

Training Iraqi Flight Medics

By SGT Bradley Owens

In early March 2016, at the request of the Iraqi Army, F Company, 2-238th Task Force (TF) Heavy Cav (3rd Battalion, 6 Cavalry Regiment, 1st Armored Division Combat Aviation Brigade) began working with the Iraqi Army on developing their flight medics. The student population was relatively small given that the Iraqi Army only had one dedicated aeromedical evacuation (MEDEVAC) company.

Prior to conducting the first class, the team assigned to conduct the instruction met with the Iraqi unit commander to assess their aircraft for medical capability. During this meeting, we were able to speak with one of the potential students and ask them about their operation. They were initially apprehensive to the strangers who were suddenly interested in their job and capabilities, but they were also very proud of the duty they were performing. After polite greetings, they graciously accepted us and demonstrated their aircraft and some of their medical equipment.

Though they were purchased for light scout purposes, the Iraqis had adapted several of their EC-135 helicopters for MEDEVAC. The interiors are similar



to most helicopters of the same type being used for aeromedical missions in the United States but lack most of the onboard medical components normally dedicated to that mission. The Iraqi medics adapted to that by storing aid bags on the aircraft with the equipment that they felt was needed. Since there was no onboard oxygen capability, they provided two D type oxygen cylinders stored in a hard case. The EC-135 currently does not have an external hoist installed so rescue capabilities from the aircraft are limited.

Tentative Training Plan

Despite multiple attempts by TF Heavy Cav to consult with the Iraqi medical officer responsible for the medics, he appeared to have little interest in our efforts. This initial lack of interest made it difficult to decide upon an exact curriculum. The requests from the Iraqi Army was for extremely advanced medical training and medical supplies so TF Heavy Cav decided to first provide proven combat relevant training in the form of Tactical Combat Casualty Care (TCCC). The curriculum was very similar to the U.S. Army's Combat LifeSaver Course.

Statistical data demonstrating success/failure figures pertaining to MEDEVAC missions flown in the Iraq and Afghanistan wars was omitted to avoid providing information to the wrong source. Other statistical information was limited to only what was necessary to build confidence in the materials being taught. Relevant facts included were that most casualties who die will die regardless of medical

intervention and that the number one preventable death is from massive extremity hemorrhage.

There was concern that the material would be too simplistic for the students, or that it would be complicated and cumbersome. In order to provide the best possible training, we administered a short pre-test covering some tenets of TCCC and material that would be considered rudimentary by advanced emergency medical technicians. The test proved to be a wise idea as our students were able to answer each of the questions successfully. We ascertained that they had a solid basis for pre-hospital care. We elected to continue with the plan to teach TCCC, but we also needed to provide advanced follow-on training in order to improve the students' skills.

Advanced Training Plan

As a follow on for TCCC, we needed material for the pre-hospital care of severe traumatic injuries. The Iraqis were experiencing a variety of traumatic injuries ranging from simple gunshot wounds to the extremities to complex multi-system trauma requiring ventilator management. While they had received quality basic training from their experience as ground medics, they had not remained current in pre-hospital management for these types of injuries. They were putting all of their patients on long backboards regardless of injury, constantly using large volume fluid resuscitation, and operating an auto-vent with the same settings on each patient.



To facilitate these training needs, we chose to use the National Association of Emergency Medical Technician's Pre-Hospital Trauma Life Support (PHTLS) Course. Considered to be the world's premier prehospital trauma education, the course was developed in cooperation with the American College of Surgeons to promote critical thinking in addressing multi-system trauma and provide the latest evidence-based treatment practices.

The PHTLS Course was the ideal curriculum for the mission tasked to the Iraqi flight medics.

“The fate of the wounded rests in the hands of the one who applies the first dressing (Nicholas Senn, MD)”



Sgt. Bradley Owens with Company F, 2nd Battalion, 238th Aviation Regiment, TF Heavy Cav., observes an Iraqi Aviation Medic converting a tourniquet to a dressing during an advanced prehospital trauma training exercise at Camp Taji, Iraq

It was critical that the students be provided with relevant trauma training to increase survival rates. The material in PHTLS covers a wide variety of trauma mechanisms and its effects on all the systems in the body. It also provides detailed information on the medic's approach to the casualty and his injuries as well as detailed steps for mitigation. Pathophysiological and epidemiological information found within the text helped explain the answer to the question “why” for every intervention and patient condition. Coupled with TCCC, we were able to help the students understand the priority of injuries and what effects will kill the casualties after patient transfer.

Areas of special emphasis were secondary patient assessment including hypoperfusion; chest, abdominal, and pelvic injuries; central nervous system trauma; burn management; mass casualty management; interfacility transport; and a slightly more advanced airway management than what was provided during TCCC. Some areas which could not be elaborated on due to the Iraqis lacking the equipment were monitoring and managing end tidal carbon dioxide and cardiac rhythms.

Iraqi Training History

The Iraqi soldiers who comprise the whole of their army's flight medics had varying degrees of previous medical training. The students reported that in 2009 the U.S. Army offered them training in TCCC. They did not refer to it as such, but they recognized the phases of TCCC and some of the techniques. One flight medic was a registered nurse (RN) who had received his training at Baghdad University prior to the 2003 invasion. Another soldier was a licensed practicing nurse who had also received training from Baghdad University. The remaining three soldiers had received medic training from the Iraqi Army's medic training school. Each of the students had previously served as ground medics with the Army.

The Iraqis had received limited flight training for their positions. They had been trained in pertinent aeromedicine similar to that taught to U.S. Army aircrewmembers. They had also received limited familiarization with the EC-135 and UH-1 airframes to be able to operate within them. Their training did not include pertinent aviation pathophysiology which would improve their ability to recognize medical problems during transport or to titrate various medical interventions (e.g. ventilator management, tension pneumothorax, dysbarism, etc.).

Conducting Lecture

There was a significant language barrier when working with the Iraqis, and at first, there was very little rapport. On the first day of class, the Iraqi medical officer, whom we had not met previously, joined the lecture to assess the instructors and the material being taught. After initial introductions, he revealed that he had a decent capability to speak and read English most likely due to his study of medicine. The RN of the group also spoke and read English well, but there was still a significant language barrier with the rest of the students.

It was important that we not “lose” the students by speaking down to them. It was also important politically that we teach them topics considered to be important by their superiors. Having an interactive discussion over the pre-test, which could not have been given solely as a written exam because of the language barrier, the Iraqis and the American Soldiers realized that there was common medical background which led to comradery between the two groups. In addition to the material being taught, the Iraqis were very interested in the practical experience of the instructors. Two of the instructors were practicing paramedics in the United States, and the other two were U.S. Army Healthcare Specialists with limited experience in pre-hospital care. This experience was valued among the students and provided confidence that we were providing them with quality training.

The Iraqis had limited attention for didactic lecturing not unlike most student populations. It was, therefore, important to be engaging and require participation from the students as often as possible without exhausting them physically. Practical application training proved to be extremely advantageous and was used as much as possible. The students expressed gratitude for being able to apply these skills. Occasionally, when the students claimed to be proficient at a task, both they and the instructors discovered that more practice was required. It was important to encourage them to practice even mundane tasks to ensure that they were performing them to the highest standards. The ability to



explain why a given task was rehearsed incessantly made the Iraqis feel as though their time was not being wasted.

Complex scenarios were used to test the students' absorption of material. The iterations were progressively more difficult as repetition made early concepts well known. Whenever the students began to show proficiency and anticipate the types of injuries and tasks being assessed, the scenarios were varied with different combinations of severe and minor injuries. The setting for each scenario was also varied to help reinforce the differences between point of injury care and en route care medicine.

A variety of teaching strategies were used during the entire training program. Didactic and practical training were conducted, but also used were models, pictures, videos, and pertinent references. An example of a reference would include the pain associated with descent from high altitude when attempting to explain barotitis media, and an example of a model would include using two bottles of water and drink flavoring to visually demonstrate dilutional anemia. Frequently, drawing simple diagrams while lecturing helped to engage the students as visual learners and to mitigate the monotony of lecture. At times, it was also beneficial to sit down at the same table as the students and change the social dynamic from lecturer and audience to a round table discussion. Rapport with the students helped them receive the most value from the training.

Common in emergency medical services (EMS), and most other professions, is the use of mnemonics for memorizing key bits of information. English examples include SAMPLE (signs/symptoms, allergies, medications, past illnesses, last oral intake, and events leading up to present illness/injury), AVPU (alert, voice, pain, unresponsive) and many others. None of these mnemonics are relevant to non-English speaking students and encouraging them to learn a second language and new skills is cumbersome at best. To better facilitate learning, the instructors learned a second language while the students either learned new

medical material or reinforced old ideas. New acronyms were created based on the relevant Arabic words. In English, TCCC is commonly taught as H-A-B-C (hemorrhage control, airway, breathing, circulation). An Arabic version of this methodology was "dawra al damawia (blood circulation)," "majraa al tanofosias (patent airway)," tonafos (breathing)," or "DMT" in English. Once student and teacher agreed on a given phrase, it was given an easily remembered acronym; in this case "DMT." By having the students teach their language to the instructors, it indirectly reinforced the material in their minds because they became teachers themselves (See one-do one-teach one).

Unsung Hero of the Training Program

The success of the mission was largely due in part to having a proficient and adaptive interpreter. Born a native Iraqi, our interpreter was able to explain all of the cultural variances with an insider's point of view. He was as happy to teach us about Iraqi culture as he was to learn about the medicine we were teaching. He did far more than simply relay our words from one language to another. Instead, he learned the material as it was taught and then expressed it in terms that made it relevant to the students. This included using lessons he learned as a child from his parents about growing up in a desert environment. His anecdotal stories were very useful in explaining the signs and symptoms of hypoperfusion because they very often were similar to subtle signs of dehydration commonly seen in the region such as headaches, muscles aches, blurred vision, and rapid heart rates. He became so proficient in the early material that the instructors frequently observed him teach instead of conducting the lecture themselves. Hands on training and evaluation proved that the lessons were translated well.

Exchanging Cultural Knowledge

Both the Americans and the Iraqis invested time in learning each other's culture. There was one break taken daily in which both students and instructors would drink Iraqi Chai (Cardamom tea) and occasionally enjoy sweet snacks. This facilitated building rapport



Sgt. William Dempsey, right, a medic with Company F, 2nd Battalion, 238th Aviation Regiment, TF Heavy Cav., demonstrates the placement of defibrillator pads during cardiopulmonary resuscitation training at Camp Taji, Iraq

with the students and making them invest their time and interest in the program. A kinship and esprit de corps was established between the coalition forces, and both sides felt as if they were working with brothers in arms.

The Iraqis greatly appreciated the willingness of the instructors to learn about their culture with open minds. They discussed social etiquette, cuisine, their families, medical practices, and education in Iraq just to name a few. This distinguished their American counterparts from some of the other coalition members because they were less willing to learn the Iraqi way of doing things. The instructors of this project learned as much Arabic as possible in order to make practical training more effective. Words such as "Neseef (Massive hemorrhage)" and "Tonafos (Breathing)" facilitated practicing TCCC concepts. It also allowed quicker understanding of the material by the students.

EMS across cultural boundaries

The medics serving in the Iraqi Army shared many similarities with EMS providers from the United States. Ultimately, they are compassionate members of their communities who wish



to ease suffering and administer to the sick. Each one of them would graciously put themselves at risk to save another life. The stories they shared were very similar to stories I have read, listened to, or even experienced myself while serving in EMS. They have responded to emergencies while off duty, faced violence from bystanders, been under appreciated by hospital staff, and have watched their patients succumb to their injuries regardless of interventions. They are passionate about their tradecraft and are dedicated to becoming better

practitioners of pre-hospital medicine. It is easy to imagine their stories as taking place anywhere other than Iraq. Despite geographic and cultural differences, the Iraqi army flight medics have much in common with other EMS practitioners.

Conclusion

Training the Iraqi Army flight medics was a rewarding and enlightening experience. Using a respected standard to provide a basis for instruction was integral to the success of the program and bridging cultural divides was a

vital component that helped facilitate student learning. Through teaching, it is possible to have a greater effect over an entire region. Building partnerships with others establishes mutual trust and shared interest in peaceful coexistence. Because of the realistic scenarios and reinforcement of critical skills, a greater number of lives will be saved by the hard work of these flight medics.



SGT Bradley Owens is currently assigned as a Critical Care Flight Paramedic (MOS 68WF2), C Company, 2/104th General Support Aviation Battalion. His previous assignments include Trauma Specialist, Headquarters and Headquarters Battery, 1/201st Field Artillery battalion; Evacuation Non-commissioned Officer, Headquarters and Headquarters Troop, 1/150th Armored Reconnaissance Squadron; and Flight Medic/Unit Trainer, F Company 2-238th General Support Aviation Battalion. SGT Bradley has deployed to Kuwait and Iraq in support of Operation New Dawn and Operation Spartan Shield/Operation Inherent Resolve 15-16. SGT Bradley Owens has served in the Army for eight years and is qualified in the UH-60A/L and HH-60A/L.

Acronym Reference

EMS - emergency medical services	RN - registered nurse
MEDEVAC - aeromedical evacuation	TCCC - tactical combat casualty care
PHTLS - pre-hospital trauma life support	TF - task force