

Introduction to the Canadian Forces supplement on war surgery

He who would become a surgeon should join the army and follow it.
Hippocrates

Improvements in trauma care have been inextricably linked to wars. Surgical techniques and trauma systems have been refined in successive conflicts. Ambroise Paré, perhaps the first modern trauma surgeon, pioneered the use of antiseptic ointments for the treatment of gunshot wounds and the use of ligature, instead of cauterization, to control arterial bleeding.¹ Dominique-Jean Larrey, Napoleon's surgeon, addressed trauma from a systematic and organizational standpoint by introducing the concept of the "flying ambulance," the sole purpose of which was to provide rapid removal of wounded soldiers from the battlefield.¹ From his own World War II experiences, Michael DeBakey noted that wars have always promoted advances in trauma care because of the concentrated exposure of military hospitals to large numbers of injured people. Furthermore, DeBakey felt that this wartime medical experience fostered a fundamental desire to improve outcomes by improving practice.²

In July 2011, Canada ended its combat mission in Afghanistan. During our 9 years in Afghanistan, we have accomplished much, but at a significant cost. A total of 157 Canadian Forces (CF) personnel have died in the war since 2002 — the largest number for any single Canadian military mission since the Korean War.³ Among the dead were 8 CF medical technicians, who always accompanied our combat troops on patrol "outside the wire" and who were killed in action while providing medical support to them. On Remembrance Day, we reflect on the sacrifices made by CF members in this most recent and other previous conflicts. As first-hand witnesses to the sacrifices made by our brothers- and sisters-in-arms, members of the Canadian Forces Health Services (CFHS) are also reminded of our solemn responsibility to care for our wounded.

Our sense of responsibility continues to be our fundamental motivation to improve practice in order to improve outcomes for those who serve.

Compared with past conflicts, this current conflict has seen a dramatic reduction in the number of soldiers killed from combat wounds: the current case fatality rate is 8.8%, whereas the rate during World War II was 22.8%.^{2,3} Better body and vehicle armour, technology and tactics all likely contributed substantially to this improved survival rate. However, advances in prehospital- and hospital-based trauma care have also improved survival. In addition, comprehensive rehabilitative and mental health care have improved the quality of life of our wounded soldiers after they return to Canada. As this Remembrance Day passes, members of the CFHS have contributed their reflections on lessons learned during the war in Afghanistan to this supplement of the *Canadian Journal of Surgery*. We hope that our wartime experiences and lessons will be the starting point for future health care innovation that helps us continue to sustain and shield our fighting forces when they deploy on future military missions.

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References

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