

Lessons learned from the war in Afghanistan: a commander's perspective

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As Surgeon General for the Canadian Forces (CF), I am also the commander of the Canadian Forces Health Services (CFHS), which is responsible for delivering quality health care both in Canada and on deployments around the world.

Providing health care in an operational setting is always a challenge, especially when this occurs in a hostile or combat setting with limitations posed by tactical and logistical challenges. This journal supplement will review the lessons learned by the CF medical professionals during the combat engagement in Kandahar, Afghanistan.

The CF has not been engaged in such combat intensity and casualty sustainment since the Korean War many decades ago. As such, there was limited combat medicine experience within the CFHS when the CF entered Afghanistan. In a perfect world, there would be very few lessons learned, as everything would have been anticipated and planned for in advance. In reality, this is never the case. So, was the CFHS prepared for this war or did it enter the war prepared to treat the consequences of the last war?

STRATEGIC REVIEW AND ADAPTATION TO NEW/EMERGING THREATS

With the end of the Cold War in the 1990s and the fiscal challenges of the day, the CF and CFHS were substantially reduced in capability and capacity. The inevitable deficiencies that arose were then identified through various reports on the state of military health care. This required the CF and CFHS to rebuild and adapt to the future. For the CFHS, this activity began in earnest in 2000 with a major project, called Rx2000, to rebuild the CF military health care system. The project was an omnibus change management initiative involving a large cross-section of CFHS personnel intended to completely transform the organization and address the emerging operational threats as best envisioned. Once implemented, Rx2000 would involve changes to personnel, training, competencies, equipment, organization and doctrine. It took 10 years to fully implement, and it was completed on time and under budget.

The fundamental change effected by Rx2000 was a reorientation of CFHS strategic planning to counter a different operational threat. During the Cold War era, strategic planning was directed toward providing medical support to CF members fighting in a massive all-out cataclysmic world war, with a large number of casualties. With Rx2000, CFHS planning became focused on providing medical support to CF members deployed to a more localized area of conflict. The project resulted in a shift in doctrine from providing large-scale triage-focused medical support to individualized high-intensity medical care of smaller numbers of casualties, but at a level of care comparable to that provided at a Canadian civilian tertiary-care trauma centre. Analysis of the Joint Theatre Trauma Registry demonstrated that the overall survival rate for coalition forces averaged 97% for all traumas requiring treatment at the Canadian-led field hospital. This previously unheard of survival rate from combat injuries led to the unofficial motto: "If you arrive alive, you will leave alive!" It is with great satisfaction that the CFHS was prescient to anticipate the emerging and the eventual CF engagement in Afghanistan and to be prepared to address the suffering and casualties stemming from the war.

INSTITUTING A CULTURE OF PERFORMANCE IMPROVEMENT

No planning can ever anticipate everything, so a mechanism must be put in place to ensure that evolving tactics and experiences can be rapidly captured, analyzed and processed to keep health care support relevant to operational realities. An effective process is necessary so that lessons identified can be translated into lessons learned and so that remedial action can be taken in a timely manner.

The mechanism implemented with the initiation of Rx2000 was the creation of a Standing Committee on Operational Medicine Review (SCOMR). This committee was task-tailored with a membership, including expert military clinicians, to review best practices, analyze evidence gathered in the operational theatre, suggest research and recommend solutions. The organization of the SCOMR allowed for a rapid OODA loop (observe, orient, decide and act — a concept developed by Col [Ret.] John Boyd of the US Air Force) to produce timely and actionable recommendations for implementation. According to Col Boyd, the key to success in war is to be able to create situations wherein we can make appropriate decisions more quickly than our opponent. The construct was originally a theory of achieving success in air-to-air combat, developed out of Boyd's observations on air combat between MiGs and F-86s in Korea. The premise was that the fighter pilot who completed the OODA cycle in the shortest time would prevail because his opponent would be caught responding to situations that had already changed.¹

The SCOMR has impacted greatly on how deployed care is provided. The committee has come up with a number of recommendations that have now been actioned and accomplished. Examples include everything from providing far forward surgical support to combat operations, to improved training for medical technicians to allow them to provide better care at point of injury, to the procurement of new equipment, such as portable ultrasonography machines. The SCOMR will continue to assess progress and, if necessary, formulate new recommendations to address health care delivery deficiencies associated with deployed operations.

REINVIGORATION OF PROFESSIONAL CAPABILITY ALONG THE ENTIRE CONTINUUM OF CARE

As the commander of CFHS, my job is to set the conditions for success for the front-line clinicians to be able to perform their duties; this means that they need to be well trained and have the requisite tools readily available to treat our patients. In developing this capacity and capability, I must ensure that the full spectrum of health care is available along the entire continuum of care: from prehospital, to acute, to rehabilitative care.

As I mentioned previously, the best lessons learned are those anticipated and thus avoided. Arguably, the greatest lesson anticipated and honed during the Afghan campaign

from the CF perspective has been the aggressiveness and professionalization of prehospital care and combat first aid. Having learned from previous wars and thus anticipating that fit soldiers who have been wounded in combat would be most at risk of dying from exsanguination, the CFHS made great efforts to enhance training of combat soldiers to be able to provide self and buddy aid and to greatly improve the competencies of medical technicians with realistic and advanced training to manage traumatic combat injuries. This entailed training on the use of tourniquets, intubation, field chest decompression of tension pneumothoraces, innovative fluid resuscitation strategies and early air evacuation (less than 2 hours from time of injury to the operating room, as per NATO doctrine) to a fully equipped and staffed field surgical facility. Furthermore, based on feedback from the field, we have also been quick to adopt innovative devices, including hemostatic dressings, as they have been developed.

Another complex but less visible injury sustained in combat is operational stress injury, of which posttraumatic stress disorder (PTSD) is the most prominent type. The effects of PTSD in particular have highlighted the issue of mental health in general in Canada, with the CF making tremendous strides in managing mental health disorders. Such innovations have included CFHS mental health personnel hosting consensus conferences to identify best practices in suicide prevention² and the introduction of a computer-assisted rehabilitation environment for both physical and mental health rehabilitation.³

RESPONSIBILITY AND ACCOUNTABILITY

Our achievement would not have been possible without a major reorganization of CFHS. Canada is one of only a few countries in the world where the military health services are fully under the command and control of the Surgeon General. This creates a "1 dog to kick" scenario where the holy trinity of responsibility, authority and accountability lies within 1 office. This permits clear lines of authority, responsibility and, most importantly, full accountability for outcome.

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