

COMBAT CASUALTY CARE

Lessons Learned from OEF and OIF

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Preface

To enhance combat casualty care (CCC) pre-deployment education for all healthcare providers, this contemporary educational program was developed through the Small Business Innovative Research Program in partnership with civilian industry and the Office of the Secretary of Defense for Health Affairs. This military medicine textbook is designed to deliver CCC information that will facilitate transition from a continental United States (CONUS) or civilian practice to the combat care environment. Establishment of the Joint Theater Trauma System (JTTS) and the Joint Theater Trauma Registry (JTTR), coupled with the efforts of the authors, has resulted in the creation of the most comprehensive, evidence-based depiction of the latest advances in CCC.

Lessons learned in Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF) have been fortified with evidence-based recommendations with the intent of improving casualty care. The chapters specifically discuss differences between CCC and civilian sector care, particularly in the scheme of “echelonized” care. Overall, the educational curriculum was designed to address the leading causes of preventable death and disability in OEF and OIF. Specifically, the generalist CCC provider is presented requisite information for optimal care of US combat casualties in the first 72 to 96 hours after injury. The specialist CCC provider is afforded similar information, which is supplemented by lessons learned for definitive care of host nation patients.

These thirteen peer-reviewed and well-referenced chapters were authored by military subject matter experts with extensive hands-on experience providing CCC during the course of OEF and OIF, and were edited by an experienced team of physicians and research methodologists. Together they will provide readers with a solid understanding of the latest advances in OEF and OIF CCC. This information provides an excellent supplement to pre-deployment CCC training and education. Ideally, readers will aptly apply the newly acquired knowledge toward improving CCC.

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June 2011

Prologue

“War is Hell.” — William Tecumseh Sherman

The battlefield will challenge your medical skills, knowledge, personal courage, and perseverance. However, in the end, you and the Wounded Warrior will be better for it.

It is 0200. You are on a forward operating base in the high desert somewhere in southwest Asia. The radio in the TOC (Tactical Operations Center) crackles to life, breaking the silence of the night:

This is Whiskey ... Foxtrot ... Tango ... Niner. Inbound in six mikes with two urgent surgicals from an IED. Requesting a hot offload ... TIC in progress ... more casualties to pick up. ... Over.

Outside of the resuscitation area, over the whisper of the cold wind, you hear the whir of the rotor blades of the approaching MEDEVAC Blackhawks. Setting down on the landing zone with a deafening roar, all you can see is the static electrical discharge from the spinning rotors. Appearing from the darkness are wheeled litter carriers bearing casualties and teams of attendants racing alongside. Now, it's your turn. This is our calling, the reason we are here ... for the Warrior. The content of this book was composed for you by those who have “been in your boots.”

Similar situations have played out over 47,000 times for US military combat casualties. Survival from injury on the modern battlefield is unprecedented; the current case fatality rate is 11%. This is even more astonishing, considering the complexity of injury and evacuation of casualties through multiple levels of care across the globe. Throughout history, armed conflict has shaped advances in medicine and surgery. These conflicts are no different. However, with the progress of technology and communication, we are better able to potentiate and disseminate recent lessons learned.

The paradigm of tactical combat casualty care has dramatically altered pre-hospital management of the combat casualty. Tourniquets have saved countless lives. The novel concept of damage control resuscitation was born on these battlefields and has reduced the mortality rate of casualties requiring massive transfusion from 40% to less than 20%. The Joint Theater Trauma System (JTTS) was implemented to enhance injury care performance and to improve provider communication and dissemination of lessons learned across the vast continuum of care. Efforts of the trauma system have led to the development of more than 30 evidence-based battlefield relevant clinical practice guidelines, and decreased morbidity and mortality from combat injury.

The legacy of this conflict will not only be what we have learned, but also how rapidly we were able to disseminate, educate, and change practice on the battlefield in nearly “real-time,” and to translate many combat lessons learned into trauma care in the civilian environment. This text is a natural complement of our efforts contributing to evolution of casualty care on the battlefield.

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