CPT Christopher Cordova is the 2011 Army Surgeons General Physician Assistant Recognition Award selectee. CPT Cordova received the award for his contributions to Army medicine and specifically for his contributions to the 41st Brigade Combat Team, 4th Infantry Division. For his actions during an enemy assault on FOB Keating, he was awarded the Silver Star. CPT Cordova has written an outstanding review of the mission which can be found on pages 21-25 of this edition.

The annual Surgeons General Physician Assistant Recognition Award (TSG-PARA) provides personal recognition by TSG to a PA who has made a significant contribution to military medicine. The award is intended to increase PA motivation for exceptional job performance. The program applies to all commands, agencies, installations, and activities, and organizations having PAs assigned on a full-time basis. IAW AR 351. Below is the narrative for his award recommendation.

It’s not often that I meet someone who is so positively influential that I personally feel their impact as a Brigade Surgeon, but Captain (CPT) Christopher B. Cordova continues to have a profound impact on his Squadron, our Brigade, and the United States Army. As the Physician Assistant for the 3rd Squadron, 61st Cavalry Regiment, Captain Cordova deserves the Surgeon General’s Physician Assistant Recognition Award for 2010 because of his valorous actions during wartime, his commitment to educating and training subordinate and foreign medics, his contributions to improve Army systems and doctrine in the medical community, and his desire to continually improve himself in pursuit of excellence.

In April 2010, CPT Cordova earned the Silver Star for valor, while deployed to Afghanistan in support of Operation Enduring Freedom X. General McChrystal recognized Chris for his actions during an intense, twelve-hour battle at Combat Outpost (COP) Keating. While sniper fire and rocket-propelled grenades (RPG) exploded within feet of him, CPT Cordova treated forty-three American and Afghan National Army (ANA) casualties throughout the day. When a seriously injured Soldier arrived with significant loss of bleeding and diminishing consciousness, Chris determined that a whole blood transfusion was the only way to keep the Soldier alive.
“In August, Captain Cordova was selected above peers to speak to the Committee on Tactical Combat Casualty Care about doctrine for medical care at the front lines of combat.”

With no guidance or training on a field-executed blood transfusion, Chris accomplished the task - at one point transferring his own blood - bringing the wounded Soldier back to consciousness until the medical evacuation helicopter arrived, twelve hours after the Soldier’s initial injury. When asked about Chris, his Troop Commander wrote, “Through his calm demeanor and thorough understanding of medicine, our men continued to fight because they knew they would be in good hands if they sustained injuries.”

Following the Battle of COP Keating, Chris was selected as the physician assistant for the most austere, contentious outpost in the Brigade, COP Pirtle-King. During the month of March 2010, this COP sustained more enemy attacks than any other company-size outpost in Afghanistan. With his keen insight, Chris worked quickly to rebuild and reinforce the COP’s aid station and conduct battle drills with his new team of medics to prepare for a mass casualty scenario. While improving the COP’s medical capabilities, Chris pioneered an initiative to train Afghan National Army medics by implementing a training program and incorporating them into the trauma team for Afghan casualties. This initiative inspired confidence in both the ANA medics and their patients, demonstrating a capability that the local populous had never before seen. In the months that followed, Chris was directly responsible for the treatment of approximately twenty-five US and ANA Soldiers that were traumatically injured during combat. Throughout this difficult fight, Chris earned the admiration of his subordinates and the respect of his leaders because his technical and tactical competence and judgment in the most difficult of circumstances were the best in the brigade.

During Operation Enduring Freedom, the medical platoon contained eight medics that earned valorous awards for actions under fire, each of those medics served under the tutelage of CPT Cordova.

When his unit redeployed to Fort Carson in May, CPT Cordova’s influence expanded from improving his medical platoon to improving the medical community. In August, Captain Cordova was selected above peers to speak to the Committee on Tactical Combat Casualty Care about doctrine for medical care at the front lines of combat. By sharing his combat experiences, Chris provided valuable insight into the necessity of training front-line physician assistants on the transfusion of fresh whole blood at forward deployed locations.
After taking the opportunity to improve potential training opportunities for his contemporaries, Chris began to focus on providing better care for his Soldiers. During the volatile time that followed redeployment, where the majority of the Brigade medical leadership was in transition, CPT Cordova eagerly took on the additional responsibility of Brigade Senior Physician Assistant. Chris immediately identified a seam in the transition that harbored the risk of a lapse in healthcare for his Soldiers, so he dedicated the next several weeks to create systems to mitigate the risk of loss in healthcare continuity. Captain Cordova organized a system that maintained accurate Soldier deployability status, and he implemented a tracking mechanism for transitioning Soldiers in the Disability Evaluation System (DES). Chris’ systems were so successful in ensuring appropriate care for Soldiers and situational awareness for commanders that they were adopted as the installation standard.

Chris Cordova is an exceptional physician assistant but the characteristic that separates Chris from contemporaries are his drive and enthusiasm that permeates all aspects of his life. Chris continues to contribute to the morale and welfare of injured Soldiers by dedicating personal time to raise awareness for wounded warriors. In November, Chris completed Ironman Arizona, an event consisting of a 2.4-mile swim, 112-mile bike, and 26.2-mile run, which he impressively completed in twelve hours and fifty minutes, raising awareness for wounded warriors. Additionally, Chris is assisting in creating a website to allow Ironman participants to fundraise in support of wounded warriors. Finally, due to Chris’ outstanding training methods, competence, and natural leadership ability, the Chief PA selected Chris above peers to serve as the Sports Medicine PA at West Point.

Captain Christopher Cordova deserves high consideration for this award because he risked his life for his Soldiers, personally invested himself in the development of his subordinates, and he passionately improved his professional community. Chris’s impact as a physician assistant will be felt for many years to come.
Medical Operations at Combat Outpost Keating on 3 Oct 09

By Captain Christopher Cordova

“On 3 October 2009, Soldiers of Bravo Troop, 3rd Squadron, 61st Cavalry, repelled an enemy force of 300 Anti-Afghan Forces (AAF) fighters, preserving their combat outpost and killing approximately 150 of the enemy fighters. US forces sustained eight killed in action and 22 wounded, all but three of whom returned to duty after the attack. The Soldiers distinguished themselves with conspicuous gallantry, courage, and bravery under the heavy enemy fire that surrounded them.”

-Executive Summary of AR 15-6 Investigation

Situation

In May 2009, the Soldiers of “Black Knight” Troop occupied Combat Outpost (COP) Keating. Immediately upon arrival, the danger associated with our tactical and medical situation was clearly evident. At 7,000 feet in elevation, the COP was located on the river valley floor and surrounded by high ground on all sides. The average time for a medical evacuation asset to arrive to the isolated outpost was approximately sixty minutes, with optimal conditions. In addition to the lengthy medical evacuation time, the rotary wing assets could be delayed for numerous reasons, including weather, enemy activity, and the current operations in other areas. My medical team consisted of the Aid Station NCOIC, SSG Shane Courville, the Troop senior medic, SGT Jeff Hobbs, and two platoon medics. During the attack on October 3rd, the platoon medic present was SPC Cody Floyd. Throughout the months that preceded the attack, we, the Aid Station staff, constantly rehearsed our battle drills and updated and refined our techniques for each possible course of action. While our situation was grim, the general morale of the Troop was relatively high as a result of the special camaraderie developed between all of the soldiers on COP Keating. In addition, we were constantly tested by the enemy, which led to the seamless integration of medical tasks into Black Knight Troop’s battle drills. I have no doubt that the cohesion of the unit, including the medical team’s integration into the unit, contributed to the overall success on October 3, 2009.

Initial contact

Previous engagements with local fighters typically consisted of a few rounds of indirect fire with sporadic small arms fire. It was apparent from the first moments on October 3rd that this attack was different. The enemy fighters initiated the attack at 0600 with multiple weapon systems. The outpost received coordinated incoming fire from mortar rounds, rocket-propelled grenades (RPGs), and B-10 recoilless rifle rounds. It was estimated that COP Keating was impacted with accurate indirect fire at a sustained rate of one round every fifteen seconds for the early part of the battle. In addition to the indirect fire, the enemy utilized key terrain, the Afghan National Police Station and a nearby mosque as both heavy machine gun positions and precision small arms fire. The Aid Station crew began our battle drill of preparing the Aid Station for casualties. It was clearly evident, based on the sustained rate of enemy fire, that the events of this day would exceed my experiences from previous deployments.
Medical Operations at Combat Outpost Keating on 3 Oct 09

Influx of casualties

Once the aid station was prepped and all members of the team were accounted for, I received radio traffic of a severely injured Soldier at our casualty collection point (CCP). The aid and litter teams were fully engaged resupplying ammunition resupply to remote battle positions. This necessitated the decision to send my Aid Station NCO to the CCP to assess the casualty and, if additional treatment was required, evacuate him to the aid station. Shortly after SSG Courville departed, an RPG round impacted in the entrance of the aid station, spraying the treatment area with shrapnel and wounding three Soldiers. Two of the medics, SGT Hobbs and SPC Floyd, sustained minor shrapnel wounds, while another Soldier suffered deep shrapnel wound to his calf. After assessing the wounds of Hobbs and Floyd, we placed the other wounded Soldier in a safer location to receive treatment. Moments later, SSG Courville returned with the severely wounded Soldier from the CCP.

My attention was focused solely on this Soldier’s resuscitation, as he presented with profuse bleeding from the occipital region, agonal respirations, and extreme pallor. I knew his prognosis was poor, but attempted to resuscitate him despite the outlook. SSG Courville made continuous attempts to reinforce the blood soaked dressing on the occipital region, while continued explosions impacted on and around the aid station. I started a 500 mL bag of Hextend® through a FASTI® intrasosseous infusion system, managed his airway with a King LT® supraglottic airway system, and directed SSG Courville to provide respirations with a bag valve mask after he finished applying the bulky dressing. While my attention had been focused on our critically wounded casualty, an additional seven casualties had arrived to the aid station along with our first Soldier killed in action (KIA). I assessed the pulse of our first casualty and, as I expected, our attempts to resuscitate him were ineffective. I discontinued our efforts to focus on the other casualties.

By 0645 hours, forty-five minutes into the fight, I was in the process of managing two US KIAs and the treatment of an additional seven US and Afghan Soldiers. The severity of the casualties ranged from major facial avulsion, to open abdominal wounds and deep shrapnel wounds of the extremities. While I expected the day’s events to exceed my previous experiences, at this point, the battle surpassed what I believed possible. I didn’t think the situation could worsen.

Enemy in the wire

Upon my initial arrival to COP Keating in May 2009, one of my biggest concerns about the aid station was its small size. In optimal conditions, the treatment area could hold two litter casualties. One of the early improvements made was the fortification of an area immediately outside of the aid station for overflow patients. This foresight provided an invaluable asset as we dealt with a number of casualties that exceeded our treatment capacity.
Medical Operations at Combat Outpost Keating on 3 Oct 09

Over the subsequent hours, I spent most of the time directing treatment, placing casualties in areas based on severity of wounds, and collecting patient data to update our tactical operations center (TOC). We received five additional US and Afghan wounded Soldiers and one additional US KIA during this time. As I notified the TOC of our casualty status, I was advised that the ANA had abandoned the east side of the COP and multiple enemy fighters were inside the wire. I was also notified of an additional US KIA in the mortar pit and multiple US Soldiers were unaccounted for. At this point, I notified my team of the situation and set up security positions at both entrances of the aid station.

All casualties received initial treatment and required monitoring of IV fluids and pain management. I directed one medic to monitor the casualties, but the focus of our efforts was ensuring the security of our aid station. The security of the aid station was not only essential for its occupants, it was vital for the security of the COP as we were now the eastern-most building of COP Keating’s now collapsed security perimeter. In addition to the seven US KIAs, the wounded Soldiers, and the enemy’s perimeter breach, a fire engulfed the buildings on the abandoned, eastern side of the COP. The fire slowly spread to the main buildings on the COP, and the day’s events continued to worsen.

Blood Transfusion

Around 1200 hours, a team maneuvered around the COP to re-establish security. I received radio traffic that the team located additional Soldiers at a battle position and one of them was severely wounded. At that time, we were treating an Afghan Soldier for a gunshot wound to his knee with vascular compromise. The medical team quickly achieved hemostasis with a combat application tourniquet (CAT), administered 500 mL bag of Hextend®, and placed him in our overflow area. A severely wounded US Soldier, arrived at the Aid Station, and I assessed penetrating shrapnel wounds to his lower left abdomen and left pelvic region.

This Soldier was wounded at the beginning of the battle six hours earlier. After he was wounded, another Soldier, SPC Ty Carter, ran under heavy fire, picked him up, and carried him to a nearby gun-truck. While in the gun truck, SPC Carter performed first responder treatment on this severely injured Soldier. He also had sustained a gunshot or shrapnel wound to his left upper thigh. SPC Carter placed a tourniquet on the proximal femur, preventing additional blood loss.

When he arrived to the Aid Station, there were no distal pulses in his upper or lower extremities, and his level of consciousness was diminished. His pulse rate was 150 beats per minute, taken from his carotid pulse. Over the next two hours, he received two 500 mL bags of Hextend®, one 500 mL bag of normal saline with 3 grams of Unasyn®. The tourniquet was assessed for effectiveness. His fractured left tibia and fibula were splinted.
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His wounds were dressed, his pain was managed, and hypothermia prevention was addressed. There were no changes in level of consciousness or vital signs.

Meanwhile, the fire that originated on the eastern, Afghan side of the compound now engulfed the TOC, which was located less than three meters from the Aid Station. A tree that spanned the distance had caught fire and spread to the Aid Station appeared imminent. I directed the movement of all ambulatory patients to another location and coordinated litter teams to standby for movement of the four litter patients. My Aid Station NCOIC secured a chainsaw for another Soldier to cut down the tree. While the tree was in flames, and enemy small arms fire continued to impact the area, SPC Carter successfully cut down the tree, preventing the aid station from catching fire.

After confirming the Aid Station was no longer in danger of catching fire, I reassessed the condition of the severely injured Soldier whose vital signs had not improved and his mental status was diminishing. At this time, approximately 1430 hours, I began to consider other methods of hypotensive fluid resuscitation. I confirmed with the ground commander that an air medical evacuation platform would not be available for at least five hours, as enemy forces still surrounded the COP, as well as the helicopter landing zone. A review of his identification tags revealed his blood type was A positive. Three members of the Aid Station crew also possessed the A positive blood type, including myself. Using a standard blood collection bag, I collected one unit of blood from SPC Floyd. We slowly administered the first unit of blood after obtaining IV access through his external jugular vein.

During the administration of the first bag, I closely monitored his vital signs and watched for transfusion related reactions. Shortly after the first bag was complete, his level of consciousness and his vital signs improved. He began to communicate his level of pain and his strong desire for a cigarette. His pulse dropped from 150 to 125 beats per minute, and his femoral pulse was now palpable. His improved status was reported to the chain of command, and was pushed out to the rest of the COP. The ground commander noted and reported a significant improvement of the COP's morale with this news.

However, approximately thirty minutes after a unit of blood was transfused, his level of consciousness and vital signs began to diminish. This prompted the collection and administration of another unit of whole blood. Each time the whole blood was administered, his level of consciousness and vital signs improved. Over the next five hours he received five units of whole blood from A positive donors. At 2015 hours, fourteen hours after the beginning of the attack, I was informed the first air medical evacuation platform was en route to our location and he remained in relatively good spirits.

In a day with many losses, it seemed as if his will to live provided a morale boost to the Soldiers that were still fighting on the COP. Despite our losses, his ability to survive until the arrival of the medical evacuation assets lifted all of our spirits.
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Medical evacuation

The evacuation process required three turns using UH-60 Blackhawks. The first turn evacuated the four urgent patients from COP Keating to supporting forward surgical teams (FSTs). The second and third turn evacuated four US ambulatory casualties and five Afghan ambulatory casualties respectively. After the patients were medically evacuated, we began a thorough refitting and restocking of the aid station, knowing that there was always the potential for further casualties. I eagerly awaited an update on his status. Unfortunately, the update I received was not the update I both anticipated and hoped for. Despite our best efforts, and his will to live, he succumbed to his wounds during attempted life-saving surgical intervention at Forward Operating Base Bostick.

Conclusion

At the conclusion of the fierce, twelve-hour battle, a total of forty-three US and Afghan casualties were treated. There are many medical lessons that can be learned from this event, and I encourage the audience to consider their own situation and apply lessons learned to maximize their medical preparedness. It was imperative that our team was prepared to manage multiple casualties for prolonged periods of time, due to our remote location and the limitation of our only source of medical evacuation being rotary-wing aircraft. Independent medical providers in remote locations should always be prepared to do the same. The relative success of the medical treatment on 3 October 2009, under extreme circumstances was largely due to the integration of our medical tasks into the unit’s regular battle drills. Our repeated rehearsals revealed minor flaws in our system, which led to continuous refining of our techniques. While this is not a “ground-breaking” lesson learned, it has its merits in discussion, as I firmly believe the continued rehearsals led to the readiness of the medical team at COP Keating. Finally, it is crucial to prepare for the worst-case scenario to become reality. The enemy’s ability to inflict significant damage to coalition forces in remote locations has been proven on multiple occasions. Medical teams at these locations should expect these scenarios to happen, and implement training, battle drills, and rehearsals to improve the team’s confidence in the event of a “worst-case” scenario.

The attack on FOB Keating lasted over 12 hours. Eight US soldiers were killed and 22 wounded during the massive, complex attack. Soldiers from Bravo Troop, 3rd Squadron, 61st Calvary, numbering around 80, were outnumbered nearly four-to-one. They fought heroically for each other. Their expertise and bravery prevented many more deaths. Along with CPT Cordova, many were honored for their bravery during that fateful day.