

An Observational Study Assessing Completion Time and Accuracy of Completing the Tactical Combat Casualty Care Card by Combat Medic Trainees

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ABSTRACT

Introduction: Prehospital care documentation is crucial to improving battlefield care outcomes. Developed by United States Army Ranger Special Operations Combat Medics (SOCMs), the Tactical Combat Casualty Care (TCCC) is currently fielded to deployed units to record prehospital injury data. This study documents length of time and accuracy of U.S. Army Combat Medic trainees in completing the minimum preestablished required fields on the TCCC card, establishing a baseline for point-of-injury cards. **Design and Methods:** This was a prospective observational study in which U.S. Army combat medic trainees were timed while recording data on the TCCC card in both the classroom and simulated combat environment. We hypothesized that trainees could complete the TCCC card in less than 1 minute with 90% or greater accuracy. **Results:** We enrolled 728 U.S. Army Combat Medic trainees in the study during May–June 2011 at Fort Sam Houston, TX. We observed an average TCCC card completion time of less than 1 minute with greater than 90% accuracy in the unstressed classroom environment but an increase to nearly 2 minutes on average and a decrease to 85% accuracy in the simulated combat environment. **Conclusion:** Results imply that the TCCC card is well designed to quickly and accurately record prehospital combat injury information. Further investigation and future studies may compare other prehospital data collection methods with the TCCC card in terms of timely and accurate data collection.

KEYWORDS: Tactical Combat Casualty Care (TCCC), Operation Iraqi Freedom, Operation Enduring Freedom, prehospital combat documentation, Global War on Terrorism

Introduction

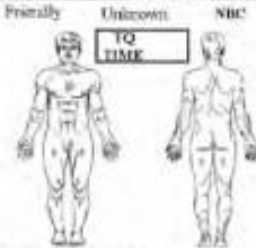
Background

The tenets of Tactical Combat Casualty Care (TCCC) were developed in 1996 for the first responder (Combat Lifesaver), combat medic, or military healthcare providers who were traditionally tasked with delivering

“TCCC is a casualty response system that relies on a mastery and immediate application of basic and vital lifesaving skills by all Soldiers.”² In 1999, the 75th Ranger Regiment provided TCCC training to all personnel assigned to their unit, whether or not medical, to improve battlefield injury survival.² At that time, the regiment developed the TCCC card (Figure 1) to improve prehospital documentation in combat and to capture data fields that were not adequately captured by the existing Field Medical Card, the DD Form 1380.

For the combat medic, providing tactical medical care in a combat environment can be complicated by several confounders, such as direct or indirect enemy fire, terrain, limited supplies, and multiple casualties.¹ In addition to rendering care in these challenging conditions, it is important that medics are able to communicate important casualty data to those receiving the casualty at the next echelon of care. Standardized communication becomes especially important when the casualty may be moved from provider to provider during his or her journey to definitive care. Furthermore, prehospital documentation is crucial to the advancement in battlefield clinical study of improving survivability by confirming and/or providing evidence needed to improve TCCC protocols and procedures.

Figure 1 The TCCC card.

Name/ID: _____		A: Intact Adjunct Cric Intubated	
DTG: _____		B: Chest Seal Needled ChestTube	
Primarily	Unconscious	C: TQ Hemostatic Packed PressureDs	
		IV IO	
		FLUIDS: NS / LR 500 1000 1500 Hextend 500 1000	
GSW BLAST MVA Other		Other: DRUGS (Type / Dose / Route): PAIN ABX OTHER	
TIME			
AVPU			
PULSE			
RESP			
BP			