

IN-THEATER mTBI RESTORATION

By Command Sgt. Maj. Scott Schroeder
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Concussive events are not new, but the military hadn't really paid much attention to these injuries until recently. When we began intensive ground combat operations, leaders did not understand the lasting impacts of concussive events — which are mostly caused by improvised explosive devices — and medical providers didn't have the experience or capacity to treat the number of Soldiers suffering from such injuries.

A report by the Armed Forces Health Surveillance Center estimates almost 96,000 Soldiers have been treated for mild traumatic brain injury, or mTBI, since 2003. For the past seven years, I have seen great advances in the way we train, track and treat Soldiers with these injuries.

I assumed my duties as a command sergeant major in November 2003 and was assigned to the 3rd Battalion, 502nd Infantry Regiment, in Mosul, Iraq. I watched Soldiers involved in concussive events continue with their normal activities. That was the expectation. As long as no physical signs of injury were present, Soldiers were returned to duty.

After our redeployment from combat, our unit was reorganized as a cavalry squadron and deployed to southwest Baghdad in October 2005. The Army had adjusted to the IED, the enemy's weapon of choice, by placing armor on our vehicles. The enemy responded by constructing IEDs with more powerful explosives.

Being in armored vehicles

caused an overpressure effect that magnified the concussive effect of blasts. At that time, we began to understand and accept that concussions were injuries which needed treatment and documentation in medical records. However, treatments were rudimentary. The Army started conducting Mild Acute Concussive Evaluation testing, but very few Soldiers suffering from concussions were evacuated to higher levels of care.

It wasn't until after a unit redeployed that leaders really saw in their Soldiers the effects of multiple exposures to concussive events. I watched as a great first sergeant, with a great amount

of potential, was forced into retirement due to injuries from his previous deployment. He had been struck by five IEDs.

After the deployment, I was assigned a new driver from the engineer company who had been involved in 12 or 13 IED blasts as part of the route-clearance platoon. I watched as this Soldier began to struggle with simple tasks at work. He also struggled to perform life skills. I saw unit leaders become frustrated with previously solid-performing Soldiers like him whose performance began to diminish, and with Soldiers who had physically limiting profiles due to treatment and medication. Even though we did not yet



Pvt. Scott Charging, center, of 3rd Squadron, 3rd Armored Cavalry Regiment, bandages another medic and Sgt. Sabrina Watts, right, fills out a mild traumatic brain injury survey card during training at the National Training Center at Fort Irwin, Calif., last May. MTBI is one of the most common battlefield injuries these medics will encounter in Iraq.

Photo by Pfc. Jennifer Spradlin

fully understand the scope of the problem, we began to see more Soldiers diagnosed with concussions. In 2005, 12,192 Soldiers were treated for mTBI, nearly doubling to 23,160 in 2007.

I deployed to Baghdad with the 2nd Brigade Combat Team, 101st Airborne Division, as the BCT command sergeant major (from August 2007 to November 2008). By this time, we better understood the effects of concussive injuries. We integrated training on protocols and treatment into our combat training center rotation and conducted leader mTBI-awareness training. The unit also conducted Automated Neuropsychological Assessment Metric testing to get a “mental baseline” prior to the deployment. We understood the possible consequences of concussions and treated Soldiers for mTBI. The installation opened an mTBI clinic in October 2008 to focus on treating these injuries. Soldiers showing symptoms were evacuated from theater; very few of these Soldiers returned. Accordingly, many Soldiers, especially leaders, involved in concussive events avoided treatment because they didn’t want to be evacuated.

In the past, the health care provider relied on the event history given by Soldiers to make their assessment. Unfortunately, in many cases, these Soldiers were rendered unconscious by the blast. Others reported blast exposures that never occurred. Without additional data to base decisions upon, the medical providers deferred to the history provided by the Soldier. These discrepancies are compounded if the Soldier’s leadership transitions soon after redeployment, because no one is available to confirm the Soldier’s account. Finally, because providers also don’t have access to a Soldier’s performance record, there is no information on a Soldier’s pre- and post-incident performance to make a comparison.

Today in Afghanistan, we are treating Soldiers right off the battlefield at BCT Level II medical facilities. The first of these facilities I visited was at Forward Operating Base Shank under the 173rd Airborne Brigade Combat Team. I was immediately impressed with the program, and we pushed to have all of our Level II facilities replicate its capability. The purpose of this facility is to get Soldiers off the battlefield and get them rest. Rest is the immediate and most important treatment for Soldiers who have been exposed to a concussive event. Going to the clinic also keeps Soldiers from going on patrols before they are ready. The effects of a successive injury are much greater if the patient hasn’t fully recovered from the previous one. Before returning to duty, patients receive comprehensive screenings and exertional testing to

ensure they are 100 percent when they return to their units.

Since January 2010, Level II facilities in Regional Command-East, Afghanistan, have treated 1,023 Soldiers. Our Level II facilities have a 98 percent return-to-duty rate. Two years ago, when we did not have this capability, a large percentage of these Soldiers would have been air-evacuated from theater.

We have also pushed for our theater to have a Level III mTBI facility at Bagram Air Field in Afghanistan. This facility allows Soldiers with more significant concussions and those who are not improving at our Level II facilities to remain in-theater for continued treatment.

The Level III mTBI facility incorporates a neurologist and neuropsychology testing, allowing us to screen Soldiers who have experienced multiple blasts in-theater without being evacuated. All care is recorded in the Medical Communications for Combat Casualty Care hardware and Armed Forces Health Longitudinal Technology Application.

Our providers have regular meetings among the Level II mTBI facilities, Level III mTBI facility and the mTBI clinic at Fort Campbell, Ky. They discuss patient’s treatments and have access to Soldiers and their leadership. There have been 25 Soldiers referred to our Level III facility at Bagram which started operation in October 2010. Our Level III facility has an 88 percent return-to-duty rate.

There are several benefits to these in-theater facilities. They work because unit leadership is confident only Soldiers needing higher levels of care are evacuated. The result of this is more Soldiers are screened and treated. With MC4 and ALTHA, Soldiers’ treatments are recorded, affecting short- and mid-term care as well as ensuring Soldiers are eligible for long-term benefits. Treating in-country reduces the stress on our already overwhelmed Physical Evaluation Board system and our Warrior

Transition Units. Finally, treatment in-theater ensures that the Soldiers remain connected to their primary source of support — the Soldiers with whom they fight.

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Level II Medical Facilities

- + Sleep (goal of 8 hours/night)
- + 1-3 day stay, can be up to 21 days
- + Persistent symptoms evacuate to Bagram Air Field, Afghanistan
- + 1023 treated w/mTBI related situation
- + 25 evacuated to Level III facilities
- + 98% return to duty, approximately 2% evacuated to Bagram
- + “Acute” demographic
- + Return-to-duty restrictions rare
- + Continuity of care: unit liaisons, RTD guidance
- + Limits load on already overwhelmed Personnel Evaluation Board System

Level III Medical Facilities

- + Sleep hygiene
- + Length of stay: 10 to 30 days; average: 13 days
- + Specialty care: neurology, neuropsychology
- + Deteriorating symptoms evacuate to Landstuhl Regional Medical Center, Germany
- + 31 patients
- + 25 return to duty (83%)
- + 3 evacuated from theater (9.6%)
- + “Chronic” demographic
- + RTD restrictions common
- + Additional care available: imaging, neuropsychology, cognitive testing, physical therapy, combat stress control and group sessions