



THE PLATINUM 10

2ND BCT, 101ST AIRBORNE IMPROVES MEDICAL TRAINING TO HELP SAVE LIVES

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With the passing of conventional warfare in Operation Iraqi Freedom (OIF) I during the spring of 2003, the fight in Iraq changed dramatically. As we continue the war on terrorism, we now face an asymmetrical battlefield with a new and transformed Army. This new war generates many different challenges to both the warfighter and the medic who must save his life. Up to 90 percent of combat deaths occur on the battlefield before a casualty ever reaches a medical treatment facility (MTF). The first 10 minutes are a key determining factor in whether or not the wounded warrior will live or die. Soldiers and medics who have the proper training,

Specialist Clint Radcliffe, a medic with the 101st Airborne Division, and two Iraqi army medics apply tourniquets and field dressings to an injured Iraqi soldier.

Petty Officer 1st Class Jeremy L. Wood, USN

equipment and mind-set will vastly improve the chances for saving his life.

Medical success starts with pre-deployment medical training and the brigade surgeon section should take the lead with support from the brigade combat team (BCT) operations officer (S-3). Pre-deployment training should include a robust medical focus for every Soldier, not just the medics. Brigade should emphasize through the orders process the medical training required or ensure at a minimum that training is conducted in accordance with all training guidance. Prior to any combat deployment, it is easy for the warfighter to focus more on live-fire ranges and weapons training that require medical coverage. The benefit to medics during this coverage is often limited due to a lack of casualty play. The brigade surgeon section should offer the battalions separate medical training opportunities as well as integrating medical training with the



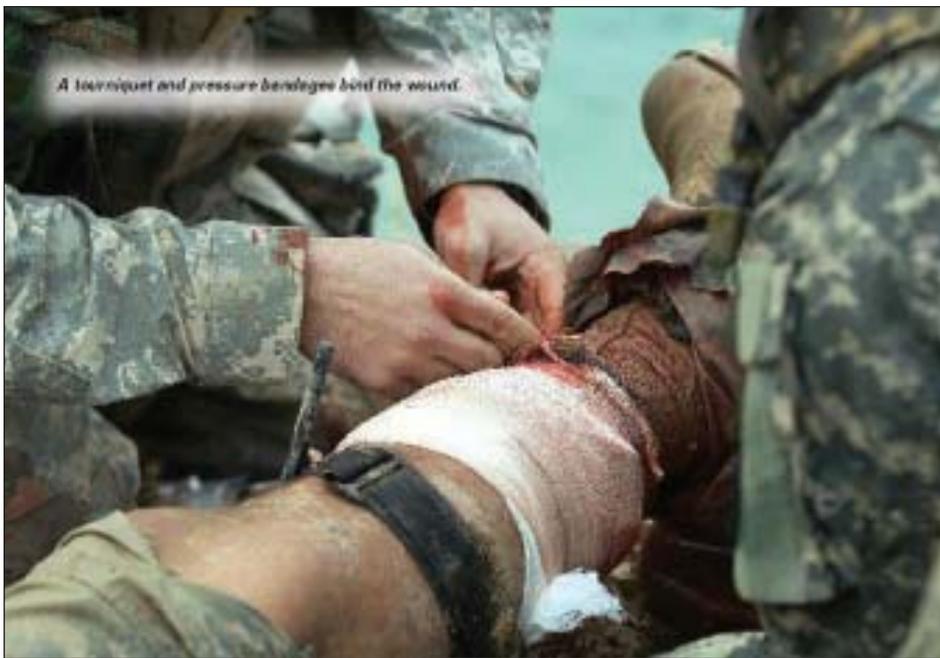


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brigade's overall train up for deployment with focus on the brigade quarterly training guidance. Time spent on medic training will build confidence in the Soldiers and save lives.

The BCT concept and transformation results in a major medical change at the BCT headquarters. The transformed BCT headquarters includes a brigade surgeon section consisting of the surgeon, medical plans and operations officer, and an NCOIC. The surgeon was previously assigned to the brigade support battalion (BSB). His placement at brigade is critical in moving the overall medical emphasis to the brigade level. Assigning the surgeon as a brigade special staff member has placed proper emphasis on the medical mission and allows the surgeon to advise the brigade commander on specific issues. The brigade medical plans officer should be involved with all brigade-level planning to ensure medical training is properly represented.

The concept of the "Golden Hour" was invented by R. Adams Cowley, an Army surgeon and father of shock trauma medicine. The Golden Hour emphasized the importance of moving an injured person to medical care as quickly as possible to an established medical facility. Recently, the Army medical community rediscovered that even more important than the Golden Hour was the first 10 minutes after a traumatic injury. The first 10 minutes is now being

called the "Platinum 10" by some and is the basis for innovative new combat medic training. The Platinum 10 asserts that a critically injured Soldier stabilized in the first 10 minutes has an excellent chance of survival provided the Soldier makes it to definitive care soon thereafter – the Golden Hour. The Golden Hour focused on getting the patient to definitive surgical care within one hour but didn't properly focus on the care given in the first 10 minutes enroute to the hospital. So what does this mean to commanders on the ground? The first 10 minutes are far more critical than getting the Soldier to the combat support hospital (CSH) first. If the bleeding is not stopped, breathing established and airway properly cleared in the first 10 minutes, it doesn't matter how quickly the Soldier gets to the CSH. This is where advanced buddy aid, combat lifesavers (CLS) and medics have the opportunity to save lives.

Tactical Combat Casualty Care (TC3) Course

The primary focus of the Platinum 10 is to stop the bleeding in the first 10 minutes. The temporary use of a tourniquet to manage life-threatening extremity bleeding is recommended. This principle is supported by the wealth of Vietnam conflict combat casualty data indicating injuries from blood loss due to extremity injuries represented the number one etiology of preventable battlefield deaths. Therefore, in the 101st Airborne Division (Air Assault), all medics must go through the Tactical Combat Casualty Care (TC3) course. This innovative program changes the traditional focus of Airway, Breathing, and Circulation (A-B-C) to Circulation, Breathing, and Airway (C-B-A). Use of the Combat Application Tourniquet (CAT) is heavily emphasized along with the use of blood loss replacement fluids like Hextend and specialized clotting agents such as Quick Clot and Hemcon dressings that clot bleeding in areas where tourniquets won't work, i.e. groin, neck, etc. The course is designed to address the primary causes of preventable deaths. It also focuses on treatment under fire in hostile areas. The training is conducted both in a classroom and under hands-on, high stress, realistic environments that involve high fidelity mannequins and pyrotechnics. Army Medical Command (MEDCOM) adopted the TC3 concept as the standard for combat medic training and fielded it as Combat Medic Advanced Skills Training, (CMAST). In addition to TC3, we sent



Photo by Dennis Steele, ARMY © 2006, AUSA

Soldiers from the 1st Battalion, 502nd Infantry treat a wounded squad member while on a patrol south of Baghdad.

several medics on a partnership program we created with the local Emergency Medical Services (EMS). The Strike Medic Ambulance Ride-along Training (SMART) program allowed medics to spend 10 or 12-hour days with the local Montgomery County EMS. This allowed our medics to gain invaluable real-life medical experience under the supervision of seasoned paramedics.

The 101st Airborne also revamped its CLS program. Its replacement, Eagle First Responder (EFR), teaches advanced first aid using the same concepts as TC3 focusing on C-B-A, using the CAT and updated triage techniques. The emphasis is to treat immediate life-threatening injuries up front and quickly. A TC3-trained medic or CLS will know that a Soldier with a traumatic amputation needs a properly placed CAT first, then an IV before being evacuated. Untreated, the casualty would have bled to death in about 5 to 10 minutes but will survive because of the emphasis on treating the life-threatening injury up front. The importance of having properly trained medics and CLS combined with an individual first aid kit (IFAK) on every Soldier has never been more important. Remember, the IFAK is only as useful as the individual using it. If all Soldiers are not properly trained on using the CAT and other items in the IFAK, the kits are useless. Proper pre-deployment and in-country medical training that focuses on the first 10 minutes will pay huge dividends and save lives.

The transformed BCT tactics today in both Iraq and Afghanistan are more similar to the Vietnam era or Special Operations Forces (SOF) tactics than to the linear battlefield we trained for over the past 30 years. Long gone are the mass assaults using multiple divisions, brigades, and battalions. Today, most operations are

company size or smaller. Currently in the 502nd Infantry Regiment, 2nd BCT, 101st Airborne Division, we average around 100 daily patrols in what is considered one of the most dangerous parts of Iraq. The area south of Baghdad between the Tigris and Euphrates Rivers not only contains the notorious “Triangle of Death,” an area between the towns of Mahmudiya, Yusafiyah, and Iskandaria that has long been known as a Sunni and Shiite hotbed, but also hundreds of miles of canals that create a web of roads and obstructions across a sprawling farming basin. These canals are paralleled by dirt and paved roads that are littered with improvised explosive devices (IEDs) and old IED craters that make any ground medical evacuation (MEDEVAC) mission an extremely hazardous operation.

Historically, this area was home to Saddam’s weapons and munitions factories. Although these factories pose little threat today, the anti-Iraqi forces (AIF) have easily recruited people from this region who have a great deal of experience working with explosives. Directional charge IEDs are becoming more frequent and recent tactics indicate the ability to adapt. With the effectiveness of the IEDs, some estimated as large as 500 pounds of explosives, we realized there were a few medical tactics, techniques, and procedures (TTPs) we needed to address and master.

Our brigade’s casualty count represented well over 50 percent of the casualties for the entire 4th Infantry Division during their

A casualty is evacuated from a forward operating base in Iraq.

Captain Dennison Segui



first eight and a half months in country. It could have been far worse. Fortunately, excellent pre-deployment training, development of in-country TTPs and world class air MEDEVAC and treatment at the CSH greatly reduced the number of fatalities during a costly second tour for the STRIKE BCT.

Medical planning centers on small units versus an overall brigade-level operation. Instead of splitting the battalion aid station (BAS) into a forward aid station (FAS) and main aid station (MAS) and leapfrogging them, smaller treatment teams are usually sent forward to support relatively static areas. These teams usually consist of the physician assistant (PA) and a few experienced medics with limited medical supplies. For larger operations, the medical platoon leader will usually accompany the battalion surgeon and co-locate with the tactical command post (TAC) or cover a section left without adequate medical coverage due to the size and nature of the operation. The BCT surgeon and medical plans officer focus on coordinating and providing resources to support battalion and below missions rather than planning for brigade-level missions.

In Iraq, air MEDEVAC has reached a level of near perfection. The process and frequencies have been standardized in theater leading to an average wheels up time of around 10 minutes. Depending upon location in theater, the aircraft is usually on scene in anywhere from 15 to 30 minutes. In our area of operations (AO), air MEDEVAC is green approximately 95 percent of the time. Air MEDEVAC does however, have some limitations — the biggest being the weather. Sandstorms are the most common cause for grounding aircraft with thunderstorms being the next most common reason. Weather conditions vary by region and season in Iraq. Our AO requires gun ship support and will occasionally launch with two MEDEVAC aircraft if gunship support is not readily available. Hasty landing zones (LZs) must be quickly and properly established. Once again, terrain constraints usually play a key role in site selection. Improperly established LZs may either delay the aircraft's arrival or jeopardize the safety of the crew or Soldiers on the ground.

Ground evacuation is challenging for



Photo courtesy of Force Protection, Inc., www.forceprotection.net

An alternative for ground evacuations may be the Cougar 4x4, which is made by Force Protection, Incorporated.

many reasons. Depending upon the area, the roads can be heavily IED laden and/or covered with craters from old IEDs, making them impassable or too narrow for tracked vehicles. The biggest challenge, however, is the lack of an adequate up-armored front line ambulance (FLA). M113s are slower than M114s, have higher maintenance needs and are fairly ineffective against many IEDs. In most cases, units usually stabilize the casualties the best they can and place them in an M114 and drive to the nearest appropriate medical facility. Twice in the STRIKE Brigade, we began evacuation by ground in an M114. When air evacuation was approved, we halted the vehicle en route. They quickly established a hasty LZ, and we directed the aircraft to their grid, quickly getting the casualties to the CSH. This is important to remember because time is always critical. A final alternative we are still researching is the use of the Cougar which is made by Force Protection, Incorporated. They are the same company that makes the Buffalo vehicle series which is used for IED route clearance. It will hold up to two litter patients without major modifications and is a very survivable and quick up-armored vehicle. Furthermore, Force Protection Inc. makes an armored ambulance version but has not been used in Multi-National Division – Baghdad (MND-B) to date.

Battle tracking during a MEDEVAC is simple when an effective and practiced

battle drill is established. The first critical step to success is having the unit on the ground call directly to the air ambulance company for “Urgent” casualties if possible. In cases where communication with the air ambulance company isn’t possible, the fewest number of people required to get the 9-line to them is crucial. Units should not be required to call 9-lines through their chain of command — this only slows down the process. Several modes of communication have simplified situational understanding greatly. WAVE Desktop Communicator allows several FM channels to be monitored simultaneously. We generally monitor our brigade command net and the MEDEVAC net. We also use an Internet Relay Chat program called mIRC which allows us to essentially instant message anyone monitoring the program. Units have individual chat rooms and each air ambulance company has a room for each location. There is also one main MEDEVAC room for the entire theater where information, updates, and 9-lines are relayed. We are also able to see aircraft launch and arrival times at LZs and the CSH.

Once the aircraft arrives at the CSH, we wait approximately 15 minutes and call for an update on patient status to the liaison officers (LNOs) provided by division. The brigade surgeon section takes the lead on this to prevent multiple phone calls asking the same questions. The brigade aviation

element (BAE) monitors the aviation frequency and helps relay communication between the unit on the ground, attack aviation and MEDEVAC aircraft as needed. Finally, unmanned aerial vehicle (UAV) coverage provides real time eyes on the scene if available and helps to paint a complete picture.

All these assets assist in the battle drill, but if not orchestrated correctly they can lead to confusion and information overload. This battle drill should be exercised in the tactical operations center (TOC) and tailored to fit the unit's individual needs.

Patient tracking is a critical and often overlooked process until the unit arrives in theater and takes its first casualty. The BCT surgeon section should take the lead in this area as the surgeon understands technical medical matters and the staff understands hospital organization. Establishing good relationships with the LNOs at nearby medical treatment facilities like the International Zone CSH, Balad Air Force Expeditionary Medical Group (EMED-G), and Landstuhl Regional Medical Center (LRMC) in Germany is critical. Patient tracking may not sound critical to the average warfighter until you realize how much time you will spend trying to find out how the injured Soldiers are doing and where they are. Prior to transformation, the medical company assumed the role of patient tracking. Our brigade surgeon section took on this responsibility for several reasons. The brigade surgeon has a direct link to the BCT commander, we have better communications, and we are resourced with more experienced and knowledgeable individuals. Some of our commanders think this is the most important function of the surgeon section. The ability to get a current status on their wounded warriors helps keep emotions in check and provides feedback to Soldiers that their teammate is OK. The BCT surgeon section should have a solid patient tracking spreadsheet that encompasses Soldiers from the last 24 hours all the way back to the U.S., including the medical hold company at

home station. Finally, someone should be responsible at the rear detachment for tracking Soldiers in medical hold and assisting with return to duty (RTD) Soldiers. Getting RTD Soldiers back in the fight requires a lot of effort at home station. It is easy for Soldiers to get lost in the medical and personnel systems if they are not tracked daily. The quicker RTD Soldiers are processed back into the fight, the better unit strength is maintained.

From pre-deployment to present day, we took measures to ensure everyone from the Soldier on the ground to the doctor at the medical company has the proper equipment and training to save our warfighters. We took the initiative to design our own Individual First Aid Kit (IFAK) pouch because the ones issued Armywide were not available prior to our deployment. Our pouch costs less money and is smaller than the issued IFAK but still contains all the critical Class VIII required. We also created our own CLS bag. At the time the one available in the Class VIII system was ineffective and more than 30 years old. We implemented standards for every vehicle to carry litters with straps, vehicle lifesaving kits and human remains bags. We often deal with deceased local nationals and enemy killed in action (KIA) as well as our own. Regardless, units need to identify special equipment and standards that are proven effective prior to deployment and continue to train on, modify and adapt them as necessary during deployment. The medical challenges in today's asymmetrical war on terror are different than in the past but can be overcome with prior planning and the proper mind-set. Combat medicine has changed — medics and combat lifesavers must be trained and equipped with the latest knowledge and tools prior to deployment. The BCT surgeon section must take the lead and educate not just medics and combat lifesavers but every Soldier and leader on TC3, air MEDEVAC procedures, and current in-country standards. Soldiers and leaders alike must also understand what the Platinum 10 means for their medical personnel, Soldiers, and mission.

Our medical system from point of injury to the hospital back in the U.S. is the best in the world. The Platinum 10 is the first event in a chain that saves Soldiers' lives. If that chain is broken, the Soldier may die. Taking the necessary steps to ensure the training and equipment to get casualties stabilized in that first 10 minutes will ensure every warfighter has the confidence to accomplish the mission and know the best battlefield medical system in the world is ready to care for them.

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Staff Sergeant Jacob N. Bailey, USAF

Soldiers unload an injured Iraqi Army soldier at the 47th Combat Support Hospital in Mosul.