with a liver laceration, hyperglycemic due to diabetes, with an intrauterine fetal demise. She required ICU admission for an insulin drip; interventional radiology for liver abscess drainage; exploratory laparotomy, with repeat Cesarean where we diagnosed a placenta accreta requiring a hysterectomy; followed by liver exploration and diaphragm repair. She was very thankful, but sadly kept asking if we could "fix her legs".
- I cared for a prominent judge's wife who presented with a ruptured ectopic pregnancy and had lost 2 liters of blood prior to going to the operating room. She survived and kept saying, "Allah be with you" to me.
- I experienced over 1,000 documented IDF, mortar, and rocket attacks in 3 months.
- Multiple mortar attacks occurred when Condoleezza Rice (then Secretary of State in the Bush Administration) visited the Iraqi Parliament. A friend and I were in the post office at the palace mailing a package, and we kept wondering why there weren't any vendors outside the Post Exchange. On our return to the CSH, we were stopped while Ms. Rice went by in a Rhino heavy-armored vehicle, followed by an entourage 10 black Chevy Suburbans that were transporting men in black suits and ties.
- We were on lockdown for 2 weeks. No one went outside unless it was essential because of the frequency of mortar attacks that we were experiencing. We exercised anywhere inside the hospital (the library, the stairwells, the hallways) to keep from going crazy. One night, we were mortared every hour on the hour for 24 hours—precisely what an army would do before an invasion. I remember not being able to sleep. The next day the command reviewed the rules of engagement with everyone. *You know it's getting bad when the command instructs doctors and nurses on when they can pull out their weapon and engage the enemy!*
- For 18 days straight, helicopters delivered patients nonstop for 24 hours a day—recording the greatest number of surgeon hours in a 24-hour period (more than 60 hours, defined as the total number of hours all surgeons are actually in the room operating during the 24-hour period).
- *We worked on resuscitating a soldier for 2 hours in the ER*. We constantly had to keep resuscitating him, and at one point over 100 people were involved with his care—with a long line of volunteers performing chest compressions, to include the DCCS of the hospital. Finally, after 2 hours he was

stable enough to be transferred to the OR. However, once we started surgery, he decompensated faster than we could resuscitate him, and he died . . . we all cried.

- I remember an Angel Flight at 0200 hours one morning. Every available person from the hospital lined the road from the morgue to the landing zone as the soldiers were taken to helicopters to be flown home for the last time. We all stood in silence and saluted their remains . . . crying. The Black Hawk helicopters were loud and would blow sand in your face, then they would fly off, and everyone would walk away in silence. I'll never forget those events.
- We cared for a soldier who had burns on over 90% of his body. We operated on him (doing fasciotomies) to try to keep him alive, but in the end it was just too much for his body to handle.
- My first amputation was traumatic, but eventually (and sadly) they were very common. I remember salvaging a vein off a soldier's leg (that he lost during battle) to attach as a graft for his arm where his brachial artery used to be. I performed so many cases like that with the vascular surgeon that I learned to do them myself (with observation).
- I watched a soldier (who had one leg attached only by his skin) being moved from the stretcher. He had been administered morphine, and obviously didn't know about his leg; when they lifted him to move him, his leg detached and remained on the stretcher. He saw his leg and started screaming. He was quickly fully sedated, but I will never forget the horrified look on his face.
- I remember my first day in the trauma bay: I was handed a severed leg (with the soldier's boot still on his foot), and was told to put the leg in the *red bag*; everything in the red bags all went to the same place—the incinerator. I couldn't believe it and thought, "This is a guy's leg; shouldn't we be doing something more respectful with it?"
- One of my cases included a soldier who was shot in the chest, which wounded his ventricle. We had him prepped and in the operating room in 12 minutes, and he survived surgery. The next day we extubated him, thinking he would have major brain damage, but then he said, "Hey, where am I?" *It was a miracle.*
- I flew to Balad on a Black Hawk for the OIF Theater Trauma Conference and met the Air Force Trauma Czar and Joint Theater Trauma Service Theater Director. My return flight on a Black Hawk was aborted and quickly landed shortly after taking off due to a mortar attack—which was averted by the gunner's request to abort the flight seconds prior to being impacted by a mortar.
- I flew to Mosul to teach TeamSTEPPS for a week.
- I experienced a combat landing in a C-17 at BIAP.
- I rode in a Rhino down Route Irish for the first time at 0200 one morning. *Route Irish was the route with the distinction of having the most IEDs of the war.*
- I went to the embassy in Saddam Hussein's palace and ate a panini sandwich in the quiet marble library.

- We had a time when we saw trauma cases nonstop for days on end, and just prior to Mass on Saturday, we suddenly had a lull with zero cases—which then picked up immediately after Mass ended!
- We grafted a piece of a boy's pelvic bone to his forearm and surgically implanted the arm in his belly to heal.
- Saddam Hussein's cousin, Ali Hassan al-Majid, also known as "Chemical Ali," went on a hunger strike (while having diabetes) and suffered from a heart attack; he was kept in the ICU.
- We transfused 150 units of blood to a suspected insurgent, then re-operated on him in the ICU—but ultimately lost him.
- I managed my first trauma case alone: from evaluation, a CT scan, and then to the OR for exploratory laparotomy.
- I remember all the burn surgeries I performed with Lieutenant Colonel Booker King, trauma/burn surgeon from the Institute for Surgical Research (ISR) in San Antonio, Texas.
- The Dustoff Dining Facility had food that tasted like cardboard, but we were so hungry that we put food on our tray, then when we tried to eat it, we'd put it right back on the tray. We lived off sandwiches and Baskin-Robbins ice cream. I remember when the dining facility ran out of the yellow lettuce they would put canned peaches where the lettuce would be with all the other salad fixings . . . as if we could interchange peaches for lettuce.
- I remember all the foreign nationals who got appendicitis (Kenyans, Bolivians, Peruvians, etc). I almost died while getting Colonel Rich Stack's coffee: We were being pummeled with significant IDF the entire time I was trying to get a 6-shot latte at the Green Bean coffee shop in the Gulf Region District complex.
- I just finished doing CrossFit outside with the surgeons, and a mortar landed in the motor pool area right where we all were standing a few minutes prior. Then I was in a bunker in my physical training shorts thinking about how vulnerable I was.
- I was in a "duck-and-cover" bunker in 110 °F heat—and I had to leave despite the danger because it was just too hot.
- I remember the strikingly red sky during the horrible sandstorms that brought everything to a halt.
- From the roof of Ibn Sina, I watched as Baghdad-Sadr City was being attacked by "Hellfire" missiles. Then when the counter rocket, artillery, and mortar, or CRAM, system went off, I ran back inside.
- I remember the surroundings around Mosul CSH: the Green mosque of Mosul, the Monastery of St. Elijah with the Crusader's cross on the entry and the church inside with the altar that pointed north, not east.

- On my last night, I said my goodbyes and was dropped off at the Rhino Station, just like I had been several times before for my temporary duty around Iraq. It was the same drill: check in, wait until some random time, load up on a huge combat cargo truck with everyone's gear, then wait until another random time when an NCO would come rushing in, saying, "Grab your gear and move it out! Lock and load! We're moving out!" We pulled out in the convoy, but that time the new MRAP was leading the convoy down Hyphae Street around 0100 hours instead of a Humvee. I was in the lead Rhino behind it. We went past Ibn Sina, then to checkpoint 1, then into the streets of Baghdad, and back on Route Irish. I was sitting in the front passenger seat of the lead Rhino, which was something I always chose to do. *I wanted to see what was coming.*
- I remember leaving BIAP in a crowded C-130. The O6s (officers) were not given a seating preference, so I was stuffed in like a sardine with everyone else, and the temperature had to be about 120 °F. I felt horribly claustrophobic for the hour-plus ride to Ali Al Salem Air Base outside of Kuwait City. When we landed, the plane was buffeted by 30 to 40 mph winds (we were caught in a sandstorm). Our aircraft was the last plane to land for the next 2 days because of the storm. *I remember still being on edge, feeling like "they" could still kill me.* I also remember leaving the ground on the "Freedom Flight" from Kuwait City; the entire plane cheered because we were so happy. We all just felt a bit safer. Then we landed in Leipzig, Germany, at 0200 hours, and it was like another world. Next I remember landing at Fort Dix, New Jersey, early on a Sunday morning, because when I looked outside I saw that everything was green, unlike Iraq. After that we flew to Fort Benning, Georgia, and unloaded in Freedom Hall (where families were waiting . . . for some). We then turned in our gear at the central issue facility, and were whisked back to the CRC. I worked out in the gym then went to the PX. I was so excited when I bought a beer, as it had been almost 5 months since I had one. I remember opening it, sipping it, and sitting down on my bed. The next thing I knew, it was hours later. I had fallen asleep and the can of beer was still full—and warm.

101st Airborne Sustainment Brigade

Deployed During Operation Enduring Freedom: April to August 2011. The mission of the 101st Airborne Sustainment Brigade (SBDE) was to provide logistical support by resupplying FOBs throughout Afghanistan—especially Regional Command-East (RC-E). As the brigade surgeon, I had a primary aid station (Role 1) located on Bagram Airfield (BAF). The Headquarters and Headquarters Company, 101st SBDE aid station had 25 to 30 Combat Medics, and my job was to train them for Role 1 care and prepare them for field trauma management while on convoys. The supply convoys, especially after Osama bin Laden was captured and killed, were increasingly attacked—initially once every other week in April. Subsequently, the same convoy would be hit three or four times in one mission (primarily with roadside IEDs detonated with long trip wires 600 meters away, and then followed by RPGs—some of which had armor-piercing rounds). The aid station's mission also included developing

and implementing a base-wide MASCAL plan. With roughly 20,000 people on the airfield, that was a daunting task. Unfortunately, it was activated during my stay there. My duties also included being the decedent affairs officer for BAF, which meant that any soldiers (including the US military, NATO forces, the ANA, DOD employees, or civilian contractors) who were killed in RC-E would be sent to the BAF morgue. I would examine them, confirm the death, and complete their preliminary death certificate before their remains were released to the host country or sent to Dover on an Angel Flight for a definitive autopsy.

What I Remember…

- My experiences with the 101st SBDE were different from those I had with the 86th CSH, as they were less dramatic, but sometimes much more intense. The day I arrived, six members of the 101st SBDE were killed at FOB Gamberi by a suicide bomber who had been with the ANA for only 1 month, but was obviously a sleeper. I remember the memorial ceremony that was held for them in the infamous Bagram Clam Shell where both General Petraeus and Speaker Boehner were present; it was very sad and a big blow to our unit's morale.
- Bagram (the old city ruins) is located on the old trade routes to China, sits at 5,000 feet elevation, and is surrounded almost on all sides by huge mountains (at the base of the Hindu Kush mountain range that peaks at 22,000 feet). Bagram dates back to 500 BC, was once a part of the Hellenistic empire, and was rebuilt after being conquered by Alexander the Great. The snow in the mountains in April made the place look majestic and very beautiful—but it was also very deadly.
- Colonel Agee's promotion ceremony was held at the Russian Airport Tower in Bagram. The Russians were in Afghanistan from 1989 to 1999, and their airport tower still remained. It was interesting to go inside and tour it (but you could do that only if you knew the right Air Force people).
- Tomatoes and cucumbers were the only fresh vegetables we had, and we ate them with every lunch and dinner.
- Unlike Iraq, Bagram had very few protective T-Walls (or Bremer walls, which are steel-reinforced concrete walls). We lived, worked, and ate in tents or small wood buildings called "B-Huts," or barracks huts.
- There was a rocket attack on the re-locatable building (RLB) located just 40 meters from the aid station. That was the first time I could actually hear a rocket whistle BEFORE it impacted, which was followed by the horrendous sound of shrapnel that pierced through buildings like butter. I was a first responder, along with two of our medics and NCO chief, for a patient who was blown out of his RLB from the rocket attack and suffered from a popliteal artery laceration. (The patient did survive, and was ironically due to go home the very next day after this incident.) I managed his care with our combat medics in the aid station, in addition to numerous other traumatic brain injury patients.
- Our medics went out on convoy and, at times, really suffered. Specialist Bill Lipscomb broke several ribs when his M1224 MaxxPro MRAP flipped end on end numerous times. Airman First Class

Bryenna Brooks' MRAP was hit by an RPG with an armor-piercing round. It came through the hatch, through the seat next to her, through her aid bag, and then out the door; one side of her body was covered in shrapnel and she was bleeding. Even though she was injured and the cabin was filled smoke, she started helping the others inside the vehicle until she was physically pulled from the vehicle. *That is the definition of a true Combat Medic and American Hero*. Private First Class Gary Lim attended to an IED incident that also occurred on this convoy, and he brought a wounded soldier into his MRAP. The convoy then decided to move on. Fifteen minutes after getting underway, his MRAP hit a huge IED; it was so big that it ripped the rear axle off the MRAP, tossed the vehicle around like a rag doll, and blew the doors off. The driver, tactical commander, and gunner were all killed (I saw them in the morgue), the patient from the earlier IED was hurt again, and Private First Class Lim sustained injuries requiring quick mobilization. He went through Landstuhl Regional Medical Center (LRMC) to Eisenhower Medical Center at Fort Gordon within 48 hours—and he did well. *I feared that one of them would not make it if they were scheduled to redeploy, as Route #1, the main supply route going southwest, was being attacked nonstop—probably because it was just before Ramadan at that time.*

- I remember morgue duties. My colleague, Captain Brandon Ritz, and I (a newly graduated ED physician) alternated duties at the BAF morgue one week at a time. Every person (US military members, NATO personnel, foreign nationals, or contractors) who was KIA or who did not die under the care of a physician required a physician to review the remains and declare them as deceased. I never had much information on these individuals, but I would sometimes review their Officer Record Brief or Enlisted Record Brief. Most were very young and married with children. The cause of death was always "polytrauma—pending autopsy," which was performed at Dover Air Force Base. When we were called, we did not have much time to get to the morgue because the remains were processed very quickly (so they could be put on an Angel Flight home). One especially difficult call was for eight military advisors and one civilian who were training Afghan aviators in Kabul. They were ambushed and each one was horribly executed with one bullet to the back of their head by a disgruntled ANA Colonel (a pilot), who, according to *The Stars and Stripes*, apparently had "financial issues." Some soldier's remains arrived in baggies, and those were tough. *There are many others that I cannot write about here, but I will never forget them.*
- When the IDF attacks occurred, we ran to the aid station (instead of hunkering down), then swept the B-huts in the night, looking for any wounded soldiers; that was scary.
- I remember teaching TeamSTEPPS at Craig Joint Theater Hospital, which had two complete units of intensive care nurses, medics, and physicians (totaling more than 80 people), and establishing trainers and training programs that would continue after I left theater.
- I introduced the TeamSTEPPS-based Ryder Army Trauma Resuscitation Medical Teamwork Course, which would be used to train all incoming FSTs rotating at the Craig Joint Theater hospital prior to

RIP/TOA with their units in the field. This course would give them a tool that would help their team perform monthly battle drills when trauma was slow.

- *I established simulation drills specific for Role 1 military training facilities using TeamSTEPPS, which was first completed with the 101st SBDE medics, but spread to other Role 1s in Kandahar via Kandahar Medical Conference; this included providers who traveled to Bagram to learn how to become instructors.*
- I remember meeting Admiral Mullen (then Chairman of the Joint Chiefs of Staff) and sitting next to him at Catholic Mass on Sunday, 17 July 2011. I had just read an article about him visiting China the week prior to provide a détente-like talk to de-escalate the tension between the Chinese and US militaries.
- The DFACs in Bagram: the Dragon, an Air Force DFAC; North DFAC; the Southside Barbecue DFAC; the 101st SBDE's DFAC "Koele" outside the PX; and "Aviation," the only DFAC solely run by active duty, which was the smallest, but had the best food (to include burger Tuesday, wing night Saturday, soul food Sunday).
- The sky: each night was different. The colors (purple, red, and orange hues), the sunsets, and the clouds were all incredible.
- I remember the 120 days of wind in Bagram, and traveling back on a C-17 flight, "MOOSE 51Bravo," through Kuwait, while temperatures reached 120 °F daily, winds were 25 to 30 mph (which made me feel like I was living in a convection oven), and the nightly lows were still hot and in the 90s (°F).
- On my last day at Ali Al Salem Air Base, Kuwait, the temperature soared to 130 °F. It was so hot that even the air-conditioners couldn't keep the tents cool. Then 20 hours later, after one stop in Leipzig, Germany, we were getting off the buses at Fort Benning, Georgia's Freedom Hall.

THOUGHTS ON DEPLOYMENT

Because I deployed twice, I knew what to prepare for and what to not worry about. The online mandatory training for CRC could take days to complete, yet if you hadn't completed it by the time you arrived at CRC, you could shortcut the training in a matter of hours. For future deployments, if the training requirements remain the same, gynecologic surgeons assigned to Role 2 or 3 facilities, I think there is value (if they have not previously deployed) in attending the Army's Joint Forces Combat Trauma Management Course in San Antonio, Texas. For those providers going to Role 1 facilities, my recommendation would be to go the Army Tactical Combat Medical Care course, which is also in San Antonio. It teaches combat medic medicine (placing chest tubes, needle thoracostomy, cricothyrotomy endotracheal tube placement, tourniquet, cutdowns), and focuses on trauma triage management as well as primary and secondary assessment. This training would have been very valuable to have in Afghanistan, especially for remote field or battalion aid stations.

In addition, over 50% of Role 1 care is orthopedics. Therefore, I believe it would be time well spent to spend a day or two in neurology (to learn how to evaluate and manage treatments for headaches) and do a rotation in an orthopedic clinic prior to deployment.

I was absolutely blessed to serve with the 86th CSH during one of the busier times in the war, and as a result, I quickly became facile at first assisting for general surgery and other subspecialty surgical care, including orthopedics, cardiothoracic surgery, burn surgery, and vascular surgery. As the sheer number of cases increased, I quickly moved from first assistant to performing significant portions of the case as the primary surgeon. In all, I performed over 80 trauma cases during this deployment. Prior to this deployment, when obstetric cases involved excessive hemorrhage, I had a great deal of apprehension; however, after dealing with the volume of transfusions during my deployment (some cases had an excess of 100 units), the obstetric cases looked simple. As a result, I now approach difficult cases back home by falling back on those deployment experiences—and rarely do I ever get excited or apprehensive. I know that if I use the principles of trauma surgery with rapid blood infusion, there will be few cases that would rival those I saw in theater.

My predeployment training and surgical experience helped me to provide competent first assistant services. The principles of surgery are the same (exposure, hemorrhage control, and restore anatomy), but the instruments differ for various areas of the body. However, the bottom line is that for gynecologic surgeons, we have surgical skills in common with those of our other surgical colleagues. My experience *definitely* made me a better gynecologic surgeon and obstetrician.

A field, battalion, or brigade surgeon's job is essentially that of a 62B (family or general medicine physician), and most patient encounters involved orthopedics—with shoulder, knee, ankle, foot, and elbow injuries. Learning how to assess and manage those injuries, not only in garrison, but also in a deployed environment where resources are limited, makes the job exceedingly tough as we have had very little training in orthopedics. In addition, gynecologic surgeons are somewhat removed from operational medicine while in garrison positions. Because we do not routinely use PULHES (physical capacity/stamina, upper extremities, lower extremities, hearing, ears, eyes, and psychiatric), e-profiles (except routinely for pregnancy), or use the MEDPROS, we are not well equipped to deal with these when deployed. In addition, a great deal of cases included headache evaluation and management, which we have more experience with, but still limited.

When it comes to women's health care, of course we excel. In Iraq at the CSH, I had a fairly busy gynecology clinic that provided a broad spectrum of care; we even treated Iraqi women who were injured and pregnant. The only technology we lacked in Baghdad in 2008 were laparoscopy (that was later resolved) and the inability to read Papanicolaou tests (Pap) locally, as they were sent to LRMC. However, we did have a pathologist with us, so we had the ability for full surgical-specimen review for dysplasia and endometrial biopsies.

Often, gravid, term Iraqi women would remain inside the Green Zone after the curfew so that we could evaluate them while in labor. Unfortunately, we didn't have any fetal monitors or nurses to watch the pregnant Iraqi women, nor was there any way to guarantee OR availability due to the trauma mission. Therefore, any woman presenting in labor received a Cesarean section for delivery. Except for one baby who was delivered in the emergency medical treatment section, we performed 12 Cesarean deliveries between January and June 2008 at Ibn Sina. In addition, we had several cases of placenta accreta (with two requiring Cesarean-hysterectomies), and one contractor who, after four units of blood transfusion, required an abdominal hysterectomy for a large prolapsing uterine fibroid with a broad-based stalk. In Iraq, at the CSH during the first half of 2008, we performed a lot of gynecology and a good share of obstetric cases: Cesareans, dilation and curettages (D&Cs), ectopic pregnancies, and obstetric trauma cases—which called for performing a pneumonectomy, repairing a liver laceration, and treating a diaphragm injury.

In contrast, we had no contact with Afghani women when I was deployed to Afghanistan. There were only two sites in theater for gynecologic care (Navy NATO Role 3 in Kandahar, attended by a gynecologic surgeon, and the Craig Joint Theater Hospital in Bagram, attended by a gynecologic nurse practitioner). Unfortunately, this facility could not provide procedures such as D&Cs, or laparoscopy, so all these patients were evacuated from theater to LRMC. I served as the Gynecologic Surgery Consultant for theater during both deployments, and I was shocked by how few sites there were that would evaluate women for gynecologic concerns. In OEF, from April to August 2011, there were more than 14 gynecologic surgeons deployed; however, only two were in 60J positions, and one of the two was stationed at the Army's CSH in Camp Dwyer—a US Marine base where there were essentially no women stationed. For the remaining 12 physicians, only two had even the most basic equipment for evaluation of female soldiers (speculums, lights, biopsy equipment, and microscopes). Most of the physicians contacted me saying that even if they wanted to they could not evaluate women, and many had to empirically treat conditions without being able to confirm their diagnoses. This remained a concern with deployed gynecologic surgeons who were filling 62B slots in a theater (OEF) where there were about 25,000 to 30,000 women (including US and NATO soldiers and female contractors).

Gynecologic surgeons have filled almost every medical role in these two theaters of war. The stories, like the wars, vary in both job title and epochs. During the early days of the invasion, physicians lived out of tents, went on convoys, worked for 72 hours straight, and ate MREs. Then FSTs and CSHs were set up, and as the theaters matured further, they had built fixed DFACs and hardened structures for hospitals. Initially, gynecologic surgeons filled primarily 60J or 61J (general surgeon) positions, then in the later years (2009–2011), there were fewer of those positions, so they primarily filled 62B slots at Role 1 facilities.

LIFE AFTER DEPLOYMENT

Dr Napolitano returned to Madigan Army Medical Center following deployment and completed 15 years as program director for the Maternal-Fetal Medicine Fellowship. He retired as a colonel in 2017 after 28 years of active-duty service. He subsequently joined the faculty at the University of Washington as Professor, Obstetrics and Gynecology, and provides care for patients with high-risk pregnancies through outreach clinics across the state of Washington. He also serves as Adjunct Professor in the Division of Healthcare Simulation Science in the Department of Surgery, teaching Emergency Clinical Obstetric and Critical Care Simulation. As a Professor of Gynecologic Surgery and Obstetrics at the Uniformed Services University, he continued to support the AMEDD Center and School (now Medical Center of Excellence), teaching trauma team training in deployed environment for the Joint Forces Combat Trauma Management Course for deploying physicians, nurses, and medics.

COLONEL JEFFREY CLEMONS, MD

Colonel Jeffrey Clemons, MD, was deployed twice in support of Operation Iraqi Freedom. His first deployment was from 2005 to 2006 as a gynecologic surgeon assigned to the 31st Combat Support Hospital in Mosul, Iraq. His second deployment was as a gynecologic surgeon assigned to the 86th Combat Support Hospital at Sather Air Base in Baghdad, Iraq, from February to September 2011.

UNIT AND OPERATIONS

31st Combat Support Hospital

Deployed During Operation Iraqi Freedom From 2005 to 2006. The operational tempo was very high in Mosul from 2005 to 2006. There were many casualties—usually 1 to 3 per day on slow days, and then 10 to 30 on busy days. We also covered basic health care needs for all of the US soldiers and civilian contractors.

86th Combat Support Hospital

Deployed During Operation Iraqi Freedom From February to September 2011. The role of the 86th CSH was to support Baghdad and the outlying FOBs for all medical and surgical needs, including primary surgical treatment for the combat wounded. The 86th CSH (Figure 5.23) was located on a portion of BIAP, which was part of the massive Victory Base Complex (VBC).

Decreasing Combat Activity. The mission in Iraq changed since my last deployment, as the number of deployed personnel declined substantially, beginning in August 2010. However, there were still about 45,000 US troops deployed to Iraq during that time (and probably double the number of civilian contractors). The soldiers who were still in Iraq

[Figure 5.23]
86th Combat Support Hospital, Sather Air Base, Iraq. Photograph courtesy of Jeff Clemons, MD.

provided support services, such as military training for the Iraqi Army and other Iraqi Security Forces, counterterrorism operations (mostly searching for weapons, IEDs, etc), medical care, and various other nation-building and peacekeeping missions. The agreement with the Iraqi government was that all US military would depart Iraq by 31 December 2011. Our plan was to hand over our CSH to the DOS, which would then support the hospital with a small staff of civilian physicians, nurses, and other health care staff.

Because of a substantial decrease in combat activity, there were far fewer US military casualties coming to our CSH for care than we had seen in the past. However, there was always a significant risk of being injured by IEDs or a random mortar shell attack at any time. During my last deployment to Mosul, we typically cared for two to three times as many casualties from the Iraqi Security Forces (Iraqi Army, police, Special Forces, etc) in addition to US military casualties. However, we only occasionally treated Iraqi civilian or military casualties in our hospital. The Iraqi Security Forces were often the targets of attacks, but the Iraqi health care system had improved enough by that time to sufficiently take care of most of their wounded. Our CSH still cared for them when they faced the risk of losing their life, limb, or eyesight.

International Colleagues. Many people from other countries remained in Iraq to assist us as well. In our small section on the vast VBC, we had a DFAC where we would see soldiers from Italy and Uganda, and civilian contractors from Bangladesh. Members of the Italian Carabinieri were there on a peacekeeping mission to help train the Iraqi Police. Members of the Ugandan Army provided security and checked identification cards at every possible checkpoint: entry to the DFAC, the PX, and the living areas. Nearly all cooks and food servers at the DFAC were from Bangladesh. All foreign soldiers and contractors spoke English well.

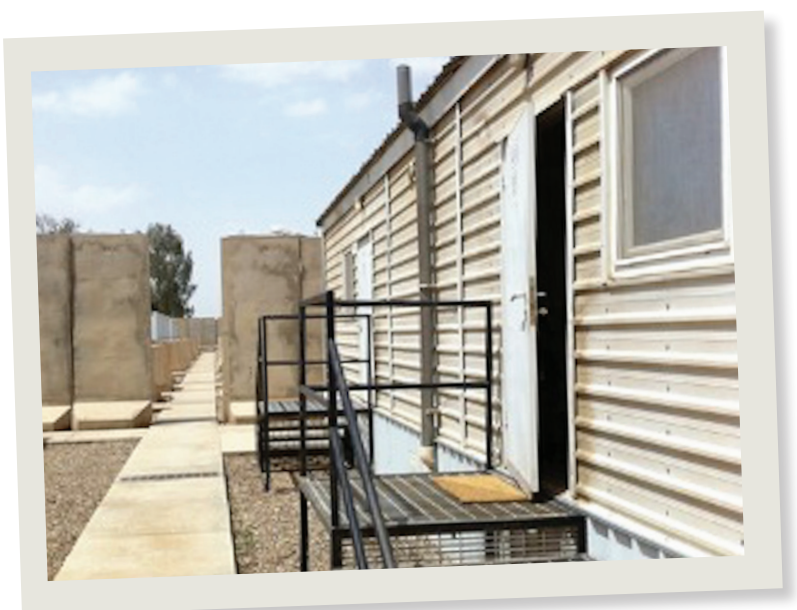
US Forces Hospital-Baghdad. Our hospital was officially known as the US Forces Hospital-Baghdad, Iraq. It was located in the Green Zone from the beginning of the Iraq War until 2009, when it was moved to the VBC. Logistically, it was much better to be located on an airbase than in the middle of the city. Our hospital was only a small speck on the VBC, which surrounded BIAP.

Every 12 months, a new CSH would deploy to replace the currently deployed hospital. For some soldiers, a deployment was for about 6 months instead of 12 to 15 months. The government spent substantial effort in training physicians to be specialists, but the medical care we provided during deployment was limited to mostly emergency care of the young adult, and skills can be lost when they are not regularly used. For example, I would provide basic gynecologic care and assist with trauma care, but wouldn't do anything specifically related to my surgical subspecialty for 6 months due to my deployment.

I saw the occasional trauma victims (mostly Iraqi), and lots of nontrauma health care issues. For me, that meant gynecologic consults for female soldiers, as women represent a significant portion of the military. We had a small hospital that was surrounded by T-walls. They were basically 3.5-meter-tall versions of "Jersey barriers" that can be seen on highways, and they were everywhere, surrounding all the buildings and compounds. Fortunately, they were our protection against injury from fragments when mortars were launched. Sometimes I felt like a rat in a maze, but that was OK, because we needed the safety and security the walls provided.

Living conditions during a deployment can vary quite a bit. At one extreme, you are basically "camping" for 6 months: living in tents, sleeping on cots with a sleeping bag, no (or rarely have) showers or laundry facilities, eating MREs often, and voiding "in the woods" or using portable latrines, if they were even available. With minimal (to no) climate control, you are at the mercy of the weather. And when it rained, mud was everywhere.

Mature War Zone. Fortunately, the conditions were as good as they could get in a "mature" war zone like Baghdad. Instead of camping in the woods, it was more like staying in lodging instead of tents. We lived in trailer homes called containerized housing units (CHUs) (Figure 5.24), which in Baghdad were large rectangular metal buildings that were each divided into three rooms. Senior ranking soldiers had their own room with a bed and metal closet, and most junior soldiers shared a room (with a bunk bed and closets). There were lights, electrical outlets, and an air-conditioning unit in each CHU. Some people acquired televisions or a fridge, and nearly everyone had their own computer. With the advances in technology, a contractor made wireless internet available for us, which cost $65 a month, but it was always very slow—especially in the evenings.



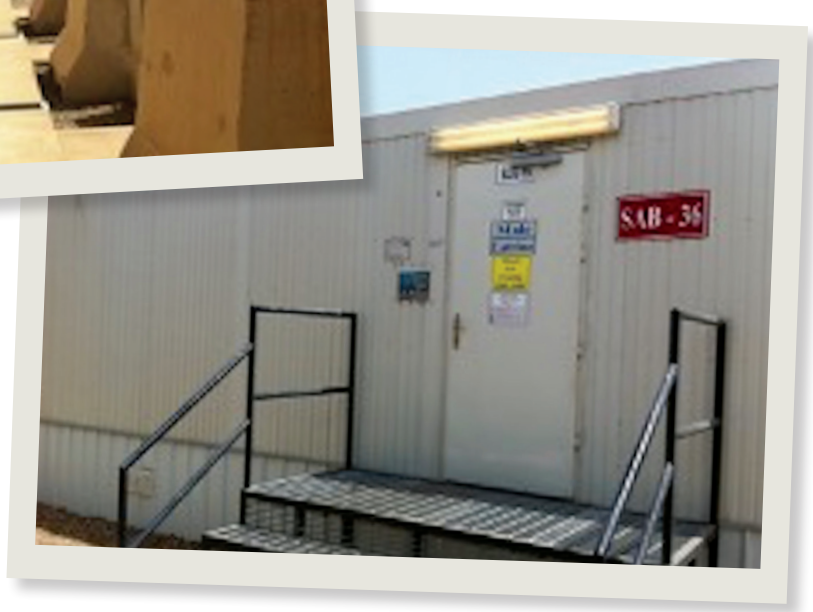
Other major upgrades to a mature war zone are rocks and sidewalks. The Army's answer to dealing with dirt and mud: rocks. Rocks by the truckload were brought into an FOB to cover

[Figure 5.24]
Containerized housing units with sidewalks surrounded by rocks at Sather Air Base in Baghdad, Iraq. Photograph courtesy of Jeff Clemons, MD.

the dirt. That might not seem like much, but we were very lucky to have the rocks. (Ask anyone who has deployed before and they will tell you. It makes a huge difference, especially when it rains!) Our FOB was basically covered with rocks in all of the high vehicular and pedestrian traffic areas. Sidewalks were an even bigger luxury, but they were only located around our CHUs.

Figures 5.25 and 5.26 show adjacent CHUs, and a CHU converted into a latrine or bathroom (they had toilets, showers, and sinks). Bathroom CHUs were nicknamed "Cadillacs," and they were definitely a luxury item as they had hot showers and toilets that flushed. There were contractors that cleaned the latrines daily, by emptying the "black" water into trucks and delivering clean water. *Basically, it was high-quality camping*.

[Figure 5.25]
Containerized housing unit area, Sather Air Base, Baghdad. Photograph courtesy of Jeff Clemons, MD.



[Figure 5.26]
A latrine containerized housing unit "Cadillac," at Sather Air Base in Baghdad, Iraq. Photograph courtesy of Jeff Clemons, MD.

Springtime in Baghdad was nice, but I knew it would become like an oven in the summer. Temperatures ranged from 70 to100 °F in the day to 50 to 80 °F at night. There was some surprising stormy weather with rainstorms, thunder, and lightning—so the weeds bloomed. We also had two sandstorms. They were like snowstorms in terms of visibility, 91 to 182 meters, and then the next morning everything outside was covered with a layer of orange-brown dirt (instead of snow).

The DFAC was another nice feature in our mature war zone. *No one really likes to eat MREs*. They taste bad, mess up your intestines (read: severe constipation), and are loaded with calories and salt, which is good if you are a soldier carrying your gear around all day, but bad otherwise. The DFACs around the VBC in Baghdad were very good, and they all served the same food. We had a main entrée line, a sandwich line, a grill line, an ethnic food line, a healthy low-fat line, and a large salad bar. The food choices cycled through about every few weeks. Everything was overcooked, but that was fine by me, as there was not a single outbreak of food-related disease in Baghdad for as long as anyone could remember—which was impressive!

LIEUTENANT COLONEL CLAUDE C. PERKINS, MD

Lieutenant Colonel Claude C. Perkins, MD, volunteered for deployment three times: twice in support of Operation Iraqi Freedom and once as a forward surgical team member in support of Operation Enduring Freedom in 2012. From December 2002 to June 2003, he served in support of Operation Iraqi Freedom as gynecologic surgeon, 865th Combat Support Hospital at Camp Doha, Kuwait.

UNIT AND OPERATIONAL MISSION

865th Combat Support Hospital

Deployed During Operation Iraqi Freedom: December 2002 to June 2003. The 865th CSH is an Army Reserve hospital based in New York—with the largest units in Utica and Syracuse. Our primary mission was to manage trauma in the theater. The CSH was based at Camp Doha, Kuwait, which is located on the coast, a few miles west of Kuwait City. The camp was home to about 5,000 soldiers and had a troop medical clinic (TMC) for sick call and minor procedures. However, there was not a hospital on the base. For surgeries and inpatient care, the CSH staff worked out of the 5th floor of the Kuwaiti Armed Forces Hospital (KAFH).

In the Beginning. As an Army Reservist, I was called to serve in Iraq, and then I later served 6 months in Afghanistan. I am proud to have served at a time when the Army needed many doctors. My Army career began in 1988 when I was commissioned as an infantry lieutenant in the Regular Army. During the Persian Gulf War, our brigade was packed and ready to go to the desert, but the war ended before we even left Germany. By that time, I had become interested in medicine. I soon left the Army for medical school, followed by a residency in gynecologic surgery and obstetrics. In August 2001, I called the AMEDD (Army Medical Department) recruiters to ask about becoming an Army Reserve physician. The infantry branch had carried me on their roll as an inactive captain for years, and, predictably, had passed me over for promotion to major. (So it seemed like a good time for me to move on.)

Coffee and Commission. The AMEDD recruiter gave me a warm welcome. We met at the local coffee shop and filled out stacks of paperwork, and the recruiter even paid for the coffee. My application to the US Army Medical Corps was approved in June 2002. Around the same time, the infantry informed me that I would be dropped from the Army Reserves entirely.

We were already at war with the Taliban in Afghanistan at that time, and a second war with Saddam Hussein seemed likely. I thought that the Army might need more doctors, so I spoke with AMEDD again. After sending a round of emails and having a waiver signed, I received my captain's commission. A Corps

of Engineers officer swore me in at the federal building in McAllen, Texas, while my wife and daughter looked on. *That was a proud day for me.*

McAllen is located on the border of Texas and Mexico, and there weren't any medical units for me to drill with there. Reserve doctors (like me) who could not drill were assigned to the National AMEDD Augmentation Detachment (NAAD), which was a holding unit located near Atlanta, Georgia. I contacted them and learned that I should find a Veterans Administration or Army hospital where I could work for 2 days each month. For the time being, I was supposed to drop in at the Army Reserve center in San Antonio, Texas, on drill weekends.

I went to the Army Reserve center in San Antonio only one time, in early November 2002. The soldiers there were talking about a possible mobilization, as Iraq and Saddam Hussein were being mentioned in the news every night. When I got home to McAllen, I dragged all my bills, file boxes, and records into the living room and started putting my affairs in order.

Mobilized. Two weeks later, I called the NAAD to clear up some administrative matters. They thought I was "nondeployable" because I hadn't been to AMEDD's 14-day officer basic course (OBC). I politely told them they were mistaken, because my infantry basic training should have counted as OBC. *By the end of the phone call, I somehow had agreed to go overseas with the 865th CSH, and they wanted me to report to the mobilization center 12 days later.*

Army Reserve physicians were usually mobilized through the Continental United States (CONUS) Replacement Center, or CRC, at Fort Benning, Georgia. The CRC was a small compound located about 5 miles from the main post area. A few hundred Army Reserve soldiers reported there each week, and they would spend 6 days drawing uniforms, reviewing medical records, and sitting through briefings. At the end of their week, they would all clear out and fly to their new duty station. The next group would arrive the same evening. (Many active-duty soldiers went through the CRC as well.)

About 100 soldiers from the 865th CSH were already at the CRC when I arrived. "On paper," a CSH is quite large, with about 400 members assigned to it. In practice, only a small section of the CSH would deploy overseas, while the rest would stay home, or were cross-leveled to other units. The 865th soldiers were told to expect a 9- to 12-month deployment to Kuwait.

Reserve physicians and dentists were usually mobilized for only 90 days. In our group, there was one general surgeon and one thoracic surgeon, with an orthopedic surgeon already working in Kuwait. Other specialties included anesthesia, family practice, internal medicine, and emergency medicine, for a total of

about 14 doctors. All the physicians were, like me, called up from the NAAD, without any prior connection to the 865th CSH. Nurses and physician assistants, on the other hand, did belong to the 865th, and had to serve the full year. The 865th commander was Colonel Pehr, a dermatologist who practiced north of Syracuse, New York. *Commanding a CSH is a uniquely thankless job—and he did it well.*

Camp Doha. We arrived at Camp Doha, Kuwait, on 8 December 2002. For surgeries and inpatient care, we worked out of the 5th floor of the KAFH. The KAFH was located about an hour drive away from our camp, so every morning the nurses and medics would put on their helmets, vests, and rucksacks, then convoy over to the KAFH—where they would then relieve the night shift. Each evening, they checked out to the night shift, put all their gear back on, and convoyed back to Camp Doha. No one liked that arrangement, but they stuck with it for the entire deployment.

I saw right away that if I made myself useful around the TMC, I could avoid the convoy to and from the KAFH. The TMC was run by a brilliant warrant officer named Winfield, or "Win." He had been there 15 months already and had just been ordered to stay on for another 4. Win showed me how the clinic worked, and I offered to help out with sick call just to stay busy.

Camp Doha had about 5,000 US troops, with small contingents from Poland, Czech Republic, Australia, Canada, Germany, and the United Kingdom. Most of us lived in big warehouses. Reservists of all ranks stayed in open bays, with about 100 people living in each bay. Temporary latrines were set up in the street outside, and both the latrines and showers were unpleasant. There was usually an inch or two of dirty standing water on the shower side. Nothing was ever repaired because the camp was scheduled to be shut down.

On a more positive note, the DFAC at Camp Doha was excellent, and we had a small PX, a tiny movie theater, a library, and a row of shops and fast-food restaurants. The air-conditioning worked and we always had water when we turned the faucet on. *Clean water matters a lot.*

Gynecologic Care. *I had a lot of work to do.* New units were moving into Kuwait every week. By the end of December 2002, tens of thousands of soldiers were living in new camps in the desert and preparing for the invasion. The 865th CSH was the referral hospital for the region. By March 2003 there were about 200,000 troops in the country.

Most of the work was pretty simple: vaginitis, pelvic pain, cervicitis, bladder infections, hormonal cycle control, etc. Those are minor issues in the United States, but they were extremely important to our female soldiers in the desert. For equipment I had a microscope, potassium hydroxide prep, a portable ultrasound, pregnancy tests, and urine dip sticks. The TMC lab could do some blood tests if I really wanted them. I saw everyone on a walk-in basis, and I believe I did a lot of good for our brave female soldiers and our allies.

We diagnosed several early intrauterine pregnancies with ultrasound. In most cases, the soldier was already pregnant shortly before leaving the US and the pregnancy test became positive only after they arrived in Kuwait. I would see them in the exam room, show them their pregnancy with the ultrasound, and explain that we would start the paperwork to send them home to America. Usually they would cry, and often blurt out, "You can't! I have to stay here!"

Troop Buildup and Extension. The clinic kept me busy through the months of December (2002), January, and February (2003). US and allied troops were arriving in Kuwait daily. Most of them went directly into the new camps in the desert: Camps New York, Pennsylvania, New Jersey, Virginia, and Wolf. Camp Doha filled up as well. A team of doctors and medics from the Missouri National Guard joined us in the TMC, where they kept us entertained with endless stories of past drills and call-ups. In March, we received a group of regular US Army nurses from the 28th CSH, so the TMC was finally fully staffed.

I had expected the invasion to start in February while the weather was still mild. But the days went by, more and more troops moved into Doha, and still we waited. Our 90-day rotation neared its end. I asked Colonel Pehr if I could stay another 3 months, and my request was quickly approved. Two of our general surgeons, Andy Gabow and Adam Kaplan, also stayed on. The new group of doctors arrived in the second week of March. When the day came, we all shook hands with the old group, and watched them drive away to the airport to go back home. I mentioned to Colonel Pehr that Mrs. Perkins, my wife, didn't need to know about my deployment extension request.

Camp Doha emptied out just before the invasion, as troops moved into assembly areas and went into lockdown. The Polish Special Forces disappeared from our building. There weren't platoons of Australian infantry eating Subway sandwiches by the PX anymore. One of my last patients was a lovely young Military Police (MP) sergeant who appeared in my exam room with her flak vest, magazine pouches, and carbine (carrying a full issue of ammunition). She said, "Hey doc, I need refills on my birth control pills." *What could I say? Take all you want.*

The War Starts. The war started with airstrikes on 19 March 2003. The TMC at Doha played no part in treating war casualties, so we had nothing to do except take care of sick call and watch television reports of the fighting. Everyone believed that Saddam Hussein still had chemical weapons, so we wore mission-oriented protective posture (MOPP) suits for the first few days. When Saddam's troops retreated without firing any chemical weapons, we changed back into desert camouflage and carried the MOPP gear in our rucksacks.

We had about 20 alarms for incoming Iraqi missiles. With each alarm, we had to put on our gas mask and then slip into the MOPP suit, complete with rubber boots and gloves. I think eight of the alarms were followed by actual missiles. The missiles exploded harmlessly outside the camp, but they rattled the roof panels and shook some dust down on our heads.

Our two general surgeons, Major Kaplan and Major Gabow, went north to work with an FST in southern Iraq. Colonel Pehr asked for volunteers for any other Iraq missions that might come up. I added my name to the list. About a week later, as our troops were entering Baghdad, the commander told me to pack up and prepare to go north.

[Figure 5.27]
Lieutenant Colonel Claude Perkins, MD, and his team in Scania. Photograph courtesy of Lieutenant Colonel Claude Perkins, MD.

The mission was to establish a small aid station on the main highway to Baghdad, called Main Supply Route (MSR) Tampa, which handled nearly all the convoys moving north from Kuwait. The aid station would be about 145 km south of Baghdad, at a base called Scania.

We had a few days to pack our supplies and gear. We left Doha in a small convoy at about 0700 hours. Movement to the border was strictly controlled with MP escorts and traffic control points along the way. We stopped at the border for final instructions, then drove north with, I believe, a couple of Humvee gun trucks as escorts. The medical detachment included two or three Humvees and several 2.5-ton trucks. None of the vehicles were armored, as roadside bombs were unknown at the time.

The drive through the open desert was a real treat. We had spent 4 months confined to Camp Doha, surrounded by concrete walls and watchtowers, so even the sand and rocks looked great. We drove as far as Tallil, spent the night at the CSH there, and visited the temple at Ur the following morning. Temperatures were already in the 90s (°F). After a long, hot drive, we finally arrived at Scania (Figure 5.27) around dinner time.

Scanía. Scania was created as a convoy supply center where soldiers could rest and refuel their vehicles while on their way to Baghdad. The base headquarters was set up in a brick building that had once been a restaurant called The Sheikh. Concertina wire made an oval enclosure, about 275 meters long and 90 meters wide, running alongside the highway. A cement plant stood about 90 meters north of the old restaurant.

The base commander was Lieutenant Colonel Tatum, who is a fine man and an excellent leader who was respected by all. He commanded two reduced companies of MPs who patrolled the highway, established checkpoints, and manned the front gate. A detachment from Lightning Troop of the 2nd Armored Cavalry Regiment was running patrols out of Scania as well. An infantry platoon from the US Army National Guard lived by the cement plant and patrolled the local area on foot. The total population of the base was about 250.

Living conditions were austere. Lieutenant Colonel Tatum and his first sergeant shared a tiny concrete room, and they had one or two small electric fans. The MPs slept on the roof of the restaurant or in general purpose medium tents. The infantry lived in a makeshift camp of tarps, camouflage nets, and shanties. We filed through the food line and ate our T-rations outdoors in the sun. Trash and garbage were burned in a big pile by the highway.

Life at Scania wasn't bad, but every drop of water had to be hauled 300 miles up MSR Tampa from Kuwait (Figure 5.28). The water rules were as follows: you could drink as much water as you wanted;

hand washing was encouraged; bathing was limited to two showers per week, each consisting of three bottles of water (4.5 liters total); and uniforms could be washed only if circumstances allowed for it. It was often 108 °F in the afternoons, so we were all miserably hot and dirty.

My medical team included three nurses from the 865th—Pat, Nick, and Phil. Pat was a nurse practitioner who did family health in her own clinic in upstate New York. She was used to seeing both adults and children, so I made her the patient care provider. Nick and Phil were both ICU nurses, so I asked them to support and assist Pat in every way possible; they worked well together and were a fine team.

In addition to the nurses, I had four Army Reserve medics from California, who had arrived at Scania several days before us along with two frontline ambulances. Their squad leader was Sergeant Coronado, and he ensured that the ambulances were checked and maintained at all times. His medics, Specialists Donez, Sanchez, and Buchanan, were all smart, hard-working soldiers. Another fine nurse, Sergeant Downs, joined us a week or two later.

[Figure 5.28]
Lieutenant Colonel Claude Perkins, MD, and his team on Main Supply Route Tampa. Photograph courtesy of Lieutenant Colonel Claude Perkins, MD.

Gastroenteritis. The chief medical problem in the camp was gastroenteritis. Every day we had three or four soldiers who had vomiting, diarrhea, and low-grade fever come to the aid station. We usually gave them 1 or 2 liters of IV fluids, Phenergan (promethazine, Ani Pharmaceuticals), Tylenol (acetaminophen, Johnson & Johnson), and sometimes IV pain medications. After they had rested for a while and could drink water without vomiting, we sent them back to their tent with Phenergan tablets and instructions to drink plenty of water.

If they were still sick after 2 days, we would prescribe Bactrim (sulfamethoxazole, Sun Pharm Industries). Most people were back at work by the second or third day.

We encouraged everyone to wash their hands several times daily, especially after using the latrine and before eating. But as time went by, the hand washing efforts seemed to be futile. At one point, we had 10 people down with gastroenteritis on a single day. The underlying problem was, I believe, the lack of water. We never took a real shower, uniforms were always dirty, and all 200 of us were using the same limited number of outhouse-latrines.

The Aid Station. Lieutenant Colonel Tatum gave us the front room of the restaurant to use as our aid station. We set up two litters on metal frames to serve as treatment beds. Aluminum supply chests that were filled with medicine, IV, and bandages were stacked in the corner, and folding chairs, small tables, cots with green Army blankets, and crates of water bottles were arranged around the walls. We also had a military radio that was connected to the camp's satellite link, which allowed us to exchange emails with the 865th command element at Camp Doha. (Pat sent a daily situation report for us.) I avoided the radio altogether, as I was supremely confident in our ability to run the aid station unassisted.

The Iraqis living around Scania were mostly poor farmers who had very little money to pay for any medical care. Some of them decided to ask the Americans for help. The general policy (as of 2013) was that we would treat only the civilians who were wounded on the battlefield. All others had to seek care from their local doctors. However, the policy in 2003 was more flexible, and CSH commanders had some leeway in deciding who received treatment. The CSH nearest to Scania was at Dogwood, which was about 36 kilometers to the northeast. Dogwood would accept an occasional civilian who was in danger of losing their life, limb, or eyesight—even if the illness or injury had no connection to the war.

On our first day at Scania, a sergeant from the National Guard asked if we would see a child from the local village. They ran a foot patrol through there every day, and a young couple kept asking them to look at their baby. I thought this would be a chance to make a good first impression on the Iraqis. Pat, our nurse practitioner, said she was fine with it. The sergeant came back an hour or two later with the Iraqi couple who had also brought their baby and a relative who spoke some English. Pat examined the baby and took its temperature, but the baby seemed fine; the parents were just anxious. We reassured them, suggested that they boil the water first if they used formula, and answered a few of their questions. The parents then seemed satisfied and took their baby home.

We later made several visits to their small farming village, Abu-Umm-Sheikh, which was located about 182 meters east of our camp and on the far side of an open field. It included 20 or so houses that were

all built along a canal and had a dirt road meandering between the houses, in an area that was heavily planted with date palms, figs, and pomegranates. Each time we visited the village we talked to the people about their medical problems and gave them medicine when appropriate; they were always grateful and treated us like royalty.

Al-Shomali. The nearest (large) town was Al-Shomali, which was located about 6 kilometers east off a two-lane, paved highway. Al-Shomali had about 10,000 people crowded together in concrete neighborhoods, and it had several schools, a government health clinic, and a main business street that ran for about five city blocks. Lieutenant Colonel Tatum made frequent trips to Al-Shomali to meet the Mayor and discuss the security situation. The people in Al-Shomali were mostly Shiite, and they had risen up against Saddam in 1991. The security services crushed the uprising and executed many of the local men. Around Al-Shomali, strangers would often walk up to us, shake our hands, and say, "Thank you! Saddam kill [sic] my brother! Thank you!"

We went to visit the government clinic in Al-Shomali one day. The head of the clinic, Dr Mustafa, spoke English well and asked if I had any new information about the severe acute respiratory syndrome (SARS) outbreak that occurred in China. I did not. He gave me a quick tour of his clinic, which was essentially an empty concrete shell. The pharmacy had bare shelves, except for a few bags of normal saline, but no IV tubing to run it in. If someone needed a procedure, they had to drive from town to town and from one pharmacy to another until they could assemble the necessary supplies. We sent Dr Mustafa some of our antibiotics and extra supplies as a goodwill gesture.

MSR Tampa. Because we were the only medical team in the area, we tried to help out with anything that happened along MSR Tampa. Shortly after we arrived, a convoy brought us two soldiers who had an accident involving their vehicle: the driver fell asleep, ran off the road, and plunged into a canal. Their buddies pulled them out, put them in the company ambulance, and brought them to Scania. They were wet and a little bruised, but otherwise uninjured. Helmets and seat belts really do save lives.

Another time we received a call saying that a vehicle had crashed and burned a few kilometers south of us. We took an ambulance (with MP escorts) and drove about 24 kilometers south, toward Diwaniyah. When we arrived, we found a US Marine convoy stopped on the road. A white government vehicle was partially burned and lying on its side—but nobody was hurt. Across the road, a squad of Marines were gathered around an overturned 5-ton truck. The driver was pinned beneath the cab; she was awake and talking, but obviously in a lot of pain.

A senior Navy corpsman had already checked her out and called for a MEDEVAC, so there was nothing more for us to do. As we prepared to leave, the entire marine squad pitched in to rock the vehicle off of the young driver, and held it just long enough to allow the PA and corpsman to grab her and pull her out. She was in a great deal of pain, but did not have any broken bones. A Black Hawk arrived a few minutes later to MEDEVAC her, and then we drove back to Scania.

Another brave soldier wasn't as fortunate. One day we were sitting by the aid station after lunch when a call came in stating that an American had been shot on the highway. Pat, Nick, and Phil set up a stretcher and prepared to resuscitate the casualty. Moments later, a Humvee came through the gate, and some soldiers brought us the injured young man on a stretcher. His face was gray and his pupils were fixed and dilated. I think we all knew he was gone, but we went ahead with the resuscitation procedure; we called it after about 20 minutes. Dogwood sent a Black Hawk to transport the body, and the convoy continued on to Baghdad. It was a sad day for all of us.

We had one other gunshot wound during our time at Scania. On a hot afternoon, we got a call to bring the ambulance to a checkpoint on the highway, just a couple kilometers north of the camp. We set out just a few minutes later, along with our MP escorts. The checkpoint was up on a bridge overpass and the road was blocked, so we drove the field litter ambulance (FLA) across an open field and up the embankment. At the checkpoint, we found a small white sedan with a slender young man laid out on a sheet inside with his uncle and brother standing nearby. There appeared to be a bullet wound in his midabdomen. The MP sergeant there whispered that the man had lost consciousness a few minutes earlier, and he no longer had a pulse.

We set him on a stretcher and drove him back to the camp. Again, we knew he was gone, but felt obliged to try everything. Pat led the nurses and medics in trying to resuscitate him. No results. The uncle and brother came in a few minutes before we called it. Our translator explained what had happened, and they reacted with the anguish one would expect. We never learned how the young man had been shot. First, we heard it was an accident. Later, we heard that there had been some kind of confrontation—but the Iraqis kept it strictly among themselves.

The relatives took some time to view the body, then asked us to transport it to the uncle's house. We put together a small convoy with the FLA, a Humvee, and an MP gun truck. I did not want to take our vehicles onto any side streets, so I suggested to the MP sergeant that we stay on the main road and stop short of the family's home. Our translator smiled and assured us by saying, "No problem, my friend!" He hopped into the lead vehicle and drove off with the sergeant. We followed and, in a short while, found ourselves wedged in a tiny alley in Al-Shomali.

Sergeant Coronado and the medics carried the stretcher with the body on it into the concrete house. The front room was completely bare except for some dirty blankets and pillows. We left the young man's body on an Army blanket and hurried back to our vehicles. By that time there were at least 100 villagers blocking the alley to our front, and 100 more were located to our rear. I hoped that someone had told them we weren't the ones who killed the man. We sat for 5 very long minutes while our translator yelled at the people, coaxing them to let us out. We inched forward, honked the horns, and finally got back to the main road.

This young man's death was tragic, but it was also an opportunity for us to show that American Soldiers were decent and professional. *We tried to save him. We treated him and his relatives with respect. People notice that kind of thing.*

Community Engagement. Over time, we had more people come to our front gate and ask for help with their sick relatives. We could not see people at the gate (it wasn't safe) so we put out the word that we could see locals twice a week, Mondays and Thursdays, in a dirt parking lot near the camp. We took an ambulance, a translator, a supply of medicine, and a security detail from the MPs. Most of the Iraqis who came had chronic illnesses that we could not address. But we talked to people, gave out palliative meds as needed (antibiotics, Tylenol, electrolyte packets, steroid and antifungal creams, etc), and generally tried to be helpful. We called it the "tailgate clinic," and it worked well . . . at first.

By the end of the second week, we had at least 50 people show up. We could not see them all. The ones we could not see angrily walked away. In the third week, we had over 100 people show up. We could not possibly see all of them either, and the ones who came late also became angry and left. Unfortunately, that was the end of our tailgate clinic.

The Sheikh. Lieutenant Colonel Tatum took me along on a visit to the local sheikh one day. He lived in a compound about 40 kilometers north of us, where the countryside featured open fields, canals, adobe walls, palm groves, farmhouses, and a few wandering goats and donkeys. The sheikh's house was surrounded by date palms and brick walls, and I assumed it had been built as a small fortress back in the 1920s.

The sheikh greeted us warmly and brought us a feast of lamb and rice. He was proud to tell us that Gertrude Bell had once been a visitor, and he showed us photos of British officers who had gone hunting there before World War II. Lieutenant Colonel Tatum presented the sheikh with some gifts, then we all shook hands and promised to be friends.

Before we left, the sheikh showed me an empty box of blood pressure medication. He had run out weeks ago, and because of the invasion, the local pharmacies had none to sell. Luckily, they kept blood pressure medication in stock back at Camp Doha, so we sent a request by email for a one-year supply. A few days later, the medicine arrived at Scania, and Lieutenant Colonel Tatum took them up to the sheikh during his next visit. (The pharmacy never asked why I wanted the medicine, and I never told them.)

Diabetic Ketoacidosis. Local people often approached our MPs at the checkpoints and asked if we could help their sick relatives. We would usually drive out in the ambulance to see them, but find that we had nothing to offer. One time the MPs called and said there was a sick child at the south checkpoint. We could not say no to a sick child, so I went out in the FLA, with an escort, to see what they had.

The family had come up in a white passenger van. They brought a nine-year-old boy who had thin, spindly arms and legs and a swollen belly that could usually be seen from starvation; he was very ill. The rest of the family was healthy and well dressed. The parents said that he ate and drank well, but he was always thirsty. He wasn't vomiting but had recently developed diarrhea. The weight loss and constant hunger had been ongoing for weeks. They had seen an Iraqi doctor, but there was not a diagnosis, and the boy was getting worse. I was stumped. We invited them all back to Scania because we were still on good terms with the CSH at Dogwood, as there was a chance Dogwood would take him as a life-limb-eyesight case. I thought he might have some kind of parasites, but if not, I knew the internist at Dogwood could probably figure it out.

On the way back, I kept thinking about how they said, "He's always hungry, and he's always drinking water and juice." Then I remembered a historical obstetric case I had read about in medical school. Sometime in the late 1800s, a young German woman developed an unquenchable thirst during pregnancy, and she died during her third trimester. The final diagnosis: type 1 diabetes.

When we arrived back to the aid station, Pat took a urine sample from the boy and checked it with a dipstick. The glucose panel immediately turned dark green, showing a high level of sugar in the urine. We called Dogwood and told them we had a child with possible diabetic ketoacidosis, and they said to bring him up.

We headed up to Dogwood after sundown, and I rode in the back of the FLA with my little patient. As the miles went by, the air in the vehicle seemed unusually hot, humid, and stifling. The rocking motion of the ambulance made me queasy. My patient had another bout of diarrhea in a cardboard box, which I managed to toss out the back door of the FLA. I felt a little feverish and counted the remaining minutes until we arrived at the CSH.

When we finally arrived at Dogwood, we stopped in front of the CSH and opened the back of the FLA. A nurse took our patient over to the intake tent. I headed for the latrine, but I only took a few steps before I fell to my knees and became violently ill. Profuse watery diarrhea ensued shortly: another gastroenteritis case.

The boy's blood glucose was over 500, confirming that he had undiagnosed type 1 diabetes diabetes. His blood sugar would come down with IV fluids, electrolytes, and an insulin drip, but in the long term he would need insulin daily. We thanked the staff at the CSH for taking him, and then headed back to Scania.

My 40th Birthday. I spent the next several days lying on a stretcher in the aid station. Pat gave me the usual IV fluids and Phenergan, and I slept for about 24 hours. All of that running around in the heat had worn me out, but I was back at work after a few days. I still felt pretty weak, so I didn't go out as often. Most of the time I just sat in a plastic lawn chair, drank bottled water with electrolyte packets, and tried to stay out of the burning Iraqi sun. *That is how I spent my 40th birthday on 15 May 2003*.

The Medicine Cache. When we ran the tailgate clinics outside the camp, the Iraqis insisted that there weren't any medicines available in the area. Supplies had always been low as a result of the sanctions, and nothing had been delivered since the start of the war. One day, the MPs mentioned that they were going up to the Green Zone as one of their platoons was working the gate at the National Palace. I asked if I could go along, thinking that someone in the reconstruction authority might help me find medicine for the government-run clinic in Al-Shomali.

The trip up MSR Tampa took about 2 hours. The road itself looked exactly like an American interstate highway, and I wondered if it had been built by US engineers. We found our MP platoon guarding the entry into the National Palace grounds. I headed over to the palace to see about the meds while the Scania MPs unloaded mail and supplies and traded stories with their friends; the platoon sergeants made plans, compared notes, and explored the area a little.

The palace was a busy place, with staff officers, civilian contractors, and soldiers moving in all directions. A pair of Nepalese soldiers were standing in the doorway, and they smiled, nodded, and checked my rifle to ensure it wasn't loaded. I asked around and found out that the Ministry of Health planning group met in a certain conference room every afternoon. I waited in the hallway in front of the conference room at the appointed time, but nobody appeared; the meeting had been cancelled. I chatted with Lieutenant Colonel Smith for a while (who did some work with the planning group), then I headed back to the MP shack.

I saw that there was a temporary latrine set up in the yard behind the palace. I must confess that I ducked in, dumped all my gear on the floor, and took a shower before joining the MPs. I knew it was wrong because my guys back at Scania couldn't take any showers, but it felt great.

We returned to the Green Zone a few days later, bringing more supplies for the MP crew at the gate. I went back to the Ministry of Health conference room and waited. Again, the meeting was cancelled. Lieutenant Colonel Smith now suggested that I come back the following week, because he might have a lead on some meds; I thanked him and promised to return. *That time, I took a shower AND washed my uniform in the sink*.

We returned with a small truck the following week. Lieutenant Colonel Smith took a sport utility vehicle and led us around Baghdad for half an hour or so. Then we parked near a hospital district and went to meet the American platoon stationed in the area. We found an infantry platoon from the National Guard (of Indiana, I believe). Their lieutenant looked exhausted, as if he'd been out checking his perimeter all night. He was a good man, and he put together a detail of infantrymen to escort us as we all set out for Lieutenant Colonel Smith's storeroom.

After a short walk, we came to a stairway that led down into a basement. We reached a steel security door that was locked with a padlock. We called back to the infantry platoon and asked for a pair of bolt cutters, but nobody there had a set. One of the infantrymen tried cutting the lock with the serrated edge of his bayonet. He sawed for about 10 minutes before successfully cutting the lock. You can always rely on the infantry!

We turned on the light switch, and I was amazed: it wasn't a storeroom, it was an underground government warehouse. The first room was as large as a football field. I guessed there were between 500 and 1,000 crates and boxes filled with medicine. It was all US property, and we could definitely put it to good use.

I had to work fast, because the sun was about to go down. I acquired a good assortment of antibiotics, cardiac meds, pain meds, steroids, anti-fungal creams, and anything else that looked useful. There were no narcotics in the warehouse; there were, however, endless boxes of tranquilizers, so I brought some along.

It took an hour or so to fill our small truck with the medications. I thanked Lieutenant Colonel Smith and the National Guard, then we linked up with the MPs at the palace and drove back down to Scania in the dark. Back at our aid station, I sorted the meds into two piles: The larger pile was for Dr Mustafa's government clinic, where he could distribute things as he saw fit; a smaller amount would stay at Scania and would be passed out to the local people.

One Last Patient. Then, just like that our time at Scania suddenly ended. A radio message informed us that another group of medics would take over the aid station there, as the 865th was preparing to leave Kuwait. I asked for permission to stay on at Scania, but it was not granted. So, we packed our bags and prepared to sign over the aid station to the new group.

We saw one last patient before we left: a 12-year-old boy who climbed a palm tree around dinner time fell and broke his right femur in the midsection. It was a closed fracture, but the bone was completely disconnected, and his thigh was freely mobile in all directions. It looked like life-limb-eyesight case to me, so we put him on a stretcher and drove him down to the US Marine base by Diwaniyah. It was already dark when we arrived at their surgical unit.

The Navy corpsmen had said before that they were not busy, and they might take on some sick or injured locals. This time, however, the rules had changed. They were only taking Iraqis who had been directly injured by US forces. Falling from a date palm didn't count, unless I could persuade them that I had climbed up after the boy and pushed him to the ground myself.

The Navy said the local hospital had reopened and gave us driving directions from their camp. We drove around Diwaniyah in the dark for about half an hour. The streets were deserted, with nearly all the streetlights and houses blacked out. It looked like the end of the world as we drove along the stretches of broken concrete and saw all the bullet holes. After driving in circles, we finally found the hospital. The patient intake, like Dr Mustafa's clinic, was a concrete room that was almost entirely bare. There were some benches, folding chairs, and a few beds with bare mattresses. Patients and families milled around, holding X-rays and doctor's notes. The hospital staff would appear for a few minutes, talk to someone, and then disappear again.

We were in luck, because a surgeon soon came to meet us, and said he would take our patient. We thanked him and prepared to leave. I felt mortified about our inability to help this boy in our facilities. Before leaving, I shook hands with the father, gave him a hundred-dollar bill from my wallet, and told him we all sincerely wanted his son to recover quickly. He hugged me and kissed me on the cheeks. *I mention this because I think small gestures can go a long way in an effort to build trust with the local people.*

Return to Kuwait. A few days later, we said goodbye to Sergeant Coronado and the medics and returned to Kuwait. The drive down MSR Tampa was long and hot, and my recent illness had left me

feeling weak, run down, and gloomy. What I remember best about our return to Camp Doha was this: endless gallons of water, pure and clear, gushing and pouring out of every faucet. I stayed on at Camp Doha for a few weeks, then said goodbye to my colleagues from the 865th. I flew back to the US, out-processed at the CRC, and returned to McAllen, Texas. My beautiful wife forgave me of my many transgressions and welcomed me home. On 1 July, I was delivering babies once again.

Two More Combat Deployments. I later served 18 months at Forts Drum and Hood, covering for physicians who were serving in Iraq. In 2012 I served for 6 months in Afghanistan with an FST, and later came back to Kuwait for 6 months. It was not bad; Camp Doha had closed years ago by then, and the new place had a swimming pool. *After 10 years I can say that our female soldiers are the bravest and the best women in our country. If you are a gynecologic surgeon with a positive attitude and a clean record, please consider joining us. Call an AMEDD recruiter. They'll even buy you coffee!*

LIFE AFTER DEPLOYMENT

Dr Perkins returned to Texas after his tour in Iraq and continued in private practice. Colonel Perkins retired from the reserves in 2018, almost 38 years after he first reported for basic training at Fort Dix, New Jersey. He currently works on the Navajo Reservation in Arizona, where he spends his free time studying Army history.

COLONEL JACQUELINE S. THOMPSON, MD

Colonel Jacqueline S. Thompson, MD (Figures 5.29 and 5.30), served as gynecologic surgeon, 645th Combat Support Hospital at Contingency Operating Base Speicher in Tikrit, Iraq, during Operation Iraqi Freedom from September 2008 to January 2009. She also served as gynecologic surgeon, 325th Combat Support Hospital at Camp Arifjan, Kuwait, during Operation Iraqi Freedom from October 2011 to January 2012.

UNIT AND OPERATIONS

645th Combat Support Hospital

[Figure 5.29] *Colonel Jacqueline Thompson, MD, gynecologic surgeon with the 645th Combat Support Hospital in Tikrit, Iraq. Photograph courtesy of Colonel Jacqueline Thompson, MD.*

Deployed During Operation Iraqi Freedom: September 2008 to January 2009.

The role of the 645th Combat Support Hospital (CSH) was to support Contingency Operating Base (COB) Speicher and the outlying Forward Operating Bases (FOBs) by providing all their medical needs.

Acute Care Clinic. I was primarily responsible for the daily operation and staffing of the acute care clinic (ACC) where we served active-duty soldiers, eligible government employees, and contractors of various nationalities. The ACC was open daily during "regular business hours," but I also had on-call responsibilities 24 hours per day for any gynecologic or obstetric consultations that were needed. The ACC caseload was approximately 15 to 20 patients per provider daily, with two providers assigned. Most of the diagnoses were minor illness: a range of gastrointestinal, urologic, and orthopedic complaints and dermatological and general medical issues. The gynecology clinic was available two afternoons per week, and we addressed all types of female medical issues. The storage container set aside for gynecologic care had a colposcope, a handheld ultrasound, and a few instruments; there was also a pelvic exam table. Overall, the setup was similar to any gynecology clinic in the United States. The OR capabilities were not sufficient for any laparoscopic

procedures, and I did not perform any gynecologic procedures during my tenure other than incision and drainage of a vulvar abscess (caused by methicillin-resistant *Staphylococcus aureus*, MRSA).

Surgical Care. My main role in the OR was to support my general surgery and orthopedic colleagues by performing wound washouts and other procedures. I did care for a pregnant Iraqi national who was badly burned on her face and neck, and I provided daily documentation of her baby's heart tones and conducted ultrasounds at times. She required surgical debridement in the OR, and I provided first assistant surgical support for that procedure with general surgery. Additional duties included support for the Provincial Reconstruction Team where the primary responsibility was to teach local Iraqi midwives. Overall, I functioned in the usual capacity of a gynecologic surgeon consultant in a field setting, and I was very happy with the level of care that I was able to render—despite the limited equipment we had available.

Kuwait. I volunteered for duty in Kuwait from October 2011 through January 2012, in addition to my deployment to Iraq in 2008. My experience in Kuwait was very different from the experience I had in Iraq because my sole responsibility was to be the gynecologic surgeon and obstetric consultant for the 325th CSH at Camp Arifjan, in Kuwait. I had a fully equipped gynecology clinic with two portable ultrasound

[Figure 5.30]
Colonel Jacqueline Thompson, MD, gynecologic surgeon at the 645th Combat Support Hospital. Photograph courtesy of Colonel Jacqueline Thompson, MD.

machines and a colposcopy setup. Furthermore, the OR was able to accommodate minimally invasive procedures (including laparoscopy), and I had a fair number of surgical cases during my deployment at that facility. I also frequently assisted the general surgeon and the orthopedic surgeon in their surgical cases.

THOUGHTS ON DEPLOYMENT

In my opinion, the main issue with deployment was not the deployment itself, but was more the difficulty of deployment through Fort Benning's CRC. That was quite a painful experience, and the "training" did not really prepare me for my actual duty. I felt it could have been skipped or greatly curtailed with no detriment.

I never felt that I was placed in a position where I was asked to take care of patients whom I was not qualified to care for as a gynecologic surgeon. I did assist the general and orthopedic surgeons on a voluntary basis, and I was very grateful for those experiences.

The Iraq deployment changed my life . . . for the better. I did not feel overly limited in my ability to serve as a gynecologic surgeon and obstetric consultant in a theater of combat operations, and I recognized the need to avoid any elective procedures in an effort to preserve resources and prevent complications that could not be dealt with in theater. When I returned to my civilian gynecology practice postdeployment, I found that taking care of routine gynecologic conditions in civilian patients was not as fulfilling as when I was serving soldiers. For that reason, I left my civilian practice shortly after returning, and I have subsequently been employed as a DOD civilian at a military medical treatment facility where I can continue to feel useful in the day-to-day lives of soldiers and their families.

LIFE AFTER DEPLOYMENT

Dr Thompson retired from the Army Reserve as a colonel in 2018 after 25 years of service. She subsequently spent 12 years at Womack Army Medical Center in Fort Bragg, North Carolina, and retired from Army Civilian service in 2021. She is now working exclusively for Teladoc.

COLONEL BRIAN BELSON, MD

Colonel Brian Belson, MD (Figure 5.31), served as gynecologic surgeon, 10th Combat Support Hospital, Tallil Air Base, Nasiriyah, Iraq, during Operation Iraqi Freedom from March to October 2006. He also served as chief of clinical operations and deputy commander for clinical services, 28th Combat Support Hospital, Kandahar and Bagram Air Base, Afghanistan, during Operation Enduring Freedom from May 2013 to February 2014.

UNIT AND OPERATIONS

10th Combat Support Hospital

Deployed During Operation Iraqi Freedom: March to October 2006. The 10th CSH provided trauma, Role 2, and Role 3 care in split-based operations in Baghdad and Tallil. I was assigned to Tallil as the chief of surgery, overseeing the FST there. I provided gynecologic surgical coverage, primary care, and ER call every third day. We performed some humanitarian work, but we were limited by the rules of engagement. Other NATO countries had medical care sites and provided local care, and we supplemented when and where we could (when allowed). While we were located on Tallil Air Base in Iraq near Nasiriyah, Iraq, the main element of the CSH was located at Ibn Sina in Baghdad. Our unit was a 90-member slice that supported operations (including that of coalition forces and contractors) along the MSR in southeast Iraq from Basra to Baghdad. We had an FST as our surgical capability.

[Figure 5.31] *Colonel Brian Belson, MD, at the 28th Combat Support Hospital on Kandahar and Bagram Air Base, Afghanistan. Photograph courtesy of Colonel Brian Belson, MD.*

The rules of engagement at the time were local civilian care only for life-limb-eyesight, so we did little humanitarian work unless it met those criteria. There was an Italian Red Cross hospital on the post as well, and they did a great deal of humanitarian work (we assisted when we could or when we were asked to do so). There was also a Romanian field clinic, and halfway through the deployment an Australian unit of about 800 soldiers showed up, with a small medical staff to support them.

Theater Consultant. My experience in Iraq was very rewarding. We weren't too busy at Tallil; however, we were not staffed with enough providers to cover all the hours. Due to staffing issues, I covered the ER in 24-hour shifts every third day, splitting time with a family practice and an internal medicine physician. I learned a great deal about primary care while covering the ER, and I participated in multiple trauma surgeries as a first assistant (and the subsequent surgical takebacks). I was also covering for all gynecology consults as the theater consultant for gynecology and obstetrics because I was the only gynecologic surgeon in southeast Iraq during that time.

We had several gynecologic surgeons deployed as general surgeons in Ibn Sina Baghdad, so I rotated to Baghdad to give the other gynecologic surgeons there a break. I mostly performed primary care on men, which took some getting used to, but I did have a colposcopy clinic, performed biopsies, and saw a weekly gynecology consult clinic. I also spent some time learning about staff work because the 10th CSH was planning on moving to another location, which ultimately did not happen during our tour. Overall, it was an eye-opening and valuable experience.

I participated in many things that gynecologic surgeons typically would not do: trauma care; surgical triage; and nongynecologic surgical procedures such as chest tube placement, appendectomies, wound washout, amputations, and assisting or working as the primary surgeon with general surgeon assistance. I also treated many heat casualties and provided preventive medicine and basic primary care. On the downside, I had to pronounce multiple people deceased and complete death certificates, which was something I normally wouldn't do in my practice.

Tallil. Even though we were a small group, we worked very closely together to help the hospital function well. We were responsible for trauma, inpatients, and the ER. With only three doctors available to cover 24 hours of care—supplemented by the FST general surgeons and orthopedic surgeon for trauma—we became a very close-knit group. *I often scrubbed in with the general surgeons or orthopedic surgeon to help with cases such as wound washouts, amputation revisions, and open appendectomies. Of course, all hands were needed for MASCAL or trauma situations, so I assisted with "damage control surgery" and served as a force multiplier, freeing up a general surgeon to start another case. I was able to place chest tubes, do extensive laceration repairs in nongynecologic areas, and generally serve as a capable surgical assistant. In addition, while covering the ER, I was able to transition to acute medical emergencies, addressing chest pain, abdominal pain, and orthopedic injuries. Having a collegial relationship with the other physicians allowed me to expand my medical knowledge in nongynecologic situations, and I knew I always had definitive back-up if I ever felt that I was in over my head.* It was very rewarding to have that responsibility and the opportunity to perform in leadership positions.

There was a separate outpatient clinic staffed by the deployed brigade combat team's medical element. They ran the outpatient clinic every day, but I was able to serve as a consultant for all gynecologic conditions and help cover with acute surgical questions, which freed up the general surgeons to concentrate on the OR schedule.

There was not enough patient volume in Tallil to occupy an entire FST, so we rotated one general surgeon up to Baghdad for several months at a time to help out there and to help the surgeons maintain surgical experience. I was able to swap positions with a gynecologic surgeon in Baghdad for a month, which allowed me to see the markedly higher volume of trauma at Ibn Sina firsthand. While there, I filled in the gynecologic surgery call schedule and covered nongynecology admissions to the ward. Some of my patient load included several patients who had pulmonary emboli and acute hypertensive crisis, and one patient with Stevens-Johnson syndrome. Overall, it was a fascinating experience, and I was able to participate in true MASCAL scenarios and witnessed how efficiently the staff at Ibn Sina responded.

28th Combat Support Hospital

Deployed During Operation Enduring Freedom: May 2013 to February 2014. The 28th CSH deployed as a medical headquarters (HQ), overseeing and supervising all Army health care for echelons above brigade. We had all the Army preventive medicine, behavioral health, dental, veterinary, surgical, and the only blood bank detachment in Afghanistan. Our providers and staff also assisted the Afghan medical system so they could begin taking over the health care responsibilities for their own people.

Afghanistan: Nothing Like Iraq. Afghanistan was completely different from Iraq. I was the chief of clinical operations and DCCS. I spent the majority of my time preparing for deployment, managing the Army health care system in Afghanistan for our direct reporting units, adjusting to rapidly changing requirements (and a massive drawdown), and trying to maintain our unit's medical capabilities. I traveled extensively around the country to visit many of our small unit's locations, which were often co-located with NATO assets—and very different from Iraq.

Working With NGOs. Our unit cooperated with other non-governmental organizations (NGOs) and the United States Agency for International Development (USAID) to see how we could support the transition of medical care to the Afghan system. We spent much more time in planning sessions and briefings as a HQ, and our mission was to provide HQ control of our Role 2 FST assets, often splitting them to jump and cover small-base closures. Eventually, our higher brigade HQ was sent home early, and we assumed their role as well. This deployment was an extremely valuable and enlightening experience,

and much different than my prior deployment to Iraq. None of the gynecologic surgeons who were deployed in Afghanistan at that time served primarily as gynecologic surgeons, so the six or so of us set up an email group to handle gynecologic consultations in our own locations, or we traveled to the patients, depending on where they were. I also assisted one of our FSTs with seeing patients at a Korean hospital on Bagram; they were taking care of the local Afghans and mentoring a local female physician who was a gynecologic surgeon. I also performed multiple cases with the FST in their OR.

THOUGHTS ON DEPLOYMENT

My first deployment was mostly as a general surgeon, primary care physician, and gynecologic surgeon. That experience made me a better obstetrician and gynecologist. I also think these deployments gave other surgical specialties a better view of gynecologic surgeons as surgical assets—especially the gynecologic oncologists.

My limitations were minimal in both deployments, as the goal was to provide first response, then move out of theater. Laparoscopy would have been nice, but the dusty and dirty environment in most places would make its use impractical. In Afghanistan, both the Kandahar and Bagram Role 3 facilities were brick and mortar, so scope equipment would have been useful. The biggest issues were the service back-and-forths between Landstuhl and theater. If a patient went to Germany, especially if they had to have a medical attendant, they could be gone for 2 to 4 weeks, which was a huge loss to units operating with minimal staff. Communication with Landstuhl was also difficult in general.

I felt I was adequately prepared and utilized, as I was able to function as a general medical officer, gynecologic surgeon, and general surgeon. Fortunately, in my "former life" as a Navy flight surgeon, I did a lot of primary care before completing my gynecology and obstetrics training, so I was able to fall back on that for support. I only needed to catch up on current, nongynecology medical care, which was easy enough. *I worked extensively with the general surgeons, and I learned many different surgical techniques from my surgical colleagues. I was very well prepared, and advanced trauma life support (ATLS) was critical!*

LIFE AFTER DEPLOYMENT

At the time of publication, Colonel Belson, MD, remains on active duty at Walter Reed National Military Medical Center in Bethesda, Maryland, as teaching faculty in the Department of Gynecologic Surgery and Obstetrics.

Lessons Learned . . .

Lieutenant Colonel Mark S. Ochoa, MD

- Physicians need a better understanding of how line units function and what primary or emergency medical care they expect from us.
- **Gynecologic surgeons are very valuable to the Army and can serve in many different capacities, including primary care, administrative duties, and first assistant in any surgical case.**

Colonel Gary R. Brickner, MD

- The United Service Organization (USO) is as relevant today as it was in years past, and it is a welcome respite.
- A basic and important part of being a soldier, whatever your rank, is the ability to stay focused and organized in everything you do.
- **The small things do matter: maintaining your personal appearance, keeping your uniform as neat as possible, being able to quickly pack your gear and move out at a moment's notice, and knowing where to be at what time with the appropriate equipment and the right attitude.**
- Investing in the local community reaps huge benefits.
- **If you see another soldier who needs help, extend it to them.**

Colonel Peter E. Nielsen, MD

- We have an Army full of professionals whose service is humbling—and that is why I remained in the military.
- Forging professional relationships and contacts can help you succeed in very challenging situations.
- Innovation is a *must* during deployment. Solving complex problems is most effective when it involves diverse team members who are willing to work together.
- **Principles of medical team training can be implemented successfully in a combat zone and can result in improved team member performance and confidence.**
- The unique partnership that developed between the medical elements of the DOD and State Department during my deployment may be useful for expanded capability of joint interagency coordination in the future.
- The task of transitioning medical care from the DOD to non-DOD agencies for a continued diplomatic mission in Afghanistan may benefit from using STAT through a collaborative effort within a Joint Interagency Coordination Group.
- **Implementing STAT in civilian, no-notice, disaster relief missions that require the creation of ad hoc surgical teams may be beneficial—especially because these teams often work with other government agencies.**

- **I created and used these leadership LAWS: LISTEN more and talk less. Do not assume you know, but assume you do not know and must first understand through listening. ASK what you can do for your subordinates and unit to ensure the success of the mission. WATCH what you say, how you behave, and how you appear. As a leader, your conduct and presence matter (and they are observed by everyone). SERVE your soldiers it is the heart of leadership.**

Colonel Peter G. Napolitano, MD

- TeamSTEPPS works just as well in a combat zone as it does in garrison.
- Angel Flights stay with you forever.
- Morgue duty: I never trained for it, and I will never forget it.
- **Orthopedic predeployment training should be required.**
- **Gynecologic surgeons really can fill in a number of critical combat care roles on the battlefield.**
- *I am definitely a better gynecologic surgeon from my deployment experiences.*

Colonel Jeffrey Clemons, MD

- Shorter deployments allow you to retain critical surgical skills.
- Rocks are wonderful for covering up the dirt and keeping down the dust.
- Living conditions can run the gamut from primitive to very acceptable.

Lieutenant Colonel Claude C. Perkins, MD

- **The US Army is truly one force, whether you are on active duty with the Army or in the Army Reserve or National Guard.**
- Basic hygiene practices are critical in preventing the spread of disease, and hand washing is a critical component of basic hygiene. Clean water, therefore, is essential in helping to prevent the outbreak of disease.
- Routine medical care is invaluable for developing rapport and goodwill with local populations. Helping people engenders trust, reduces communication barriers, and helps to win the hearts and minds of those we are fighting for.
- **Necessity is indeed the mother of invention. Resourcefulness, thinking outside the box, and working together can make all the difference between success and failure in the most demanding circumstances.**
- If you are a gynecologic surgeon with a positive attitude and a clean record, please consider joining us.

Colonel Jacqueline S. Thompson, MD

- Working with and treating soldiers were the most meaningful parts of the deployment. It meant so much that I quit my practice and started working in a military facility.
- **Taking care of soldiers and their family members is more than a job—it is a vocation.**

Colonel Brian Belson, MD

- Deployments significantly enhance surgical skills.
- ATLS is a critical skill set to have prior to deployment.

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CHAPTER 6

What Does the Future Hold?

“Gynecologic surgeons are one of the few specialties that regularly perform elective, urgent, and emergent open abdominal surgery and manage hemorrhage using massive transfusion protocols.”

—LTC BELINDA J. YAUGER, MD

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The evolution of the United States military and its role in major conflicts over the past century led to the growth and maturation of military medicine. The military physician has become a respected professional officer who is responsible for the provision of care in the operational environment as well as for the delivery of health care to soldiers, family members, and retirees while in garrison. The nature of current and projected combat environments, and thus the health care support mission in those environments, has constantly fluctuated. The role of the gynecologic surgeon has often been thought to be most applicable to the provision of health care for soldiers, family members, and retirees in the garrison hospital environment. As the number of active-duty women serving has increased (now to 20% of all service members), there is an expanded opportunity for gynecologic surgeons to care for female soldiers, both in garrison and downrange. *The multidisciplinary nature of gynecologic surgery training results in surgeons who can agilely fulfill multiple roles within roles within a deployed combat environment, as well as provide care in garrison.*

Gynecologic surgeons specialize in surgical treatment of the abdomen and pelvis. This training enables them to provide care for normal and complicated pregnancies, but most critical for the combat deployment mission, the surgical treatment of complex abdominal and pelvic conditions. *Due to this extensive surgical training, gynecologic surgeons are one of the few specialties that regularly perform elective, urgent, and emergent open abdominal surgery as well as manage hemorrhage that requires the implementation of massive transfusion protocols.* Those gynecologic surgeons who further train in surgical subspecialties are able to perform even more complex surgical care, including bowel and urinary tract procedures using advanced surgical techniques. With their broad skill set, the gynecologic surgeon can be utilized operationally in one of three different career management fields or areas of concentration (AOC): 60J (Gynecologic Surgeon), 62B (Field Surgeon), and 61J (General Surgeon). For example, over the past 20 years, 60J physicians have been deployed in a 60J position 35% of the time, a 62B 43% of the time, a 61J 14% of the time, and 9% in other positions.

Though deployment in multiple roles provides versatility for utilization of the unique skill set of the gynecologic surgeon, it also results in challenges. A RAND Corporation study published in 2013 looking at the experiences of physicians and other health care professionals from all AOCs deployed in Operation Iraqi Freedom and Operation Enduring Freedom noted that skills and training were concerns for both health care professionals and receiving units. Many health care professionals did not feel adequately trained for the medical role they were required to provide while operationally deployed, particularly as the skill set required may be far different from the care provided in garrison hospitals. This was especially the case for subspecialty providers who deployed in a 62B Field Surgeon position, where 20 to 30% felt poorly prepared.[1]

This concern particularly affects subspecialty-trained physicians who likely completed 6 to 10 years of additional specialized training since completing the broader education of internship, and may feel distanced from the primary care requirements of a general medical officer.

The changing nature of the operational environment makes ensuring the proper team of trained and ready medical professionals is available even more critical. While more recent conflicts in Iraq and Afghanistan have focused on counterinsurgency operations with larger fixed facilities, air superiority, and better resupply, the Army is preparing for a pendulum swing back to multi-domain operations with the potential for lack of air superiority and the provision of medical care in austere environments similar to those found in World War II. This planning requires a change of structure from the combat support hospital to field hospitals, which permits a more modular function, and, in turn, affects the skill requirements for deployed physicians.

To improve readiness, the Army is continually attempting to better delineate the necessary individual skills to ensure mission-ready personnel in support of operational units. Most recently, in 2019, this led to the development of the Individual Critical Task List (ICTL). The goal of the ICTL is to ensure continual readiness by making commanders responsible for creating the conditions for soldiers to satisfy the ICTL requirements. Primarily, the ICTL focused on a specific skill set, though basic training and education are also included. For each AOC, there are four categories or requirements: board certification, clinical privileges, training, and experience. For surgical specialties in particular, the focus of the ICTL is on operational surgical requirements, which may differ from those surgical procedures routinely performed by most surgeons while providing care in garrison. Attaining the experience and performance of the required number of technical skills (for the ICTL) may be completed through procedures performed on patients or through simulation. Formalization and implementation of the ICTL will help reduce the skills training gaps noted in the RAND Corporation report and enable continued improvement in the operational readiness of all surgeons, including gynecologic surgeons, for the multiple combat deployment roles they fill.[1]

Another effort to improve unit deployment readiness by the Army was to transition from the Professional Officer Filler System (PROFIS) to Modification Table of Organization and Equipment Assigned Provider (MAP). In the legacy PROFIS system, a physician would be assigned to Medical Command working at the medical treatment facility (MTF) but attached to a Forces Command (FORSCOM) unit for deployment. This organizational structure resulted in a lack of predictability in knowledge of when a deployment would occur as well as who would fill a particular position for deployment. Additionally, the unit and physician often had minimal interactions prior to deployment, impeding the ability to feel integrated into the unit and develop the soldier skills necessary to function seamlessly. The MAP system results in the physician's assignment to the FORSCOM unit with duty at the MTF. This change empowers the MAP physician to become familiar with and integrate into their unit more effectively as well as enables FORSCOM commanders to be more invested in ensuring that all members of the unit achieve their ICTLs and all other essential training prior to deployment.

The advent of the MAP system better enables the gynecologic surgeon to anticipate and prepare for the particular needs of their unit and position within the unit. A gynecologic surgeon in a MAP position as 62B understands that they will need to train for and meet all the ICTLs required of a Field Surgeon. While there is certainly overlap in the ICTL skill set between 62B and 60J (for example, participation in mass casualty exercises), there are also notable differences. The gynecologic surgeon has more detailed requirements for open abdominal surgery case volume as well as specific surgical procedures that a gynecologist might encounter in theater. The field surgeon has more commonly shared tasks such as performance of diagnostic peritoneal lavage and initial management of eye trauma. Gynecologic surgeons who are assigned to 61J billets are required (based on the ICTLs for a 61J) to perform a high number and broader range of surgical procedures as well as training such as the Emergency War Surgery and Combat Extremity Surgery courses.

While the ICTLs are approved and are in the Army's training system of record, oversight and implementation for attaining these skill sets remain under development. Many units are in the process of trying to better understand what ICTLs can adequately be met through garrison hospital care of patients. Other units have completed development of multiday seminars using didactic and simulation training for those physicians who most urgently need to meet the requirements due to pending deployments and assignment as MAP. Moving forward, it will be important to incorporate best practices across the Army and share valuable lessons learned to find the best methods to adequately prepare all physicians for deployment in their assigned role. Multidisciplinary clinical cooperation will be required because all training gaps will not be solved by simulation alone.

As the United States Army continues to evolve and diversify, the role of the gynecologic surgeon in the operational environment will become even more relevant, while training will need to evolve and transform to meet deployment requirements. The views and comments of deployed gynecologic surgeons described in this text illustrate the critically important role that these surgeons provided in combat deployments over the past 20 years. Comments such as "Gynecologic surgeons can fill a variety of roles on the battlefield; they are incredibly versatile" and "Procedures were performed that provided experiences that I would have never had—it has made me a better gynecologic surgeon" should be seen as opportunities to enhance the skills and training of gynecologic surgeons for deployment, which will also enhance their skills in garrison.

Deployment and garrison care, if proactively managed with the ICTL system, can be synergistically beneficial to the patient seen in garrison and the professional development of gynecologic surgeons, and they can provide essential lifesaving skills to physicians caring for soldiers injured on the battlefield. With the recent changes described here and knowledge of the experiences and lessons learned of those gynecologic surgeons who have previously deployed, we are better equipped to prepare for the anticipated future austere operational environments. This is a great opportunity for gynecologic surgeons to embrace change and continue to deliver exceptional medical and surgical care in the austere combat environment.

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GETTING TO WAR: A PERSONAL ACCOUNT

Mobilization. All deployments in the Army start with a mobilization process, and mine was no different. I flew to Fort Bliss in El Paso, Texas, so that the Army could spend several days making sure I was fit for service. The purpose was to weed out soldiers who potentially would not be effective in their assignments while deployed.

On 1 November 2004 I drove to the airport with my wife, where we said our goodbyes at the curb; I found it hard to believe I would not see her again for almost 4 months. I would not begin to grasp the enormity of what I was starting until several days later—and even then, I would not fully appreciate the effects of leaving my wife and family until after I arrived at my assignment.

The original reason for my activation was to provide medical support to elements of the New Jersey National Guard during their deployment to Iraq. However, shortly after I came on active duty, the deployment was delayed for 6 to 8 weeks. Rather than release me, the National Guard decided to deploy me to Afghanistan in support of the Indiana National Guard instead, in essentially the same role. The advantage was I would be joining a group that had already been in country 4 to 5 months and, therefore, they knew the dangers and risks associated with being in the area. The downside was that I was an outsider and a "newbie." *On balance, the former outweighed the latter.*

Transit. I flew on a commercial flight, paid for by the Army, from El Paso to Dallas, then on to Frankfurt, Germany, and the Rhein-Main Air Force Base, known as the "Gateway to Europe," for most members of the US Armed Forces. At this point, I was out of the commercial system and moved into the Military Airlift Command, or MAC. From there, I flew to an air base in Kyrgyzstan, and then on to Afghanistan.

The only part that was easy was the commercial flight portion. I was moved up to first class for the flight to Dallas by a friendly ticketing agent who informed me that military personnel flying on orders were eligible for the upgrade as a courtesy. She told me that in the past passengers had to be in uniform to

qualify, but that requirement had been dropped when the military began encouraging its members to fly in civilian clothes (to avoid drawing attention to themselves).

From Dallas I flew to Frankfurt. The Frankfurt airport bore a strong resemblance to the Newark airport and its environs in New Jersey, except the signs were in German and there was slightly more avant-garde architecture. Once there, I was out of the commercial system and moved into the MAC.

Initially, my luck was fairly good in Frankfurt. I arrived around 0800 hours, and there was a flight going out to the staging area for Afghanistan at 2200 hours (at Manas, Kyrgyzstan). I carried my three duffle bags of gear to a nearby military barracks where those in transit could get short-term billeting. I got a room for the day and caught up on sleep, reading, etc. To be sure I made the list for the flight, I lugged my three duffle bags to the terminal at 2100 hours, only to be told that the flight had "slipped" (or was delayed) and was not due to arrive until 0100 hours, and then leave at approximately 0400 hours the following morning. Given the amount of gear I had to continually move, it made no sense for me to do anything but wait at the terminal.

The terminal at Rhein-Main Air Force Base had a coffee shop that was open 23 hours a day, and more importantly—a United Service Organization (USO) lounge. Like many baby boomers, I had a vague recognition of the USO and its purpose from growing up watching World War II movies and Bob Hope's annual tours, but until you are thousands of miles from home, exhausted, alone, and en route to a strange land of uncertain safety, you cannot imagine the respite felt by seeing a friendly face and being able to sit down with a fresh cup of coffee in reasonably comfortable surroundings. That was my first direct contact with the USO, and it will stay with me forever. I was able to check and write email, search the internet, take a nap, and just relax while I was waiting to resume my journey. It was a welcomed rest after almost 24 straight hours of traveling.

It was there that I met a group of officers from the 82nd Airborne Division who were also en route to Afghanistan (as a scouting party for their division's next deployment in the near future). Airborne soldiers, or paratroopers, have the well-deserved reputation of being some of the toughest and best soldiers in the Army. As I came to know them better over the next few days, they certainly seemed that way to me. But, like many such soldiers, they instinctively knew the difference between being tough and acting tough—the difference between bravery and bravado.

A basic and important part of being a soldier (no matter what rank you are) is the ability to stay focused and organized when everything seems to be conspiring against you. The small things matter: maintaining your personal appearance, keeping your uniform as neat as possible, being able to quickly pack your

gear and move out at a moment's notice, knowing where to be and at what time with the appropriate equipment, and having the right attitude. It sounds easy, but when you are exhausted, sleeping in facilities without showers, and battling delays in the system, it is not. There is a tradition in the Army that no matter what your rank is, if you see another soldier who needs help, you help them. The guys of the 82nd went out of their way to give me advice on how to survive the transit. By their example and advice, I learned the necessary skills to navigate the military transit system more quickly than I otherwise would have on my own.

While flying, I noticed the scenery: rugged mountains, some fairly brown farmland plowed in long stretches that resembled runways, and several very small villages. We finally landed at what is now a US Air Force base. Initially my spirits rose as I surveyed the civilian airport immediately adjacent to me. It appeared to have a decent terminal, built in Soviet 1960s-style architecture and similar in some respects to the early Walt Disney hotels—but more importantly, it had an attached hotel that looked open.

After going through the usual in-processing procedures, the officers from the 82nd and I were led to the transient tent, where we were then told that there were 1,000 Marines in the camp who had priority on all outgoing flights until they were all relocated to Afghanistan. Each C-130 aircraft could transport only 56 passengers, so things were not looking good for the Army. However, on the plus side, we were on a US Air Force base—and no one has better food and amenities than the US Air Force does. The entire installation was made up of either tents or simple wooden huts in the shape of tents, and some of the former were as large as two-story buildings. One tent housed a gym complete with a full-size basketball court, and another was used as the social hall, with free soft drinks, popcorn, and light food available all day and night.

We dutifully placed our names on the roster along with the others like us who needed air transportation, and then settled in for what I thought would be several days' wait. In the meantime, I was learning to space out my activities to better fill the downtime. I'd spend an hour or so checking email and then return to my tent to read or rest, and I would stop at the transport desk periodically to check the status of flights. It was clear to me from my tour of the base that, although it had a "temporary" look, I knew we (the US forces) were going to be there for the long term, as you could see areas where more permanent buildings were being planned. The United States was working on having a major military presence in a part of the world that would have been unthinkable a decade prior. Countries most Americans have never heard of (and whose names most can barely pronounce) were going to be our new friends in a new war.

Just as I was accepting the possibility of having a prolonged stay on the base waiting for a flight, the airborne guys came to my rescue. The Army shares at least one trait with the civilian world—it pays to

have friends in high places. They apparently knew people at Fort Bragg with enough pull to get them moved up higher on the transportation list, and they added me to their party as "medical." So, after a 24-hour layover, we were given space on a C-130 heading for Bagram Air Base in Afghanistan. A crewman told us that we would be in hostile airspace for most of the flight, and because of that we should expect to feel some "evasive maneuvers," and he was not kidding. About an hour into the 2.5-hour flight, we began to go up and down and left and right. Fortunately, the heat had made me so drowsy I was only faintly aware of the gyrations. Our descent was rapid and steep because of the high mountains surrounding the base, and I expected to feel the plane suddenly impact the side of one of the mountains at any moment. Sitting in complete darkness without windows only exacerbated that fear. Then, suddenly, and completely without warning, the plane touched down fairly gently and rolled to a stop. Within minutes the rear ramp was lowered, and several rows of cargo slid down to waiting forklifts. I was then, at last, "boots on the ground."

Arrival in Afghanistan. The fact that I was in a combat zone was evident from the sight of all the military personnel everywhere (who were armed at all times) and the ubiquity of bomb shelters. Once all the administrative tasks, including a briefing on the rules of engagement, were attended to, I made arrangements for convoy transport to my final destination: Camp Phoenix, located just outside of Kabul, the capital city. One advantage of being in a war is that you rarely get an answering machine, and I was able to contact my assigned battalion S1 (personnel support officer) even though it was well past midnight. I requested them to coordinate with S4 (the supply officer) to make sure they brought me body armor and ammunition.

The following morning was bright with sunshine and it was rapidly warming up. I was able to finally get a better look at my surroundings. Bagram was a massive installation with a whirlwind of activity. Planes were landing regularly and the cargo haulers were in constant motion. The field was heavily guarded, and we were warned to stay away from perimeter area due to mine fields. The installation was almost completely surrounded by tall, barren mountains similar to those you would see in El Paso, Texas. On that day they were clearly visible, but I was warned that on most days they were lost in the haze of severe smog.

That morning, while packing my gear for the final leg of my journey, I had retrieved my weapon from its storage case where it had been under lock and key since my departure from Fort Bliss. I quickly ensured it would function properly if needed. I marveled at how quickly these maneuvers had become second nature to me in the brief time of my activation. Although I was still not used to the sight of weapons on all personnel, it would not be long before it became unremarkable and I would feel incomplete without my own sidearm.

Convoy. I met the contact from my convoy and was driven to a rendezvous point near the periphery of the camp. Along the way, we passed staging areas used by various members of the coalition, including those from South Korea and several former Eastern Bloc nations. The convoy consisted of two Humvees (one at the front, and one at the rear) armed with 50-caliber machine guns, a 5-ton lorry, and a passenger van. I was placed in the van, along with other soldiers returning to camp, and we drove in the center of the convoy. I was heartened to learn that my body armor had been brought along, because without it I wouldn't have been allowed to proceed. The convoy personnel were about equally divided between male and female soldiers, most of whom were in their early 20s.

We passed through multiple layers of security as we were leaving the air base, and then we immediately found ourselves on the main street of what looked to be a residential area once—but many of the homes had been abandoned or destroyed. Suddenly, a motorbike with a driver and passenger sped by us; they then turned around and sped by us again. I looked to see if anyone else in the van appeared alarmed over that because one of the more valuable briefings I received at Fort Bliss concerned tactics insurgents often used against convoys: to have the passenger on a motorbike lob an IED into one of the US force's vehicles. It seemed slightly unreal that I was actually in a situation where that could happen, but that did not lessen my anxiety. No one else appeared to even notice. The motor bike driver made one final pass, the passenger gave a friendly wave, and they continued on their way.

After the motorbike was gone I was able to turn my attention to the view of the street in front of me. There is a certain feeling one gets when they finally see something in person after only seeing it in pictures. (For example: "Is this really the Statue of Liberty that I am climbing?" "Am I truly at the top of the Eiffel Tower?") Somehow, they seem less real when you actually see them in person than they did as the picture you created in your mind. The street I was looking at had that quality. At first it was difficult to not think of the street as some attempt to re-create the idea of an Afghan town for the tourist market. It was all there: the Arabic writing on stucco and brick two-story buildings; the burned-out vehicles scattered everywhere; the people who were right out of central casting in their colorful but somewhat ragged costumes; the old bearded men sitting in small groups, smoking cigarettes and throwing us furtive glances; the women in burkas leading their children somewhere, usually with the father walking out in front; and the dust and the dirt all over everything. I could almost imagine I was riding on a tourist bus in a theme park. But that was a real town with real people who were living lives in conditions unimaginable to someone from a developed country. They were not paid reenactors who, at the end of the day, would remove their costumes and resume what I would describe as "normal" living.

As we continued down the main street, I became aware of how many small children there were—many would shout and wave at us while others gave us the "thumbs-up" sign. Those of us who were riding in the van did not wear hats or helmets because it was a sign of disrespect to the Afghan people. We waved back at the children, but the gulf between us could not have been wider had we inhabited different planets (and in a very real way it was as if we did).

After we drove through the town, we were on a two-lane blacktop of reasonably even grade. Civilian traffic was light and whenever there was an oncoming vehicle, the gunner in the lead Humvee would signal for them to move to the side of the road while we passed. In the same way any slower traffic in our direction would be ordered to stop. A fundamental rule in convoys is to never stop or slow down unless it's absolutely necessary.

The terrain was essentially desert, with small rocky hills visible both near and far. Behind the hills were taller mountains that stretched away to the north and eventually formed the treacherous border between Afghanistan and Pakistan—which still harbored the Taliban and Osama bin Laden himself at that time. Overall, the land was moonlike without any visible vegetation, and if you added in the burned-out vehicles (which were a regular feature), I was reminded of a Mad Max movie.

While on the road we would sometimes pass small, one-story adobe houses that resembled trailers without the charm. In many places there were walls approximately 6 feet high. Some of the walls were made of nothing more than earthen materials, while others were made of quite exquisite brickwork. Many of the walls had signs in Arabic in front of them, and I wondered whether they were nascent housing developments. The "veterans" who were riding in the van informed me that Afghans love to build walls and dig trenches around their property. In fact, it seemed that building fences was a major Afghan occupation. Even before, sometimes years before, they could afford to build any structures, an Afghani would enclose their property to prevent others from taking it away. As we got closer to Kabul, I noticed the desert was dotted with small chimneys. I learned that they were for melting rubber tires that would be used in the brick-making process for the walls.

LIEUTENANT COLONEL (P) GARY BRICKNER, MD

epilogue

AS I READ THROUGH THE INDIVIDUAL EXPERIENCES here (often with a tear in my eye), I was constantly reminded of one very important thing: why we serve. Many of the narratives provide firsthand accounts of the heroism and the sacrifices made by our sons and daughters who were put in harm's way. Many had grievous injuries, but their concern was never for themselves—but always for their battle buddy, their friends, their unit, and the mission. It was obvious how those writing their experiences had nothing but admiration and pride in these heroes. It humbled them and made them proud that they were on the front lines to serve them in their time of need. It also placed their lives at home in perspective, making them realize that problems in the United States are not nearly as dramatic as we may believe as compared to the war-torn parts of the world. It should be clear from these vignettes that gynecologic surgeons play a critical role in supporting deployed combat medical and surgical care as well as medical leadership.

Keys to the success of these surgeons are their capability to perform diverse deployment clinical skills:

- Providing outpatient care for both men and women.
- Managing acute trauma and surgical intervention for hemorrhage control.
- Acting as surgical assistants for some of the most complex surgical care performed downrange.
- Providing gynecologic surgical care for both female soldiers and civilians.
- Executing leadership at all levels: from the aid station (providing support to local operations and civilians), through medical and surgical care at forward surgical teams and combat support hospitals, to brigade and corps-level commands.

It is also clear that common threads run through the lessons learned in these vignettes:

- Nothing can prepare you for the horrors of war: massively injured soldiers, death certificates, morgue duty, and Angel Flights.
- You can't ever have too much predeployment training, including emergency department work with trauma cases, orthopedic experience (bring a textbook), organizing and practicing mass casualty scenarios, Surgical Team Assessment Training (STAT), followed by continuous intratheater training.
- Attitude, attitude, attitude! Flexibility, enthusiasm, and perspective all contribute to being a physician, officer, team player, and leader who realizes the privilege of caring for soldiers and who benefits from the experience by being better prepared throughout life as a surgeon.

- Gynecologic surgeon skills are some of the most critical in combat trauma resuscitation, to include surgical technique, hemorrhage and damage control, and surgical exposure. All are critical to success in the operating room or the emergency department; don't discount them.
- The deployed clinical experience is very broad and is location and role dependent—stretching from primary care to surgical support, to the full range of gynecologic care (and on occasion obstetric care).
- Women make up a significant portion of our fighting force and deserve the very best care gynecologic surgeons can offer.
- Pay careful attention to command and control, rating schemes, as well as staffing issues, requirements, and multidisciplinary collaboration to ensure the best possible medical operations and quality of care in support of the force.
- Care for civilians is a constant in combat operations, so prepare as much as you can for the diversity of challenges and the shortfalls that often happen in trying to deliver that care.
- The support of those left at home station is as important as any aspect of deployment operations. Pay attention to family readiness groups, email and morale phone calls, and support from home station staff supporting your deployment.
- Hurry up and wait.
- There are no atheists in foxholes.
- Be very proud of what you have accomplished! The rest of America is!

Gynecologic surgeons are a critical part of the Army Medical Department team, with one mission—to conserve the fighting strength of the United States Soldiers, Sailors, Airmen, and Marines of the world's finest military. These service members deserve the very best care that we can give them, whether in garrison or in combat. Keep up the great work!

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abbreviations and acronyms

11B	infantry
60A	operational medicine
60J	gynecologic surgeon
60K	urologist
61J	general surgeon
61K	cardiothoracic surgeon
61L	plastic surgeon
61W	peripheral vascular surgeon
62B	field surgeon
68W	combat medic specialist
ACC	acute care clinic
ACOG	American College of Obstetricians and Gynecologists
AD	armored division
AMEDD	Army Medical Department
ANA	Afghan National Army
AOC	area of concentration
AR	Army Regulation
ASMC	area support medical company
ASMB	area support medical battalion
ATLS	advanced trauma life support
BAF	Bagram Airfield
BCT	brigade combat team
BDE	brigade
BG	brigadier general
BIAP	Baghdad International Airport
BSB	brigade support battalion
CAB	combat aviation brigade
CAS	close air strikes
CAV	cavalry
CBRN	chemical, biological, radiologic, nuclear
CENTCOM	Central Command
CHS	Comprehensive Health Services, Inc.
CHUs	containerized housing units
COB	contingency operating base
COL	colonel
CONUS	continental United States
COP	combat outpost
COS	contingency operating station
CRAM	counter rocket, artillery, and mortar system
CSG	corps support group
CSH	combat support hospital
CSM	command sergeant major
CT	computerized tomography
D&C	dilation and curettage
DCCS	deputy commander for clinical services
DCN	deputy commander for nursing
DEET	N,N-Diethyl-meta-toluamide, or diethyltoluamide
DFAC	dining facility

DO	doctor of osteopathy
DOD	Department of Defense
DOS	Department of State
DSH	diplomatic support hospital
ED	emergency department
EPW	enemy prisoner of war
ER	emergency room
FAST	focused assessment with sonography for trauma
FH	field hospital
FLA	front-line ambulance
FOB	forward operating base
FORSCOM	Forces Command
FRG	family readiness group
FST	forward surgical team
HBO	Home Box Office
HQ	headquarters
ICTL	individual critical task list
ICU	intensive care unit
ID	infantry division
IDF	significant indirect fire
IED	improvised explosive device
IF	internment facility
IRAMs	improvised rocket-assisted munitions
ISIS	Islamic State of Iraq and Syria
ISR	Institute for Surgical Research
IV	intravenous
IZ	International Zone
KAFH	Kuwaiti Armed Forces Hospital
KIA	killed in action
LEEP	loop electrosurgical excision procedure
LRMC	Landstuhl Regional Medical Center
LT	lieutenant
LTC	lieutenant colonel
LTG	lieutenant general
M113	tracked armored personnel carrier
M577	tracked light armored personnel carrier, command post
MAC	Military Aircraft Command
MASCAL	mass casualty
MD	medical doctor
MEDCOM	Medical Command
MEDEVAC	medical evacuation
MNF-I	Multi-National Force – Iraq
MOPP	mission-oriented protective posture
MP	military police
MRAP	mine-resistant ambush protected vehicle
MRSA	methicillin-resistant *Staphylococcus aureus*
MS	Master of Science
MSR	main supply route
MTF	medical treatment facility
MWR	morale, welfare, and recreation
NAAD	National AMEDD Augmentation Detachment; Naval Air Ambulance Detachment

NATO	North Atlantic Treaty Organization
NGO	non-governmental organization
OBC	officer basic course
OEF	Operation Enduring Freedom
OIF	Operation Iraqi Freedom
OIR	Operation Inherent Resolve
OND	Operation New Dawn
OR	operating room
PA	physician assistant
PEEP	positive end expiratory pressure
PFC	private first class
PROFIS	Professional Officer Filler System
PT	physical training
PTSD	posttraumatic stress disorder
R&R	rest and relaxation
RC-E	Regional Command-East
RET	retired
RIP/TOA	relief in place, transition of authority
RLB	re-locatable building
SARS	severe acute respiratory syndrome
SBDE	sustainment brigade
STAT	Surgical Team Assessment Training
TC	tactical commander
TCP	traffic control point
TeamSTEPPS®	Team Strategies and Tools to Enhance Performance and Patient Safety
TF	task force
TMC	troop medical clinic
T-rats	tray-based heat and serve rations
USAID	United States Agency for International Development
USO	United Service Organization
VBC	Victory Base Complex
VBIED	vehicle-borne improvised explosive device

Map close-up of Iraq. Photograph from Getty Images, Keith Binns.

maps

MAP 1

V Corps and I Marine Expeditionary Force maneuver to Baghdad.

Reproduced from Fontenot G, Degen EJ, Tohn D, and the United States Army Operation Iraqi Freedom Study Group. The March Up-Country. *On Point: The United States Army in Operation Iraqi Freedom*. Combat Studies Institute Press; 2004:144.

MAP 2

3ID border breach scheme of maneuver.

Reproduced from Fontenot G, Degen EJ, Tohn D, and the United States Army Operation Iraqi Freedom Study Group. The Running Start. *On Point: The United States Army in Operation Iraqi Freedom*. Combat Studies Institute Press; 2004:106.

MAP 3

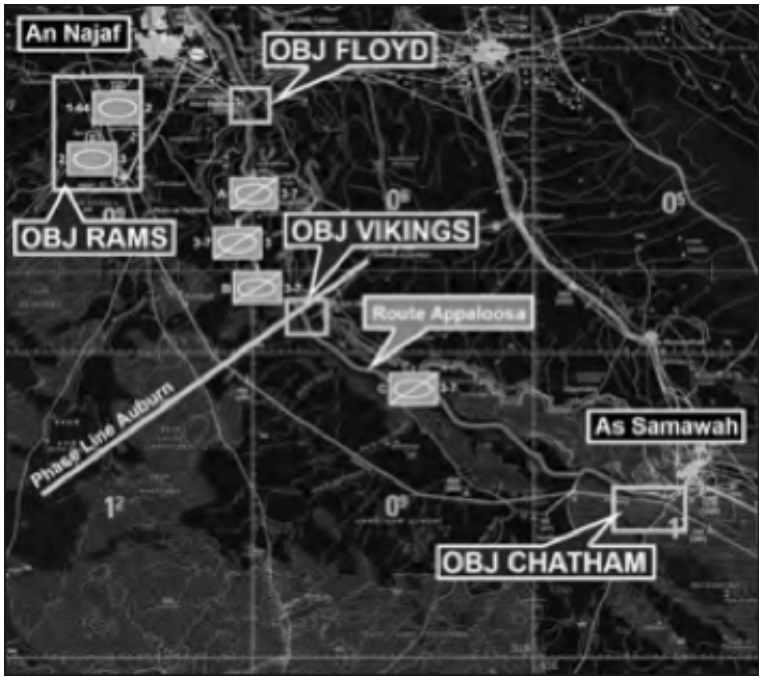
3ID attack, 20–23 March 2003.

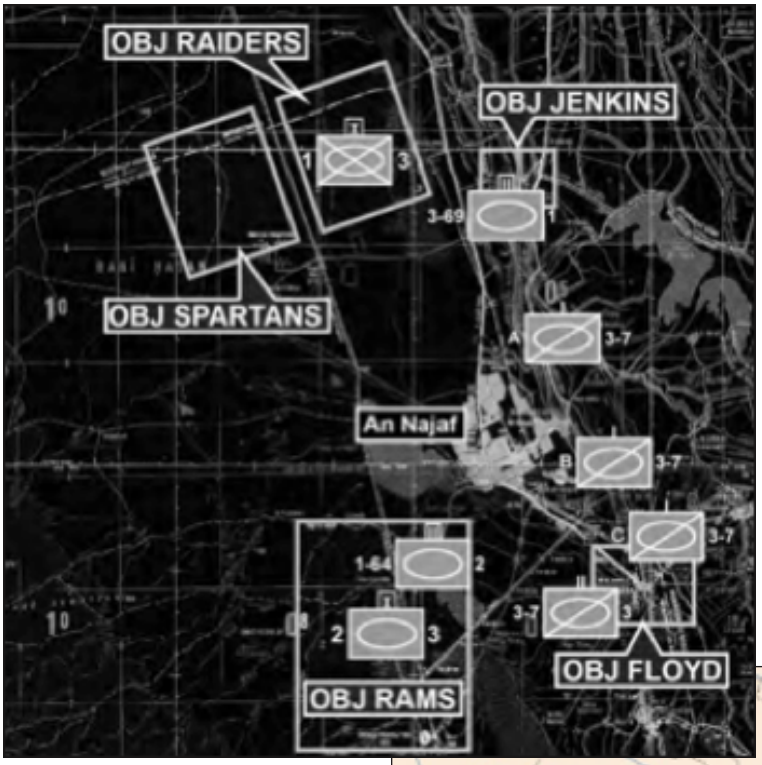
Reproduced from Fontenot G, Degen EJ, Tohn D, and the United States Army Operation Iraqi Freedom Study Group. The Running Start. *On Point: The United States Army in Operation Iraqi Freedom*. Combat Studies Institute Press; 2004:87.

MAP 4

"Running the Gauntlet." Route: Appaloosa from As Samawah to An Najaf.

Reproduced from Fontenot G, Degen EJ, Tohn D, and the United States Army Operation Iraqi Freedom Study Group. The March Up-Country. *On Point: The United States Army in Operation Iraqi Freedom*. Combat Studies Institute Press; 2004:169.





MAP 5

Force disposition around An Najaf, 25 March 2003.

Reproduced from Fontenot G, Degen EJ, Tohn D, and the United States Army Operation IRAQI FREEDOM Study Group. The March Up-Country. *On Point: The United States Army in Operation Iraqi Freedom*. Combat Studies Institute Press; 2004:204.

MAP 6

Afghanistan in 2001.

Reproduced from *The United States Army in Afghanistan Operation ENDURING FREEDOM October 2001–March 2002;2004:4-5*. https://history.army.mil/html/books/070/70-83/cmh-Pub_70-83.pdf

MAP 7

Afghanistan map showing the provinces and the Pashtun Belt.

Reproduced from *A Different Kind of War The United States Army in Operation ENDURING FREEDOM October 2001–September 2005;2010:10*. https://history.army.mil/html/bookshelves/resmat/GWOT/DifferentKindofWar.pdf

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