Dispatch from the medical front

Preparing for Afghanistan's medical future

In January 2007, the commanding officer of the Health Service Support Unit at Kandahar Air Field, Afghanistan, shared with me his vision for improving local health care capacity. He wished to partner the Canadian-led Role 3 Multinational Medical Unit with a local US Embedded Training Team to create a collaborative program of professional education for the nearby 205th Afghan National Army Corps' medical providers. Entrusting me with this vision, he articulated his goal: to enable the local health care workforce to provide comprehensive, continuity care. This, he reasoned, would provide best for the future of Afghanistan while speeding the return of coalition medical personnel home.

Achieving this would be no easy task. Afghanistan, described in 2001 as an "unlucky country" by its future president, Mr. Hamid Karzai, is a landlocked nation of over 30 million people that borders Pakistan, Iran, China, and the former Soviet Republics of central Asia. It has been host to the armies of Alexander the Great, Genghis Khan, the British Empire, the Soviet Union, and, more recently, at the request of the Afghan government, the International Security Assistance Force. After decades of almost continual warfare, the health of the Afghan people has suffered: 250 out of 1000 children die before the age of 5 years, 1900 women die for every 100 000 live childbirths, and life expectancy is only 42 years. Top causes of adult deaths include infectious disease and trauma.

This last cause of death — trauma — is a constant reality for the 205th, so our partnership decided to begin training sessions with basic resuscitation techniques. Using some off-the-shelf simulators and some fairly low-tech, improvised partial task simulators of casting tape and foam held together by 550 cord, we focused on the initial evaluation and treatment of the battle casualty: airway assessment with attention to the use of the bag-valve mask and endotracheal tube; breathing survey with emphasis on needle decompression and chest tube placement; and circulatory appraisal with training on tourniquet placement and hypovolemic shock.

Dr. Aaron Saguil

Canadian Forces internist Maj. Paul Charlebois demonstrates how to do a needle decompression on a patient simulator.

At first, finding a mutually convenient meeting time seemed to be the greatest obstacle. The 8 to 10 enthusiastic Afghan National Army physicians and physician's assistants appeared to enjoy the material but over time it became clear that eagerness and excitement did not equate to retention and reproducibility.

What we had failed to take into account was the absoluteness with which decades of conflict and ineffective government had destroyed Afghanistan's medical infrastructure. This was, after all, a country whose health care had been under the thumb of local mujahedeen commanders until the recent transition of medical responsibility to external non-governmental organizations; a place where practitioners often try their hands on patients with as little as 2 or 3 years of semiformal training — self-directed reading followed by a year-long apprenticeship. Although recent efforts are addressing these deficiencies, it will take time for them to bear fruit.

Recognizing this, we recalibrated our efforts. We left-shifted our expectations and now work on integrating basic and clinical sciences into our topics. As an example, when leading discussions on the treatment of tension pneumothorax, we now start by describing basic thoracic anatomy, physiology, history-taking and examination before describing a pneumothorax, its complications, its differential diagnoses and eventual treatment. We are working to distill the essence of years of university preparation, medical school training, and graduate medical education into easily digestible kernels of knowledge upon which our Afghan friends will be able to build their medical future.

Over a year ago, the training started with a 2-man embedded training team, an assortment of Role 3 Multinational Medical Unit providers and a small cadre of Afghan National Army providers.

Now, the program has grown to encompass the combined medical staffs of the 205th Corps and the Kandahar Ministry of Defence Hospital; their respective Canadian Operational Mentor Liaison Team and American Embedded Training Team; and the combined Canadian, British, Dutch, Danish and US members of the Role 3 Multinational Medical Unit.

Recently, this same Afghan medical staff was faced with their first mass casualty situation. They processed 48 patients over the course of several hours under the watchful eye of their international tutors. Nine patients required chest tubes due to blast injuries and fragmentation wounds to the thorax.

They were all in the correct place and working properly. — Maj. Aaron Saguil MD and Capt. M. Terrance McCormack MD, Kandahar Air Field, Afghanistan

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