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14. ABSTRACT

Initially, the primary purpose of the project was to design and implement a series of applied research studies to validate the effectiveness of a blended learning ecology in the teaching of lifesaving medical skills to U.S. Army combat military personnel. The final revision of the project included the development of a Program of Instruction (POI) for Combat Lifesaver Skills training, an Enhanced Lecture using Student Response Systems to promote the learning outcomes outlined in the POI, and e-Learning modules (eModules) to further reinforce content. Upon completion, the Enhanced Lecture was assessed to determine the impact on trainees and instructors. Assessment results for both students and instructors reflected positively upon the Enhanced Lecture. The results of this research were disseminated through conference presentations and in preparation of a scholarly research manuscript submitted for publication.

15. SUBJECT TERMS

Blended learning ecology, combat lifesaver skills, eLearning, instructional design, program of instruction

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ABBREVIATIONS AND ACRONYMS

ARL	U.S. Army Research Lab
ATACCC	Advanced Technology Applications for Combat Casualty Care
CCC	Combat Casualty Care
CLS	Combat Lifesaver Skills
COR	Contracting Officer's Representative
CPS	Classroom Performance System
ET4OL	Emerging Technologies for Online Learning
JROTC	Junior Reserve Officer Training Corps (U.S. Army)
K-12	Kindergarten through grade 12
MeTER	Medical Training Evaluation and Review
MSTCs	Medical Simulation Training Centers
POI	Program of Instruction
PRD	Personal Response Device
SRS	Student Response System
UNLV	University of Nevada, Las Vegas

INTRODUCTION

This report describes the activities that occurred under **Contract W81XWH-08-1-0451**, "Development of a P.O.I. and a Blended Learning Ecology for use in Combat Lifesaver Skills Training for the Army." The intent of project tasks was to enhance instruction of combat lifesaver skills (CLS) to active and reserve Army personnel. Through this project, the University of Nevada, Las Vegas (UNLV) developed selected technologies, and adapted them to and assessed their effectiveness in the U.S. Army training environment. The specific focus area was CLS training, which occurs in a non-traditional, classroom-learning environment. The project assessed whether an integrated learning environment making use of PRDs would improve student learning and satisfaction in CLS training. Two eLearning Modules or "eModules" were developed in this project to determine whether these technologies would benefit the structured learning environment of the U.S. Army.

BODY

PROJECT SIGNIFICANCE

As technology emerges and the learning environment evolves, numerous new tools have become available to increase learning outcomes and student satisfaction. Among these, Student Response Systems (SRS) such as Personal Response Devices (PRDs) have demonstrated success in terms of engagement (e.g., Caldwell, 2007; Hall, Collier, Thomas, and Hilgers, 2005) student satisfaction (e.g., Byrd, Coleman, and Werneth, 2004; Johnson, 2005; Lowery, 2005), and performance (e.g., Edens, 2009; Poulis, Massen, Robens and Gilbert, 1998; Ribbens, 2007) in an array of venues. PRDs ("clickers") are electronic devices through which members of an audience (students or trainees) respond to instruction in real-time by answering questions posed to them periodically during the lecture; software associated with the system aggregates all responses providing instantaneous feedback to the instructor (and to the audience if the results are projected on a screen). In the college classroom, PRDs have been shown to be beneficial to learning in a variety of disciplines. The majority of PRD research has been carried out in the science-education arena, but research studies have also been conducted in the educational fields of medicine, mathematics, business, social science, and more (Kay and LeSage, 2009). PRD use is also widespread at the K-12 level. Although much more comprehensive research is available regarding PRD application in higher education, a survey of K-12 teachers provided evidence that K-12 teachers employ many of the same techniques that make PRDs effective in higher education (Penuel, Boscardin, Masyn, and Crawford, 2007).

Research on the impact of PRDs has grown substantially in the 2000s, but this growth has not been evenly distributed across all educational settings. A recent review of the literature by Kay and LeSage (2009) noted a lack of PRD research outside of higher education and mathematics/science-based courses, and that conducting this research would help provide a fuller understanding of the impact of this tool. As part of this project, a research study was performed to determine whether the effectiveness of PRDs would extend to a structured educational setting outside of higher education: an Army training course. PRDs are currently used in a variety of military trainings, such as in Army JROTC instruction (WIDS Wire, 2010), Navy Submarine Training, and Air Force Medical Training (eInstruction, 2011).

However, evidence of PRD effectiveness in military settings is not readily available in the published literature.

PROJECT HISTORY AND DEVELOPMENT

Over the lifespan of this award, changes in project scope and intent occurred. According to Quarterly Report July 18, 2009 – November 3, 2009, the originally stated project called for the UNLV project team to:

> *"…conduct a large N classical experimental study, featuring random selection and assignment of subjects, on site at Ft Sam in which we proposed to directly compare the effectiveness of a pedagogically enriched and highly interactive blended learning ecology with the primarily face to face instruction currently used to train combat medical personnel. We proposed to assess the relative effectiveness of the two training strategies using a number of dependent measures, most notably the pass rate on the National Registry of Emergency Medical Technicians Certification Exam—the DMCT's principle measure for assessing the effectiveness of its efforts to teach emergency medical skills to combat medic trainees."* (1st Quarterly Report)

However, due in part to the infeasibility of the original concept, which was determined following project initiation and to factors beyond the project's control, including the unfortunate passing away of two key project principals and the resultant personnel changes that ensued, the ultimate scope and Statement of Work evolved throughout the life of the project. The following scope was proposed based on meetings that took place in June 2009 and November 2010:

(1) Create a "Universal" Program of Instruction (POI) by blending the three following documents:
- Instructor's Manual
- Student Manual
- Test Guide

(2) Using POI, develop a curriculum tailored to Fort Indiantown Gap and Medical Simulation Training Centers (MSTCs). This curriculum should include instructor materials, student materials, etc.
- Update PowerPoint slides
- Integrate Personal Response Systems
- Include student motivation modules

(3) Incorporate two eModules into the above curriculum that would be optional for instructor use. These modules will focus on:
- Patient Assessment (Lesson 2 in the current instruction manual)
- Control Bleeding (Lesson 5 in the current instruction manual)

(4) Discuss possible ways to field test and evaluate curriculum using the following measurements:
- Average passing scores on written tests
- Instructor feedback
- Personal Response Systems (PRS) data

- Student Feedback (4th Quarterly Report)

(5) In November 2010, a 'No Cost Extension' was submitted to include the objectives of disseminating research results through conference attendance and preparation of a research article, as well as the development of the proposed eModules, and final dissemination of deliverables to appropriate departments (10th Quarterly Report).

PROJECT STAFF AND TERM OF EMPLOYMENT

Position	Employee	Term
Primary Investigator	Dr. Richard C. Lee	July 19, 2008 – May, 2009 (deceased)
	Dr. Beatrice C. Babbitt	May 2009 – October, 2011
Project Director of Operations	Col. (ret) Jerry Bussell	July, 2008 – October, 2010 (deceased)
TATRC Contracting Office Representative	Gene Wiehagan	July, 2008 – July, 2010
	Major Thomas Talbot	August, 2010 – July, 2011
	Manja Lenkin	July, 2011 – October, 2011
Project Assistant	Brett Bolton	July, 2008 – December, 2009
	David Nguyen	December, 2009 – July, 2010
	Gordon Louie	July, 2010 – July, 2011
Research Specialist	Dr. Angelina Hill	July, 2009 – October, 2011
Graduate Assistants	Gordon Louie	July, 2009 – July, 2010
	Amanda Tarquino	July, 2009 – July, 2010
	Patricia Harrison	July, 2011 – October, 2011
Distance Ed. Design Team	Staff	July, 2009 – July, 2011

PART 1 | PROGRAM OF INSTRUCTION (POI)

The POI is a document detailing lesson objectives and resources for a specific training course. At the time this award was initiated, a standardized POI did not exist for the Combat Lifesaving Skills (CLS) training. This project's objective to implement an Enhanced Learning curriculum became contingent upon the development of an updated POI, and, therefore, the project's scope was revised to include development and implementation of said POI (3rd Quarterly Report). The revised POI, a 39-page document, was developed and included an integration of the objectives included in the "Instructor's Manual," "Student Manual," and "Test Guide" as specified by the Statement of Work. The required

resources were defined with the assistance of the Fort Indiantown Gap instructional staff. [**See Appendix A**].

PART 2 | DEVELOP CURRICULUM

This portion of the project focused on the development of a curriculum tailored to Fort Indiantown Gap and Medical Simulation Training Centers (MSTCs). Upon completion of the POI, UNLV revised and developed instructor support materials and student materials, and involved updating PowerPoint slides, integrating SRS technology, and included student motivation modules. This effort resulted in a training product titled "Enhanced Lecture," which is described below.

ENHANCED LECTURE – BETA VERSION

An Enhanced Lecture (Beta version) involved presenting a lecture using PowerPoint slides that were designed to be used in combination with eInstruction® Classroom Performance System (CPS). The CPS includes both software and hardware and requires students to interact with the lecture using a handheld PRD. The Enhanced Lecture included applicable training content incorporated into PowerPoint slides. At strategic points in lecture, a question would be posed. Within the CPS software, the instructor clicked at specific locations to launch each question, upon which students indicated their responses with their PRDs. When all responses were returned, or an allotted period of time expired, the question would be closed for additional responses and the instructor and students would be presented with a graphic representation of the students' responses.

The Beta version of the Enhanced Lecture for CLS training, delivered by PowerPoint presentation, included training covering 10 lessons, with an average of 7.6 questions per unit. [**See Appendix B**].

ENHANCED LECTURE – FINAL VERSION

In June 2011, Dr. Steve Huff (Interactive Learning; Lakewood CO) and his team were contracted to provide customized curriculum development for ten Combat Casualty Care (CCC) lessons. Their first task was to reintegrate the presentation materials with eInstruction® technologies that have changed and developed over the course of the contract, including software upgrades and improvements to the SRS. Secondly, they were asked to refine the presentation using relevant cognitive principles. In particular, they added new questions and updated existing ones to encourage higher-level critical thinking, incorporated animation and chunking to support understanding and recall, and incorporated optional vocabulary and assessment features

The Final version includes features not present in the Beta version. Notably, the content has been reviewed and revised in regard to quality of content, consistency of formatting, division of content by lesson, integration with PowerPoint slides, and development of vocabulary, exercise problems, and exam sections. In addition, the content has been published to CD format to ensure compatibility and integrity when implemented. [**See Appendix C**].

PART 3 | EMODULES

The UNLV team produced two eModules to further demonstrate a blended learning ecology for the CLS curriculum and represent an alternative learning tool for mastering CLS content. Through consultation with content experts at Fort Indiantown Gap (PA), it was decided that the eModules should focus on two critical curricular content areas: patient assessment and bleeding control.

The eModules were designed as self-paced, digital learning modules for soldiers. Design and development of the electronic interactives distributed throughout the eModules required significant personnel time to ensure CLS concepts were best illustrated, that relevant learning principles were clear, and that the interactive potential of electronic media was fully realized. Hence, numerous iterations of the interactives were reviewed and refined until they met project standards and objectives. Dr. Bea Babbitt (UNLV, Principal Investigator); Dr. Angelina Hill (UNLV, Research Specialist); and Gordon Louie(UNLV, Program Support) developed the modules. The UNLV Distance Education Instructional Design Team designed and programmed the modules. The Pennsylvania Army National Guard Medical Operations Instructional Team at Fort Indiantown Gap (PA) provided content expertise.

Following completion of all revisions (May 2011), the final eModules were reproduced on CD (June 2011). UNLV delivered one hundred fifty CDs to Cpt. Adam Bickford, Pennsylvania Army National Guard Medical Operations Unit, Fort Indiantown Gap (PA)(12th Quarterly Report). [**See Appendix D**].

PART 4 | ASSESSMENT OF ENHANCED LECTURE

This portion of the project tested the effectiveness of SRS integration into a 5-day CLS training course given to three cohorts of trainees at a National Guard Training Center at Fort Indiantown Gap (PA). The study involved 117 soldiers: sixty-two had never taken a CLS training course before, and the other 52 had taken the course at least once previously. Five experienced CLS training course instructors also participated in the study. The course proceeded with delivery of the Enhanced Lecture and use of the PRDs. Trainees and instructors were surveyed following the experience. [See **Appendices E and F** for survey forms]. In addition to conducting surveys, student performance was also evaluated by comparing results of the standard exam that accompanies all Combat Lifesaver courses. Trainees reported that they were more engaged and had a better understanding of how well they understood the material because of the PRDs. Trainees who had previously taken the course without PRDs reported a preference for the training with PRDs in terms of being more engaged, learning more, and enjoying the course more. No improvement in performance was detected when comparing final exam scores in these courses to prior courses that did not use PRDs. Instructors appeared to see benefits afforded to their students, but they also found the course more challenging to teach, highlighting the need for adequate training to use the new technology, and care taken to developing effective questions. Complete research project details including the statistical results of this study are described within a manuscript submitted for scholarly publication. [See **Appendix I**].

PART 5 | PRESENTATIONS

The UNLV team traveled to San Jose, California in mid-July for the 2011 Sloan-C Fourth International Conference on Emerging Technologies for Online Learning (ET4OL). Project research on the effects of

incorporating SRS into CLS training was shared in a presentation titled "Enhancing an Army Training Course with Technology: Impact on Trainees and Instructors." As trainee and instructor satisfaction and performance effects were described during the presentation, the presenters incorporated the SRS into the presentation to illustrate its use. The presentation was well received; the audience was interested in the technology itself, the instructional learning curve, and the positive research results. [**See Appendix G**].

In August 2011, Dr. Babbitt and UNLV graduate assistant Patricia Harrison travelled to the Advanced Technology Applications for Combat Casualty Care (ATACCC) 2011 Conference (Ft. Lauderdale, FL) to present a poster detailing the project's research findings. The poster, titled "Integrating New Technologies into CCC: Impact on Trainers and Instructors" was displayed for two hours and educated conference attendees on both the research preformed and its outcomes. The presentation incorporated the use of the SRS to engage conference attendees and increase awareness of the technology and its implementation. [**See Appendix H**].

As stated above, the complete research project details including the statistical results of the assessment are described within a manuscript submitted for scholarly publication. [See **Appendix I**].

KEY RESEARCH ACCOMPLISHMENTS

- Tested the effectiveness of integrating Student Response Systems in a Combat Lifesaver training course at Fort Indiantown Gap (PA).

REPORTABLE OUTCOMES

- Program of Instruction (POI) for Combat Lifesaver [See **Appendix A**]
- Enhanced Lecture PowerPoint (Beta Version) [See **Appendix B**]
- Enhanced Lecture PowerPoint (Final Version) with CPS Integration [See **Appendix C**]
- eModules [See **Appendix D**]
  Developed and published two eLearning Modules (eModules) for Combat Lifesaver Training:
  - Lesson 1: Patient Assessment
  - Lesson 2: Bleeding Control
- Presentation of Research:
  - Babbitt, B. C., Hill, A., & Louie, G. (2011, July). "Enhancing an Army Training Course with Technology: Impact on Trainees and Instructors." Presented at SLOAN-C Emerging Technologies For Online Technologies Conference, San Jose, CA.

  [See **Appendix G**]

- Babbitt, B. C., Hill, A., Louie, G., & Harrison, P. L. (2011, June). "Integrating New Technologies into CCC: Impact on Trainees and Instructors." Poster Presented at ATACCC Conference, Ft. Lauderdale, FL.

  [See **Appendix H**]

- Hill, A., & Babbitt, B. C. (submitted for publication, 2011). "Examining the Efficacy of Personal Response Devices in Army Training."

  [See **Appendix I**]

CONCLUSION

As described in previous sections and as shown within the included attachments, this project resulted in the successful development of products designed to create a blended learning ecology for CLS training: a revised CLS Training Course POI; ten Enhanced Lectures and complementary course materials; and two eModules. In addition, formal assessment was conducted, **indicating trainees were more engaged and had a better understanding of how well they understood the material.** These outcomes have been presented and submitted for publication within the scholarly literature.

RECOMMENDED NEXT STEPS

The final version of the Enhanced Lecture PowerPoint should be fully assessed to reinforce (or dispute) the previous research results. Should the evidence support the effectiveness of the Enhanced Lecture, the curriculum would be well suited, and should be fully implemented, to CLS programs across the Army National Guard and other military training. Furthermore, the eModules should also be subjected to the same type of testing and evaluation process as the Enhanced Lecture to determine their effectiveness in achieving CLS learning outcomes among students.

Instructor training is a key prerequisite for the effective use of the SRS. Instructors must become familiar with software operation and trouble shooting. More importantly, instructor training in new pedagogies to capitalize on the learning that takes place when students actively interact with content while using PRDs will be required.

FUTURE IMPLICATIONS

This project may complement other research currently being conducted in the U.S. Army medical training field. At the ATACCC 2011 Conference in Ft. Lauderdale, the UNLV team became familiar with the Medical Training Evaluation and Review (MeTER) System, sponsored by the U.S. Army Research Lab (ARL). This system is a multi-platform "training assessment/learning management tool for U.S. Army Medical Simulation Training Centers (IVR, Inc., 2011)." The SRS system evaluated as part of this project is shown to improve trainee and instructor satisfaction, and could integrate with the MeTER system as a further step to improve the overall effectiveness of CLS training.

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Babbitt, B. C., Hill, A., Louie, G., & Harrison, P. L. (2011, June). *"Integrating New Technologies into CCC: Impact on Trainees and Instructors."* Poster Presented at ATACCC Conference, Ft. Lauderdale, FL.

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Appendix A
Program of Instruction for Combat Lifesaver

Program of Instruction

For

Combat Lifesaver

Length:

1 Week

Proponent:

Date:

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Preface Page

Course Summary

Academic Time:

Lesson 1: Introduction to the Combat Lifesaver
And Tactical Combat Casualty Care

Lesson 2: Care Under Fire

Lesson 3: Tactical Field Care

Lesson 4: Controlling Bleeding

Lesson 5: Opening and Managing a Casualty's Airway

Lesson 6: Treating Penetrating Chest Trauma

Lesson 7: Initiating a Field Medical Card or Tactical Combat
Casualty Care Card

Lesson 8: Requesting Medical Evacuation

Lesson 9: Tactical Casualty Movement

Lesson 10: Evacuating a Casualty Using a Litter

Administrative Time:

Graduation

In-Processing

Out-Processing

Total:

Grand Total:

Training Module

Lesson Id/ Version	Technique of Delivery	Hours	Method of Instruction
1 / C	(GP) Large Group Instruction		

Introduction:	0.1	(LE) Lecture
	0.1	(LE) Lecture
	0.2	(DM) Demonstration-Contents of the Aid Bag
	0.4	(LE) Lecture
	0.1	(DM) Demonstration-Extremities
	0.4	(DM) Demonstration-Apply Field Dressing
	0.2	(LE) Lecture
	0.5	(DM) Demonstration-Combat Pill Pack
	0.2	(LE) Lecture
Summary:	0.2	(LE) Lecture
Total	2.4	

Security Clearance: Unclassified

Lesson Title: Introduction to the Combat Lifesaver and Tactical Combat Casualty Care.

Action Text: Tactically manage a casualty.

Condition: Given a written situation concerning tactical combat casualty care and possible responses.

Standard: Select the correct response based upon instruction given in Subcourse IS0871.

Remarks: This lesson introduces the soldier to the role of the combat lifesaver. This includes an introduction to the Army battle doctrine, a lecture on the purpose of the combat lifesaver, and a lecture/demonstration on the use of the combat lifesaver's aid bag. The lesson will also provide statistical information on battlefield deaths before discussing the phases of tactical combat casualty care. The lesson then concludes by providing a list of terminology which may be unfamiliar to the soldier but will be used throughout the course; this is coupled with multiple demonstrations to ensure full comprehension. The soldier should leave with the knowledge that most battlefield deaths cannot be prevented. However, deaths from bleeding from the limbs, airway problems, and tension pneumothorax can usually be prevented.

Lesson Id/ Version	Technique of Delivery	Hours	Method of Instruction
2 / C	(GP) Large Group Instruction		

Introduction:	0.2	(LE) Lecture
	0.4	(LE) Lecture
	0.4	(DM) Demonstration-Quick Application of CAT
	0.2	(LE) Lecture
	0.1	(DM) Demonstration-Check Casualty for Responsiveness
	0.5	(LE) Lecture
Summary:	0.2	(LE) Lecture
Total	2.0	

Security Clearance: Unclassified

Lesson Title: Care Under Fire

Action Text: Tactically manage a simulated casualty in a care under fire situation.

Condition: Given a written situation concerning a casualty under combat conditions and possible responses.

Standard: Select the correct response based upon instruction given in Subcourse IS0871.

Remarks: This lesson is an in-depth discussion on the first part of tactical combat casualty care: care under fire. In this scenario, the combat lifesaver must demonstrate well-planned actions to provide casualty care while in the midst of an attack. The soldier is taught precautionary measures ranging from when to return fire and how to approach a casualty to checking for responsiveness and consciousness before applying aid. The main emphasis of this lesson is to reinforce the focal point of Lesson 1, that bleeding from the extremities is the primary cause of battlefield deaths, and while the combat lifesaver's job is to prevent these deaths, he must remember to exercise caution when confronted with enemy fire. The lesson then introduces the soldier to basic concepts of tactical field care under fire before concluding with basic instructions on preparing casualty evacuation. The soldier should leave knowing the utmost importance of planning one's movements while understanding the priority of defensive and counter-attack measures in a firefight in relation to treating casualties under fire.

Lesson Id/ Version	Technique of Delivery	Hours	Method of Instruction
3 / C	(GP) Large Group Instruction		

Introduction:	0.1	(LE) Lecture
	0.4	(LE) Lecture
	0.3	(DM) Demonstration-Turn Casualty on His Back
	0.5	(LE) Lecture
	0.5	(DM) Demonstration-Apply Splint to Fractured Thigh
	0.5	(DM) Demonstration-Apply Splint to Fractured Forearm
	0.6	(LE) Lecture
	0.5	(DM) Demonstration- Place Casualty in Shock Position
	0.2	(DM) Demonstration-Place Casualty in Recovery Position
	0.4	(LE) Lecture
	0.4	(DM) Demonstration-Evacuate Casualty w/ Standard Litter
Summary:	0.4	(LE) Lecture
Total	6.6	

Security Clearance: Unclassified

Lesson Title: Tactical Field Care

Action Text: Tactically manage a simulated casualty in a tactical field care situation.

Condition: Given a written situation concerning a casualty and possible responses.

Standard: Select the correct response based upon instruction given in Subcourse IS0871.

Remarks: This lesson provides the soldier with a general outline of tactical field care when not in a care under fire scenario. Caution and procedures learned from the previous lesson are explained and reviewed. In addition, the soldier will learn more intricate procedures (ones which are usually not timely for application when under fire) such as treating fractures, applying splints, and treating shock through multiple demonstrations. With an explanation and demonstration on the use of a standard litter, the lesson concludes and, coupled with the previous lesson, the soldier should leave with the complete knowledge of what and how a procedure is applicable at certain times of tactical combat casualty care.

Lesson Id/ Version	Technique of Delivery	Hours	Method of Instruction
4 / C	(GP) Large Group Instruction		

Introduction:	0.3	(LE) Lecture
	0.5	(DM) Demonstration-Apply an Emergency Bandage
	0.5	(PE) Student Practice
	0.4	(LE) Lecture
	0.4	(DM) Demonstration-Apply Combat Gauze
	0.2	(LE) Lecture
	0.4	(DM) Demonstration-Apply Improvised Pressure Dressing
	0.3	(DM) Demonstration-Use Pressure Pts./Control Bleeding
	0.2	(LE) Lecture
	0.3	(DM) Demonstration-Apply CAT to arm
	0.3	(PE) Student Practice
	0.1	(LE) Lecture
	0.3	(DM) Demonstration-Apply CAT to leg/thigh
	0.3	(PE) Student Practice
	0.2	(LE) Lecture
	0.2	(DM) Demonstration-Storing the CAT
	0.2	(LE) Lecture
	0.2	(DM) Demonstration-Preparing Improvised CAT
	0.2	(LE) Lecture
	0.3	(DM) Demonstration-Apply Improvised CAT
Summary:	0.2	(LE) Lecture
Total	6.0	

Security Clearance: Unclassified

Lesson Title: Controlling Bleeding

Action Text: Apply an emergency bandage, combat gauze, manual pressure, pressure dressing, Combat Application Tourniquet, and/or improvised tourniquet, as needed.

Condition: Given a simulated casualty with bleeding from a limb and needed supplies.

Standard: Score a GO on the performance checklist.

Remarks: This lesson is a detailed demonstration lab for soldiers to familiarize themselves with effective bleeding control methods. Emphasis is placed on judging what method to use based on severity of the wound and on the practicality of each method in care under fire or tactical field care situations. The soldier should leave with in-depth knowledge of how to stop bleeding from extremities and the utmost mastery of tourniquet applications.

Lesson Id/ Version	Technique of Delivery	Hours	Method of Instruction
5 / C	(GP) Large Group Instruction		

Introduction:	0.1	(LE) Lecture
	0.1	(LE) Lecture
	0.3	(DM) Demonstration- Level of Response/Consciousness
	0.1	(LE) Lecture
	0.2	(DM) Demonstration-Turn Casualty onto His Back
	0.1	(LE) Lecture
	0.2	(DM) Demonstration-Head Tilt/Chin-Lift
	0.2	(LE) Lecture
	0.2	(DM) Demonstration-Check for Breathing
	0.3	(LE) Lecture
	0.2	(DM) Demonstration-Check Carotid Pulse
	0.2	(LE) Lecture
	0.5	(DM) Demonstration-Perform Rescue Breathing
	0.2	(LE) Lecture
	0.4	(PE) Student Practice
	0.2	(LE) Lecture
	0.5	(DM) Demonstration-Insert Nasopharyngeal Airway
	0.8	(PE) Student Practice
	0.2	(DM) Demonstration-Place Casualty in Recovery Position
	0.3	(PE) Student Practice
Summary:	0.2	(LE) Lecture
Total	5.5	

Security Clearance: Unclassified

Lesson Title: Opening and Managing a Casualty's Airway.

Action Text: Open and manage the airway of a simulated casualty.

Condition: Given a simulated casualty and a combat lifesaver medical equipment set.

Standard: -Score a GO on the performance checklist.
-Score a GO on the comprehensive written examination.
-Additional injuries to the casualty are prevented.

Remarks: This lesson leads the soldier through the steps necessary to evaluate a casualty's breathing and to open the casualty's airway in event of airway blockage or casualty unconsciousness in a tactical field care situation. Through multiple demonstrations and practice exercises, the soldier will review the process of checking for awareness, responsiveness, and consciousness and move into more complex techniques such as rescue breathing and inserting the nasopharyngeal airway. The soldier should leave with the knowledge that while opening a casualty's airway in a care

under fire situation is highly impractical, the skill and knowledge to open and maintain the airway could save many potential lives in a tactical field care scenario.

Lesson Id/ Version		Technique of Delivery	Hours	Method of Instruction
6 / C		(GP) Large Group Instruction		
Introduction:	0.1	(LE) Lecture		
	0.3	(LE) Lecture		
	1.0	(DM) Demonstration-Treat Open Chest Wound		
	1.0	(PE) Student Practice		
	0.2	(LE) Lecture		
	1.0	(DM) Demonstration-Needle Chest Decompression		
	1.1	(PE) Student Practice		
Summary:	0.1	(LE) Lecture		
Total	4.8			

Security Clearance: Unclassified

Lesson Title: Treating Penetrating Chest Trauma

Action Text: Treat a simulated casualty with penetrating chest trauma, including decompressing a tension pneumothorax.

Condition: Given a simulated conscious or unconscious casualty and a combat lifesaver medical equipment set.

Standard: -Score a GO on the performance checklist.
-Additional injuries to the casualty are prevented.

Remarks: This lesson teaches the soldier two important tasks for tactical field care after a battle: treating open chest wounds and treating tension pneumothorax. An open chest wound introduces outside air inside the casualty's body which causes potential lung collapse. As such, sealing the open chest wound should be done as quickly as possible to ensure an open airway. In the event of air pressure affecting the lungs, the soldier is taught to relieve tension pneumothorax by administering a needle chest decompression. The soldier should leave understanding the urgency which open chest trauma requires treatment and should be able to administer such aid.

Lesson Id/ Version		Technique of Delivery	Hours	Method of Instruction
7 / C		(GP) Large Group Instruction		
Introduction:	0.1	(LE) Lecture		
	0.2	(LE) Lecture		
	0.4	(DM) Demonstration-Initiate and Attach FMC		
	0.5	(PE) Student Practice		
	0.2	(LE) Lecture		
	0.4	(PE) Student Practice		
	0.4	(DM) Demonstration-Attach TCCC card		
	1.0	(TE) Test-Certification Exam		
Summary:	0.1	(LE) Lecture		
Total	3.3			

Security Clearance: Unclassified

Lesson Title: Initiating a Field Medical Card or TCCC Card

Action Text: Initiate a DD Form 1380, U.S. Field Medical Card or a Tactical Combat Casualty Care Card.

Condition: Given information on a simulated casualty, a DD Form 1380 or a TCCC Card, and a writing instrument.

Standard: -Enter the required information in the appropriate blocks.
-Score a GO on the performance checklist.

Remarks: This lesson teaches the soldier how to fill out both the existing DD Form 1380 US Field Medical Card (FMC) and the Tactical Combat Casualty Card (TCCC) which is set to replace the FMC. As these cards are crucial for effective treatment of the casualty upon evacuation, the emphasis on this lesson is placed on diligence and precision when initiating the FMC and TCCC.

Lesson Id/ Version		Technique of Delivery	Hours	Method of Instruction
8 / C		(GP) Large Group Instruction		
Introduction:	0.1	(LE) Lecture		
	0.2	(LE) Lecture		
	0.3	(DM) Demonstration-MEDEVAC Request Line 1		
	0.3	(LE) Lecture		
	0.2	(PE) Student Practice		
	0.2	(LE) Lecture		
	0.8	(PE) Student Practice		
	1.0	(TE) Test-Certification Exam		
Summary:	0.1	(LE) Lecture		
Total	3.2			

Security Clearance: Unclassified

Lesson Title: Requesting Medical Evacuation.

Action Text: Prepare and transmit a medical evacuation (MEDEVAC) request.

Condition: Given information on simulated casualty or casualties, MEDEVAC request guide, a pencil or other writing instrument, paper, and a simulated transmitting device.

Standard: -Transmission includes all needed information in the proper sequence.
-Correct brevity code items used.
-Correct radiotelephone procedures (pronunciation, beginning, ending, and so forth) are used.
-Score a GO on the performance checklist.

Remarks: This lesson teaches the soldier the complex coded format with which to request a medical evacuation of casualties. Medical evacuation differs from casualty evacuation in that medical personnel and vehicles are used. As such, the soldier should understand that usually it will be the combat *medic* who initiates a MEDEVAC. However, in the event that the combat lifesaver is needed to do so, the soldier should be prepared with knowledge of the standardized code and the rules of radio transmission security.

Lesson Id/ Version	Technique of Delivery	Hours	Method of Instruction
9 / C	(GP) Large Group Instruction		
Introduction:	0.1		(LE) Lecture
	0.1		(LE) Lecture
	0.3		(DM) Demonstration-One-Person Drag
	0.3		(DM) Demonstration-Two-Person Drag
	0.1		(LE) Lecture
	0.3		(DM) Demonstration-Dragon Harness Drag
	0.3		(DM) Demonstration-Dragon Handle Drag
	0.3		(DM) Demonstration-Rescue Assault Tether Drag
	0.3		(DM) Demonstration-Drag Litters
	0.3		(DM) Demonstration-Hawes Carry
	0.4		(PE) Student Practice
	0.3		(DM) Demonstration-Two-Person Supporting Carry
Summary:	0.1		(LE) Lecture
Total	3.2		

Security Clearance: Unclassified

Lesson Title: Tactical Casualty Movement

Action Text: Conduct tactical casualty movement.

Condition: Given a simulated casualty, any needed equipment (such as dragon harness), and assisting personnel (for two-person drag or carry), as needed.

Standard: -Score a GO on the performance checklist.
-Additional injuries to the casualty are prevented.

Remarks: This lesson details the methods of casualty movement mentioned in lesson 2. Historically, soldiers have utilized one-person and two-person carries, but the sheer weight of the equipment needed for modern warfare makes those methods highly inefficient. While drags are taught in this lesson, the focal point is on contemporary methods of moving casualties with equipment taken into consideration, such as the Hawes carry, and on the use of commercial products which have been specifically developed for aiding casualty recovery and movement. Given the fact that in most instances, the combat lifesaver needs to move a casualty to a safe location before administering aid, this lesson is especially pertinent in prompting the soldier to plan his tactics as opposed to acting on impulse or spontaneous actions when under fire.

Lesson Id/ Version	Technique of Delivery	Hours	Method of Instruction
10 / C	(GP) Large Group Instruction		
Introduction:	0.1		(LE) Lecture
	0.3		(DM) Demonstration-Components of SKED Litter
	0.3		(DM) Demonstration-Using a SKED Litter
	0.4		(PE) Student Practice
	0.2		(DM) Demonstration-Preparing a Talon Litter
	0.2		(PE) Student Practice
	0.2		(DM) Demonstration-Secure Casualty to Long Spine Board
	0.3		(DM) Demonstration-Making a Blanket and Pole Litter
	0.2		(DM) Demonstration-Making a Poncho and Pole Litter
	0.6		(PE) Student Practice
Summary:	0.2		(LE) Lecture
Total	3.0		

Security Clearance: Unclassified

Lesson Title: Evacuating a Casualty Using a Litter

Action Text: Prepare and use a SKED litter, Talon litter, or improvised litter to evacuate a casualty.

Condition: Given a simulated casualty, personnel to act as litter bearers as needed, and either a SKED litter, a Talon litter, or materials to make an improvised litter.

Standard: Score a GO on the performance checklist.

Remarks: This lesson specifies different types of litters which may function to bring the casualty to the last stage of combat casualty care—tactical evaluation care. While the previous lesson detailed methods to effectively remove a casualty from positions of danger, this use of litters usually applies after tactical field care has been administered and the casualty is ready to be evacuated. Thus, the emphasis of this training should be on speed and efficiency as once the casualty is out of the danger of the battlefield, a quick evacuation may be a key factor in saving his life.

Examination Module

Title: Combat Lifesaver Subcourse

Purpose: To provide the designated soldier an introductory knowledge base and skill set in emergency medical situations so he/she may better aid the combat medic with administering aid and evacuating casualties which could lead to the prevention of battlefield deaths. The topics covered emphasize casualty evaluation and bleeding control as unnecessary blood loss is one of the primary reasons for battlefield deaths. Topics include evaluating and treating casualties in care under fire as well as tactical field care scenarios, controlling bleeding from the extremities, opening and managing a casualty's airway, treating penetrating chest trauma, initiating a Tactical Combat Casualty Card, requesting MEDEVAC, and tactical casualty movement.

Remarks: This module culminates in a comprehensive one (1) hour written examination covering all Combat Lifesaver Subcourse materials. Students must also demonstrate competency in the hands-on skills covered during practical exercises.

Lesson Id/ Version	Technique of Delivery	Hours	Method of Instruction
1-10 / C	(GP) Large Group Instruction		
		1.0	(TE) Test
	Total:	1.0	

Security Clearance for Exam/Test: Unclassified

Lesson Title: Combat Lifesaver Subcourse Written Examination

Action Text: Complete the Combat Lifesaver Subcourse written examination

Condition: Given a Written Examination
Standard: Score a minimum of 70 out of 100 points to pass examination

Remarks: This examination is a comprehensive, one (1) hour written examination covering all Combat Lifesaver subcourse subjects provided during the module. Students must score at least 70 out of 100 points to pass the examination.

Individual Task Summary

Task	Title	Lesson/Ver.	Critical Task?
081-833-0194	Prepare an Aid Bag	1/C	Yes
081-833-0047	Initiate Treatment for Hypovolemic Shock	1/C	Yes
081-833-0010	Establish a Sterile Field	2/C	Yes
081-833-0010	Change a Sterile Dressing	2/C	Yes
081-833-0050	Treat Casualty with Open Chest Wound	3/C	Yes
081-833-0213	Perform a Tactical Casualty Assess.	3/C	Yes
081-831-1052	Apply a Splint to a Fractured Limb	3/C	Yes
081-33-0161	Control Bleeding	4/C	Yes
081-833-0157	Provide Basic Emer. Med. Care for Amp.	4/C	Yes
081-833-0210	Apply a Tourniquet to Control Bleeding	4/C	Yes
081-833-0046	Apply a Dressing to Impalement Injury	4/C	Yes
081-833-0212	Apply Pressure Dressing to Open Wound	4/C	Yes
081-831-0018	Open the Airway	5/C	Yes
081-831-0019	Clear an Upper Airway Obstruction	5/C	Yes
081-831-0046	Administer External Chest Compressions	5/C	Yes
081-831-0048	Perform Rescue Breathing	5/C	Yes
081-833-0142	Insert a Nasopharyngeal Airway	5/C	Yes
081-833-3007	Perform Needle Chest Decompression	6/C	Yes
081-831-0033	Initiate a Field Medical Card	7/C	Yes
081-831-1054	Evacuate Casualties	10/C	Yes

Ammunition Summary

None

Facilities Summary

Nomenclature: CLASSROOM

Lesson/ Version	Step	Facility Quantity	Student Ratio	Setup Hours	Cleanup Hours	Instruction Hours	Facility Hours
1/C	TLO	1	1:40	0.3	0.3	2.4	3
Lesson Total		**1**	**1:40**	**0.3**	**0.3**	**2.4**	**3**
2/C	TLO	1	1:40	0.3	0.3	2	2.6
Lesson Total		**1**	**1:40**	**0.3**	**0.3**	**2**	**2.6**
3/C	TLO	1	1:40	0.3	0.3	6.6	7.2
Lesson Total		**1**	**1:40**	**0.3**	**0.3**	**6.6**	**7.2**
4/C	TLO	1	1:40	0.3	0.3	6	6.6
Lesson Total		**1**	**1:40**	**0.3**	**0.3**	**6**	**6.6**
5/C	TLO	1	1:40	0.3	0.3	5.5	6.1
Lesson Total		**1**	**1:40**	**0.3**	**0.3**	**5.5**	**6.1**
6/C	TLO	1	1:40	0.3	0.3	4.8	5.4
Lesson Total		**1**	**1:40**	**0.3**	**0.3**	**4.8**	**5.4**
7/C	TLO	1	1:40	0.3	0.3	3.3	3.9
Lesson Total		**1**	**1:40**	**0.3**	**0.3**	**3.3**	**3.9**
8/C	TLO	1	1:40	0.3	0.3	3.2	3.8
Lesson Total		**1**	**1:40**	**0.3**	**0.3**	**3.2**	**3.8**
9/C	TLO	1	1:40	0.3	0.3	3.2	3.8
Lesson Total		**1**	**1:40**	**0.3**	**0.3**	**3.2**	**3.8**
10/C	TLO	1	1:40	0.3	0.3	3	3.6
Lesson Total		**1**	**1:40**	**0.3**	**0.3**	**3**	**3.6**

Nomenclature: SKILLS LAB

Lesson/ Version	Step	Facility Quantity	Student Ratio	Setup Hours	Cleanup Hours	Instruction Hours	Facility Hours
5/C	TLO	1	1:10	0.3	0.3	1	1.6
Lesson Total		**1**	**1:10**	**0.3**	**0.3**	**1**	**1.6**
9/C	TLO	1	1:10	0.3	0.3	0.5	1.1
Lesson Total		**1**	**1:10**	**0.3**	**0.3**	**0.5**	**1.1**
10/C	TLO	1	1:10	0.3	0.3	0.5	1.1
Lesson Total		**1**	**1:10**	**0.3**	**0.3**	**0.5**	**1.1**

Equipment Summary

NSN (LIN): 6510-00-201-7430 Dressing, First Aid, Field
NSN Quantity: EA (Each)

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
1/C		1:40	0	1	0	1	0	0
	Lesson Total		0	1	0	1	0	0
	NSN (LIN) Total		0	1	0	1	0	0

NSN (LIN): 6510-00-935-5823 Bandage, Elastic Flesh Rolled
NSN Quantity: PG (Package) of 10

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
1/C		1:40	0	1	0	1	0	0
	Lesson Total		0	1	0	1	0	0
	NSN (LIN) Total		0	1	0	1	0	0

NSN (LIN): 6545-01-572-9963 CLS Bag (Complete)
NSN Quantity: SE (Set)

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
1/C		1:40	0	1	0	1	0	0
	Lesson Total		0	1	0	1	0	0
	NSN (LIN) Total		0	1	0	1	0	0
2/C		1:40	0	1	0	1	0	0
	Lesson Total		0	1	0	1	0	0
	NSN (LIN) Total		0	1	0	1	0	0
3/C		1:40	0	1	0	1	0	0
	Lesson Total		0	1	0	1	0	0
	NSN (LIN) Total		0	1	0	1	0	0
4/C	DE	1:40	0	1	0	1	0	0
4/C	PE	1:10	4	0	0	4	0	0

	Lesson Total		4	1	0	4	0	0
	NSN (LIN) Total		4	1	0	4	0	0
5/C	DE	1:40	0	1	0	1	0	0
5/C	PE	1:10	4	0	0	4	0	0
	Lesson Total		4	1	0	4	0	0
	NSN (LIN) Total		4	1	0	4	0	0
6/C	DE	1:40	0	1	0	1	0	0
6/C	PE	1:10	4	0	0	4	0	0
	Lesson Total		4	1	0	4	0	0
	NSN (LIN) Total		4	1	0	4	0	0

NSN (LIN): 6515-01-521-7976 Tourniquet, Combat Application (CAT)
NSN Quantity: EA (Each)

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
2/C		1:40	0	1	0	1	0	0
	Lesson Total		0	1	0	1	0	0
	NSN (LIN) Total		0	1	0	1	0	0
4/C	DE	1:40	0	1	0	1	0	0
4/C	PE	1:10	4	0	0	4	0	0
	Lesson Total		4	1	0	4	0	0
	NSN (LIN) Total		4	1	0	4	0	0

NSN (LIN): 6510-00-201-1755 Bandage, Muslin (Cravat, Triangular)
NSN Quantity: EA (Each)

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
3/C		1:40	0	1	0	1	0	0
	Lesson Total		0	1	0	1	0	0
	NSN (LIN) Total		0	1	0	1	0	0
4/C		1:40	0	1	0	1	0	0

	Lesson Total	0	1	0	1	0	0
	NSN (LIN) Total	0	1	0	1	0	0

NSN (LIN): 6532-01-524-6932 Blanket Survival Blizzard Pack
NSN Quantity: EA (Each)

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
3/C		1:40	0	1	0	1	0	0
	Lesson Total		0	1	0	1	0	0
	NSN (LIN) Total		0	1	0	1	0	0

NSN (LIN): 6532-01-525-4062 Blanket, Heating Disposable 90cmx90cm
NSN Quantity: PG (Package) of 8

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
3/C		1:40	0	1	0	1	0	0
	Lesson Total		0	1	0	1	0	0
	NSN (LIN) Total		0	1	0	1	0	0

NSN (LIN): 6545-01-530-0929 First Aid Kit, Universal (IFAK)
NSN Quantity: KT (Kit)

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
3/C		1:40	0	1	0	1	0	0
	Lesson Total		0	1	0	1	0	0
	NSN (LIN) Total		0	1	0	1	0	0

NSN (LIN): 6515-00-372-1200 Splint, Wood 18x4
NSN Quantity: PG (Package) of 12

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
3/C		1:40	0	1	0	1	0	0
	Lesson Total		0	1	0	1	0	0
	NSN (LIN) Total		0	1	0	1	0	0

NSN (LIN): 6515-01-225-4681 Splint, Aluminum Malleable (SAM)
NSN Quantity: EA (Each)

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
3/C		1:40	0	1	0	1	0	0
	Lesson Total		0	1	0	1	0	0
	NSN (LIN) Total		0	1	0	1	0	0

NSN (LIN): 6530-01-530-3860 Standard Litter
NSN Quantity: EA (Each)

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
3/C		1:40	0	1	0	1	0	0
	Lesson Total		0	1	0	1	0	0
	NSN (LIN) Total		0	1	0	1	0	0

NSN (LIN): 6910-01-C05-5413 Megacode Kelly (Manikin)
NSN Quantity: EA (Each)

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
4/C	DE	1:40	0	1	0	1	0	0
4/C	PE	1:10	4	0	0	4	0	0
	Lesson Total		4	1	0	4	0	0
	NSN (LIN) Total		4	1	0	4	0	0
5/C	DE	1:40	0	1	0	1	0	0
5/C	PE	1:10	4	0	0	4	0	0
	Lesson Total		4	1	0	4	0	0
	NSN (LIN) Total		4	1	0	4	0	0
6/C	DE	1:40	0	1	0	1	0	0
6/C	PE	1:10	4	0	0	4	0	0
	Lesson Total		4	1	0	4	0	0
	NSN (LIN) Total		4	1	0	4	0	0

NSN (LIN): 6510-01-492-2275 Bandage Kit, Emergency Trauma

NSN Quantity: EA (Each)

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
4/C	DE	1:40	0	1	0	1	0	0
4/C	PE	1:10	4	0	0	4	0	0
	Lesson Total		4	1	0	4	0	0
	NSN (LIN) Total		4	1	0	4	0	0
6/C	DE	1:40	0	1	0	1	0	0
6/C	PE	1:10	4	0	0	4	0	0
	Lesson Total		4	1	0	4	0	0
	NSN (LIN) Total		4	1	0	4	0	0

NSN (LIN): 6515-00-935-7138 Scissors, Bandage
NSN Quantity: EA (Each)

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
4/C	DE	1:40	0	1	0	1	0	0
4/C	PE	1:10	4	0	0	4	0	0
	Lesson Total		4	1	0	4	0	0
	NSN (LIN) Total		4	1	0	4	0	0
5/C	DE	1:40	0	1	0	1	0	0
5/C	PE	1:10	4	0	0	4	0	0
	Lesson Total		4	1	0	4	0	0
	NSN (LIN) Total		4	1	0	4	0	0
6/C	DE	1:40	0	1	0	1	0	0
6/C	PE	1:10	4	0	0	4	0	0
	Lesson Total		4	1	0	4	0	0
	NSN (LIN) Total		4	1	0	4	0	0

NSN (LIN): 6515-01-364-8554 Gloves, PT Exam and Treatment
NSN Quantity: PG (Package) of 100

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours

4/C	DE	1:40	0	1	0	1	0	0
4/C	PE	1:10	1	0	0	1	0	0
	Lesson Total		1	1	0	1	0	0
	NSN (LIN) Total		1	1	0	1	0	0
5/C	DE	1:40	0	1	0	1	0	0
5/C	PE	1:10	1	0	0	1	0	0
	Lesson Total		1	1	0	1	0	0
	NSN (LIN) Total		1	1	0	1	0	0
6/C	DE	1:40	0	1	0	1	0	0
6/C	PE	1:10	1	0	0	1	0	0
	Lesson Total		1	1	0	1	0	0
	NSN (LIN) Total		1	1	0	1	0	0

NSN (LIN): 6910-00-540-6378 War Wound Moulage Kit
NSN Quantity: SE (Set)

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
4/C	DE	1:40	0	1	0	1	0	0
4/C	PE	1:10	1	0	0	1	0	0
	Lesson Total		1	1	0	1	0	0
	NSN (LIN) Total		1	1	0	1	0	0
6/C	DE	1:40	0	1	0	1	0	0
6/C	PE	1:10	1	0	0	1	0	0
	Lesson Total		1	1	0	1	0	0
	NSN (LIN) Total		1	1	0	1	0	0

NSN (LIN): 6510-01-503-2117 Bandage Gauze Cotton 6-Ply
NSN Quantity: RO (Roll) of 41

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
4/C		1:40	0	1	0	1	0	0
	Lesson Total		0	1	0	1	0	0
	NSN (LIN) Total		0	1	0	1	0	0

NSN (LIN): 6515-01-529-1187 Nasopharyngeal Airway 28 FR
NSN Quantity: EA (Each)

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
5/C	DE	1:40	0	1	0	1	0	0
5/C	PE	1:10	4	0	0	4	0	0
	Lesson Total		4	1	0	4	0	0
	NSN (LIN) Total		4	1	0	4	0	0

NSN (LIN): 6510-00-926-8884 Adhesive Tape, Surgical
NSN Quantity: PG (Package) of 4

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
5/C	DE	1:40	0	1	0	1	0	0
5/C	PE	1:10	1	0	0	1	0	0
	Lesson Total		1	1	0	1	0	0
	NSN (LIN) Total		1	1	0	1	0	0
6/C	DE	1:40	0	1	0	1	0	0
6/C	PE	1:10	1	0	0	1	0	0
	Lesson Total		1	1	0	1	0	0
	NSN (LIN) Total		1	1	0	1	0	0

NSN (LIN): 6515-01-239-2494 Catheter/ Needle Unit, 14GA
NSN Quantity: PG (Package) of 200

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
6/C	DE	1:40	0	1	0	1	0	0
6/C	PE	1:10	1	0	0	1	0	0
	Lesson Total		1	1	0	1	0	0
	NSN (LIN) Total		1	1	0	1	0	0

NSN (LIN): 6510-00-721-9808 Sponge, Surgical
NSN Quantity: PG (Package) of 1200

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours

6/C	DE	1:40	0	1	0	1	0	0
6/C	PE	1:10	1	0	0	1	0	0
	Lesson Total		1	1	0	1	0	0
	NSN (LIN) Total		1	1	0	1	0	0

NSN (LIN): 6510-00-786-3736 Pad, Isopropyl Alcohol Impregnated
NSN Quantity: PG (Package) of 200

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
6/C	DE	1:40	0	1	0	1	0	0
6/C	PE	1:10	1	0	0	1	0	0
	Lesson Total		1	1	0	1	0	0
	NSN (LIN) Total		1	1	0	1	0	0

NSN (LIN): 6510-01-010-0307 Pad, Povidon-Iodine
NSN Quantity: PG (Package) of 100

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
6/C	DE	1:40	0	1	0	1	0	0
6/C	PE	1:10	1	0	0	1	0	0
	Lesson Total		1	1	0	1	0	0
	NSN (LIN) Total		1	1	0	1	0	0

NSN (LIN): 6510-01-408-1920 Chest Seal, Asherman
NSN Quantity: PG (Package) of 10

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
6/C	DE	1:40	0	1	0	1	0	0
6/C	PE	1:10	1	0	0	1	0	0
	Lesson Total		1	1	0	1	0	0
	NSN (LIN) Total		1	1	0	1	0	0

NSN (LIN): 6510-01-499-9285 Hemostat Agent, Quick Clot Bag
NSN Quantity: EA (Each)

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours

6/C	DE	1:40	0	1	0	1	0	0
6/C	PE	1:10	4	0	0	4	0	0
	Lesson Total		4	1	0	4	0	0
	NSN (LIN) Total		4	1	0	4	0	0

NSN (LIN): 6510-01-503-8726 Hemostatic Agent, Hemcon
NSN Quantity: PG (Package) of 5

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
6/C	DE	1:40	0	1	0	1	0	0
6/C	PE	1:10	1	0	0	1	0	0
	Lesson Total		1	1	0	1	0	0
	NSN (LIN) Total		1	1	0	1	0	0

NSN (LIN): 6510-01-549-5980 Hemostatic Agent, Celox
NSN Quantity: EA (Each)

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
6/C	DE	1:40	0	1	0	1	0	0
6/C	PE	1:10	4	0	0	4	0	0
	Lesson Total		4	1	0	4	0	0
	NSN (LIN) Total		4	1	0	4	0	0

NSN (LIN): 6510-01-573-0300 Dressing, Chest Seal 8"x6"
NSN Quantity: EA (Each)

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
6/C	DE	1:40	0	1	0	1	0	0
6/C	PE	1:10	4	0	0	4	0	0
	Lesson Total		4	1	0	4	0	0
	NSN (LIN) Total		4	1	0	4	0	0

NSN (LIN): 6515-01-532-6656 Bandage Kit, Elastic Abdominal Wound
NSN Quantity: KT (Kit)

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours

6/C	DE	1:40	0	1	0	1	0	0
6/C	PE	1:10	4	0	0	4	0	0
	Lesson Total		4	1	0	4	0	0
	NSN (LIN) Total		4	1	0	4	0	0

NSN (LIN): 6515-01-541-0635 Needle Decompression Device
NSN Quantity: EA (Each)

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
6/C	DE	1:40	0	1	0	1	0	0
6/C	PE	1:10	4	0	0	4	0	0
	Lesson Total		4	1	0	4	0	0
	NSN (LIN) Total		4	1	0	4	0	0

NSN (LIN): 6515-01-562-3346 Dressing Wound Seal 6"x8" Occlusive
NSN Quantity: PG (Package) of 25

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
6/C	DE	1:40	0	1	0	1	0	0
6/C	PE	1:10	1	0	0	1	0	0
	Lesson Total		1	1	0	1	0	0
	NSN (LIN) Total		1	1	0	1	0	0

NSN (LIN): 6515-01-540-7226 Shears, Leash Trauma Black
NSN Quantity: EA (Each)

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
6/C	DE	1:40	0	1	0	1	0	0
6/C	PE	1:10	4	0	0	4	0	0
	Lesson Total		4	1	0	4	0	0
	NSN (LIN) Total		4	1	0	4	0	0

NSN (LIN): 7540-01-460-8995 Form, Printed FMC
NSN Quantity: BK (Book) of 10

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours

7/C	DE	1:40	0	1	0	1	0	0
7/C	PE	1:10	1	0	0	1	0	0
	Lesson Total		1	1	0	1	0	0
	NSN (LIN) Total		1	1	0	1	0	0

NSN (LIN): N/A Dragon Harness
NSN Quantity: N/A

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
9/C	DE	1:40	0	1	0	1	0	0
9/C	PE	1:10	4	0	0	4	0	0
	Lesson Total		4	1	0	5	0	0
	NSN (LIN) Total		4	1	0	5	0	0

NSN (LIN): N/A Dragon Handle
NSN Quantity: N/A

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
9/C	DE	1:40	0	1	0	1	0	0
9/C	PE	1:10	4	0	0	4	0	0
	Lesson Total		4	1	0	5	0	0
	NSN (LIN) Total		4	1	0	5	0	0

NSN (LIN): N/A Rescue Assault Tether (Rat Strap)
NSN Quantity: N/A

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
9/C	DE	1:40	0	1	0	1	0	0
9/C	PE	1:10	4	0	0	4	0	0
	Lesson Total		4	1	0	5	0	0
	NSN (LIN) Total		4	1	0	5	0	0

NSN (LIN): N/A Slick Drag Litter
NSN Quantity: N/A

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours

9/C	DE	1:40	0	1	0	1	0	0
9/C	PE	1:10	4	0	0	4	0	0
	Lesson Total		4	1	0	5	0	0
	NSN (LIN) Total		4	1	0	5	0	0

NSN (LIN): N/A Black Hawk Fast Attack Litter
NSN Quantity: N/A

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
9/C	DE	1:40	0	1	0	1	0	0
9/C	PE	1:10	4	0	0	4	0	0
	Lesson Total		4	1	0	5	0	0
	NSN (LIN) Total		4	1	0	5	0	0

NSN (LIN): N/A Sol Litter
NSN Quantity: N/A

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
9/C	DE	1:40	0	1	0	1	0	0
9/C	PE	1:10	4	0	0	4	0	0
	Lesson Total		4	1	0	5	0	0
	NSN (LIN) Total		4	1	0	5	0	0

NSN (LIN): 8405-01-100-0976 Poncho
NSN Quantity: EA (Each)

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
9/C	DE	1:40	0	1	0	1	0	0
9/C	PE	1:10	4	0	0	4	0	0
	Lesson Total		4	1	0	4	0	0
	NSN (LIN) Total		4	1	0	4	0	0
10/C	DE	1:40	0	1	0	1	0	0
10/C	PE	1:10	4	0	0	4	0	0
	Lesson Total		4	1	0	4	0	0

	NSN (LIN) Total	4	1	0	4	0	0

NSN (LIN): 6505-01-568-3219 Strap Cutter, Combat
NSN Quantity: EA (Each)

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
10/C	DE	1:40	0	1	0	1	0	0
10/C	PE	1:10	4	0	0	4	0	0
	Lesson Total		4	1	0	4	0	0
	NSN (LIN) Total		4	1	0	4	0	0

NSN (LIN): 6530-01-260-1222 SKED Litter
NSN Quantity: EA (Each)

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
10/C	DE	1:40	0	1	0	1	0	0
10/C	PE	1:10	4	0	0	4	0	0
	Lesson Total		4	1	0	4	0	0
	NSN (LIN) Total		4	1	0	4	0	0

NSN (LIN): 6530-01-451-2958 Container, Sharps Collection
NSN Quantity: EA (Each)

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
10/C	DE	1:40	0	1	0	1	0	0
10/C	PE	1:10	4	0	0	4	0	0
	Lesson Total		4	1	0	4	0	0
	NSN (LIN) Total		4	1	0	4	0	0

NSN (LIN): 6530-01-452-1651 Talon Litter
NSN Quantity: EA (Each)

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
10/C	DE	1:40	0	1	0	1	0	0
10/C	PE	1:10	4	0	0	4	0	0
	Lesson Total		4	1	0	4	0	0

	NSN (LIN) Total		4	1	0	4	0	0

NSN (LIN): 6530-01-784-4205 Litter Straps
NSN Quantity: EA (Each)

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
10/C	DE	1:40	0	1	0	1	0	0
10/C	PE	1:10	4	0	0	4	0	0
	Lesson Total		4	1	0	4	0	0
	NSN (LIN) Total		4	1	0	4	0	0

NSN (LIN): 7210-00-715-7985 Blanket, Wool
NSN Quantity: EA (Each)

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
10/C	DE	1:40	0	1	0	1	0	0
10/C	PE	1:10	4	0	0	4	0	0
	Lesson Total		4	1	0	4	0	0
	NSN (LIN) Total		4	1	0	4	0	0

NSN (LIN): 8340-00-470-2335 Tent Pole
NSN Quantity: EA (Each)

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
10/C	DE	1:40	0	1	0	1	0	0
10/C	PE	1:10	4	0	0	4	0	0
	Lesson Total		4	1	0	4	0	0
	NSN (LIN) Total		4	1	0	4	0	0

NSN (LIN): 8415-01-519-8497 ACU Blouse (Improvised Litter)
NSN Quantity: EA (Each)

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
10/C	DE	1:40	0	1	0	1	0	0
10/C	PE	1:10	4	0	0	4	0	0
	Lesson Total		4	1	0	4	0	0

	NSN (LIN) Total		4	1	0	4	0	0

NSN (LIN): 7025-01-Z39-1440 Computer
NSN Quantity: EA (Each)

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
1/C		1:40	0	1	0	1	0	0
	Lesson Total		0	1	0	1	0	0
	NSN (LIN) Total		0	1	0	1	0	0

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
2/C		1:40	0	1	0	1	0	0
	Lesson Total		0	1	0	1	0	0
	NSN (LIN) Total		0	1	0	1	0	0

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
3/C		1:40	0	1	0	1	0	0
	Lesson Total		0	1	0	1	0	0
	NSN (LIN) Total		0	1	0	1	0	0

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
4/C		1:40	0	1	0	1	0	0
	Lesson Total		0	1	0	1	0	0
	NSN (LIN) Total		0	1	0	1	0	0

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
5/C		1:40	0	1	0	1	0	0
	Lesson Total		0	1	0	1	0	0
	NSN (LIN) Total		0	1	0	1	0	0

Lesson/		Student	Student	Instructor	Other		OPTEMPO	

Version	Step	Ratio	Quantity	Quantity	Quantity	Total	Miles	Hours
6/C		1:40	0	1	0	1	0	0
	Lesson Total		0	1	0	1	0	0
	NSN (LIN) Total		0	1	0	1	0	0

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
7/C		1:40	0	1	0	1	0	0
	Lesson Total		0	1	0	1	0	0
	NSN (LIN) Total		0	1	0	1	0	0

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
8/C		1:40	0	1	0	1	0	0
	Lesson Total		0	1	0	1	0	0
	NSN (LIN) Total		0	1	0	1	0	0

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
9/C		1:40	0	1	0	1	0	0
	Lesson Total		0	1	0	1	0	0
	NSN (LIN) Total		0	1	0	1	0	0

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
10/C		1:40	0	1	0	1	0	0
	Lesson Total		0	1	0	1	0	0
	NSN (LIN) Total		0	1	0	1	0	0

NSN (LIN): COMPU-PROJ Projector, Overhead w/ Computer Interface
NSN Quantity: EA (Each)

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
1/C		1:40	0	1	0	1	0	0

	Lesson Total		0	1	0	1	0	0
	NSN (LIN) Total		0	1	0	1	0	0

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
2/C		1:40	0	1	0	1	0	0
	Lesson Total		0	1	0	1	0	0
	NSN (LIN) Total		0	1	0	1	0	0

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
3/C		1:40	0	1	0	1	0	0
	Lesson Total		0	1	0	1	0	0
	NSN (LIN) Total		0	1	0	1	0	0

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
4/C		1:40	0	1	0	1	0	0
	Lesson Total		0	1	0	1	0	0
	NSN (LIN) Total		0	1	0	1	0	0

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
5/C		1:40	0	1	0	1	0	0
	Lesson Total		0	1	0	1	0	0
	NSN (LIN) Total		0	1	0	1	0	0

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
6/C		1:40	0	1	0	1	0	0
	Lesson Total		0	1	0	1	0	0
	NSN (LIN) Total		0	1	0	1	0	0

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours

7/C		1:40	0	1	0	1	0	0
	Lesson Total		0	1	0	1	0	0
	NSN (LIN) Total		0	1	0	1	0	0

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
8/C		1:40	0	1	0	1	0	0
	Lesson Total		0	1	0	1	0	0
	NSN (LIN) Total		0	1	0	1	0	0

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
9/C		1:40	0	1	0	1	0	0
	Lesson Total		0	1	0	1	0	0
	NSN (LIN) Total		0	1	0	1	0	0

Lesson/ Version	Step	Student Ratio	Student Quantity	Instructor Quantity	Other Quantity	Total	OPTEMPO Miles	OPTEMPO Hours
10/C		1:40	0	1	0	1	0	0
	Lesson Total		0	1	0	1	0	0
	NSN (LIN) Total		0	1	0	1	0	0

TADSS Summary

None

Headquarters Memorandum

None

Memo of Transmittal

None

Appendix B
Enhanced Lecture PowerPoint (Beta)

Combat Lifesaver Course

Clickers

- Find the number located on the top of your clicker. Write it on your tent now.

Turn on power

Clickers

- Select response by pressing multiple choice letter (a – e). Or true (1 A), false (2 B).
- Enter response by pressing the right blue button.

Clickers

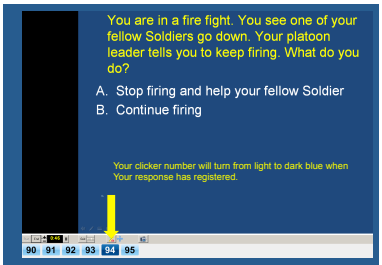
Redo response by pressing the left blue button.

Clicker will go to sleep if not used. Press any button to wake back up.

You are in a fire fight. You see one of your fellow Soldiers go down. Your platoon leader tells you to keep firing. What do you do?

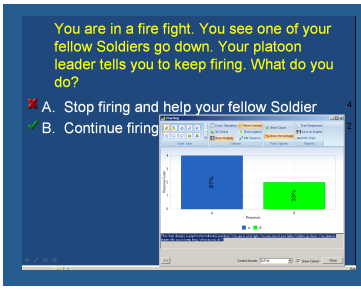
A. Stop firing and help your fellow Soldier
B. Continue firing

Your clicker number will turn from light to dark blue when Your response has registered.



You are in a fire fight. You see one of your fellow Soldiers go down. Your platoon leader tells you to keep firing. What do you do?

A. Stop firing and help your fellow Soldier
B. Continue firing



The Role of the Combat Lifesaver

- Army Battle Doctrine
- Creation of Combat Lifesaver

The Role of the Combat Lifesaver

- A bridge between first aid training and medic training
- A secondary mission
- Number of combat lifesavers
- Provide immediate care

The Role of the Combat Lifesaver

Combat Lifesaver's Aid Bag

Tactical Combat Casualty Care

- Approximately 90% of combat deaths occur on the battlefield before the casualties reach a medical treatment facility
- Most of these deaths can not be prevented by you or the medic

Examples
Massive head trauma, massive trauma to the body

Tactical Combat Casualty Care

STOP

RELIEVE

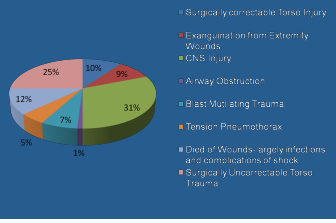
RESTORE

You are in a fire fight. You see one of your fellow Soldiers go down. Your platoon leader tells you to keep firing. What do you do?

✗ A. Stop firing and help your fellow Soldier
✓ B. Continue firing

✓ [Default]
✗ [MC Any]
✗ [MC A I]

Most common causes of death due to ground combat



Phases of Tactical Combat Casualty Care

Care Under Fire

Tactical Field Care

Tactical Evacuation Care

Care Under Fire

- Apply tourniquet
- Move casualty to a safer location

Tactical Field Care

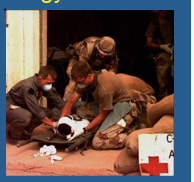
- You are not under direct enemy fire
  - But medical supplies are limited

Tactical Evacuation Care

- MEDVAC
- CASEVAC

Terminology

- **Casualty**
- **Rescuer**
- **Self-Aid**
- **Buddy-Aid**
- **Medical Treatment**



A combat lifesaver is giving care to a wounded Soldier. How would you describe this care?

- ✗ A. Self-Aid
- ✓ B. Buddy-Aid
- ✗ C. Medical Treatment
- ✗ D. All of the above

Terminology

- **Medical Treatment Facility**
- **Collection Point**

Terminology

- **Extremity**- a human limb

- **Upper extremity**- Arm (between shoulder and elbow), Forearm (between elbow and wrist), wrist, hand
- **Lower Extremity**- Thigh (between hip and knee), Leg (between knee and ankle), ankle, foot

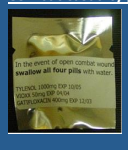
Terminology

- **Hemorrhage**
- **Dressing**
- **Bandage**
- **Field Dressing**
- **Emergency Bandage**
- **Combat Gauze (hemostatic bandage)**
- **Tourniquet**



Terminology

- **Combat application tourniquet (CAT)**
- **Combat lifesaver medical equipment set**
- **Combat casualty pill pack**



Terminology

- **Distal**
- **Proximal**
- **Artery**
- **Vein**

What term is used to tell me the relationship of your right elbow to your right wrist?

- ✗ A. The right elbow is distal to the right wrist.
- ✓ B. The right elbow is proximal to the right wrist.

What care rendered by the Combat Lifesaver will probably result in saving the most lives?

- ✗ A. Relieve tension pneumothorax
- ✗ B. Restore and maintain casualty airway
- ✓ C. Stop severe bleeding from wounds to the arms and legs

[Default]
[MC Amy]
[MC Al]

Prompt action by a Combat Lifesaver will prevent most battlefield deaths

- ✗ A. True
- ✓ B. False

Conclusion

Most battlefield deaths are caused by injuries that are too severe for the Combat Lifesaver or even Medical Personnel to save. However, applying a tourniquet, maintaining a casualty's airway and treating open chest wounds can result in saving lives.

Care Under Fire

- You are very limited in the care you can provide
- You may not be able to provide any direct care to the casualty
- Sometimes the best thing you can do for a casualty is to continue firing at the enemy

Actions Under Fire

When under fire and you see a wounded Soldier:

1. Take cover and return fire
2. Suppress enemy fire

Actions Under Fire

3. Prevent additional injury
4. Remain engaged
5. Determine condition
6. Direct the casualty

Actions Under Fire

7. Tell casualty to apply a CAT

8. "Play Dead"
9. Communicate

Why would you want to tell your leader before you try to assist a casualty?

- ✗ A. You wouldn't, there is no need
- ✗ B. He may tell you to keep firing
- ✗ C. He can have other Soldiers provide covering fire for you
- ✓ D. B & C
- ✗ E. None of the Above

Approaching the Casualty

If the casualty cannot move himself, you can provide assistance by moving to the casualty

Actions Before Approaching the Casualty

1. Scan
2. Determine your route
3. Request covering fire

Approaching the Casualty

1. Form a general impression
2. Decide what care to administer
3. Anticipate your movements

Approach the Casualty

1. Approach the casualty using a safe route
2. Survey the area for possible enemy actions, such as small arms fire
3. Survey the area for explosive devices and possible chemical agents
4. Survey any nearby buildings for structural stability

Providing Care Under Fire

1. Determine responsiveness
2. If casualty has an amputation, apply a tourniquet

Providing Care Under Fire

3. Move casualty to safety
4. Take the casualty's weapon and mission essential items

Providing Care Under Fire

Situations where you should avoid treating the casualty while under fire:

- Your life is in imminent danger
- Other soldiers need treatment more urgently
- The casualty has no vital signs

Checking the Casualty for Responsiveness

- You will probably not have an opportunity to check for responsiveness during Care Under Fire
- Once in a safe location, you can fully check the casualty for responsiveness and determine his level of consciousness

Which of the following can prevent the greatest number of deaths on the battlefield?

- ✓ A. Control bleeding from an extremity
- ✗ B. Relieve tension pneumothorax
- ✗ C. Clear an airway
- ✗ D. Check responsiveness

Controlling Hemorrhaging

Quickly check the casualty for potentially life threatening arterial bleeding from an extremity

Controlling Hemorrhaging

- Apply tourniquet to amputation, even if no signs of hemorrhaging
- Do not waste time with other techniques

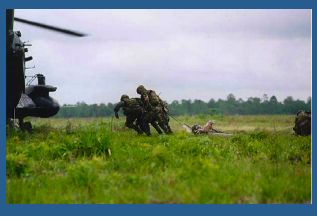
Standard procedures is to place the tourniquet two inches above the wound, but you placed it well above the two inches. Why did you do that?

- ✘ A. I think the standard procedure is stupid.
- ✓ B. I was applying the tourniquet quickly. It can be placed properly when a safe location is reached.
- ✘ C. The wound was bleeding heavily.

When you are under fire, you would take time to apply a tourniquet to a severely bleeding wound; however, you would not take time to check the casualty's breathing. Why?

- ✘ A. It may be too noisy to determine if the casualty is breathing
- ✘ B. You don't have time to perform rescue breathing (mouth-to-mouth resuscitation)
- ✘ C. It's too dangerous to perform rescue breathing under fire
- ✓ D. All of the above

Move the Casualty to Safety



You are moving a casualty to a safe location. What should you do about his rifle?

- ✘ A. Leave it where it has fallen
- ✓ B. Take it with you, if possible
- ✘ C. Give it to another Soldier to use

Performing Tactical Field Care following Care Under Fire

- Occurs when you and the casualty are no longer under direct enemy fire
- Use available medical equipment

Check the Casualty's Level of Consciousness AVPU System

ALERT

A on the scale

Check the Casualty's Level of Consciousness AVPU System

Verbal

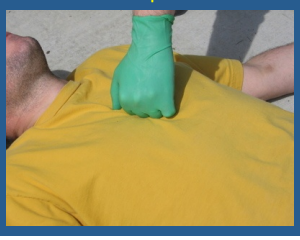
V on the scale

Check the Casualty's Level of Consciousness AVPU System

Pain

P on the scale

Check for Response to Pain



Check the Casualty's Level of Consciousness
AVPU System

Unresponsive

U on the scale

AVPU System

A The casualty is alert, knows who he is, the date, where he is, and so forth.
V The casualty is not alert, but does respond to verbal commands.
P The casualty responds to pain, but not verbal commands.
U The casualty is unresponsive (unconscious).

Reassess Tourniquet

If you applied a tourniquet to the casualty in a care-under-fire situation, reassess the bleeding now.

- Expose the wound
- If necessary, apply second tourniquet
- If tourniquet is not necessary, try another approach

CAUTION

DO NOT REMOVE A TOURNIQUET THAT HAS BEEN IN PLACE FOR MORE THAN SIX HOURS

Removing a tourniquet after six hours should only be performed by medical personnel

Check for a Life-Threatening Hemorrhage

Check the casualty for any untreated wounds on the extremities that are life-threatening and treat them.

Continue to Evaluate and Treat

- Maintain the casualty's airway
- Seal any open chest wounds
- Treat other wounds
- Administer pill pack
- Take measures to prevent shock

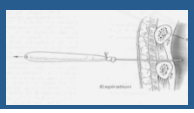
Communicate the Situation

Communicate the medical situation to the unit leader.

If needed, send a Soldier to seek a combat medic to provide medical treatment to the casualty.

Monitor the Casualty

- Recheck casualty's level of consciousness
- If needed, perform needle chest decompression
- Let the leader know if status changes



Prepare the Casualty for Evacuation

1. Record evaluation and treatment
2. Request MEDVAC
3. If MEDVAC not available, evacuate using CASEVAC
4. Continue to monitor

Closing

In a care-under-fire situation:

1. Take cover and return fire. Engaging the enemy may be the most valuable aid you can render the casualty at the time
2. Tell the casualty to perform self-aid

If you are going to the casualty

1. Plan your movements
2. If the casualty has severe bleeding from an extremity, quickly apply a tourniquet
3. Move the casualty and yourself to a place of safety

Continuously Re-Evaluate Your Casualties!!!!

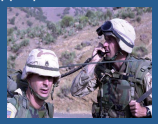
Tactical Field Care

Two circumstances under which tactical field care can occur:

- Previously a care-under fire situation where casualty has been moved to a safer location
- Casualty is found in a tactical field care situation

Inform Your Leader

- When you discover a casualty, communicate the situation to the unit leader as soon as you can
- Send someone to get a combat medic
- Keep the leader informed of the casualty's condition so he can make appropriate decisions



When you inform the squad leader about a casualty, he may instruct you to continue your combat assignment.

✓ A. True
✗ B. False

Check the Casualty for Responsiveness and Level of Consciousness

The AVPU system discussed in the previous lesson is used to determine the casualty's level of consciousness

Check the Casualty for Responsiveness and Level of Consciousness

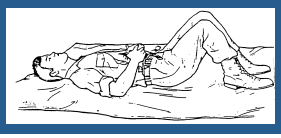
1. Gently shake or tap the casualty and ask "Are you Okay?"
2. Ask questions to determine if casualty is alert.
3. If casualty does not respond to questions, see if they will obey commands. If casualty obeys commands they are classified as verbal.
4. If casualty does not respond to commands, see if he is responsive to pain. If they respond they are classified as responsive to pain.
5. If casualty does not respond to any of the above they are classified unresponsive.

When would you not check the casualty's response to pain?

✗ A. When you don't want to hurt them
✗ B. When they are unresponsive
✓ C. When the casualty appears alert or verbal
✗ D. None of the above

Position the Casualty

Casualties should be positioned on their back. Placing them in this position will help you evaluate and treat the casualty.



Position the Casualty on His Back

Check for Major Bleeding of the Extremities

Check the casualty for amputation or severe bleeding from an extremity. Arterial bleeding from a limb is the leading cause of preventable death on the battlefield.

Amputation

If the casualty has an amputation of an extremity, apply a tourniquet about two inches above the amputation site. The casualty should be carrying a tourniquet in their IFAK.

The casualty has an amputation on part of his hand resulting in the loss of two or three fingers. Should you apply a tourniquet above his wrist?

- ✓ A. No, bleeding from the wound can be controlled by a pressure dressing or similar means.
- ✗ B. Yes, when there is an amputation you always apply a tourniquet

Severe Bleeding

Try to control major bleeding of an extremity using an emergency bandage from the casualty's IFAK, direct pressure, elevation, combat gauze or other means.

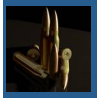
If these methods do not control the bleeding, apply a tourniquet two inches above the wound to control the bleeding.

Check the Casualty for Breathing

- If the casualty is alert and not in respiratory distress, do nothing, but continue to monitor his breathing
- If the casualty is unresponsive, open the airway and perform rescue breathing
  - Insert a nasopharyngeal airway (if needed)

Check the Casualty for Open Chest Wound

A "sucking chest wound" can be caused by any object penetrating the chest cavity. Examples include knife blade, bullets or shrapnel.



Check for Other Wounds

Check the casualty for bleeding

1. Check behind the casualty's head and neck
2. Check behind the casualty's shoulders, back, thighs and legs

Check for Other Wounds

Control bleeding using an emergency bandage, combat gauze, direct pressure, and/or pressure dressing.

If bleeding from an extremity cannot be controlled using these methods, apply a tourniquet.

Check for Fractured Limbs

Some symptoms and signs of a fractured limb

- Part of the bone is sticking through the skin
- The casualty has pain, tenderness, swelling, and/or bruising
- One leg appears shorter than the other
- The casualty heard a "snapping" sound
- The casualty has difficulty moving a limb

Applying a Splint

Do not apply traction to a fractured limb. Splint the limb in the position it was found

CLS Splinting Rule of Thumb:
SPLINT IT THE WAY YOU FIND IT

A casualty may have a fractured arm or leg. Should you ask the Soldier to move his limb to see if it is fractured?

✗ A. Yes
✓ B. No

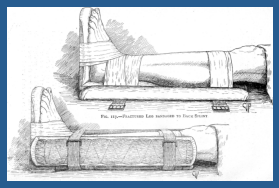
A Soldier has a badly injured arm or leg, but the limb is not fractured. After you dress and bandage the injury, what can you do to help lessen the pain from the wound?

✗ A. Apply a tourniquet
✓ B. Apply a splint to the injured limb
✗ C. Lower the injured arm or leg

Applying a Splint

- Immobilize the joint above and below the fracture site, when possible
- Place padding between the rigid object and the casualty's limb. The casualty's shirt sleeve or pant leg can serve as padding
- Do not tie a cravat directly over the fracture

Applying a Splint



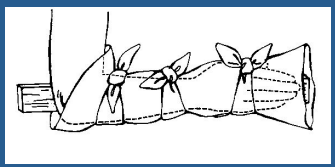
I detect signs of poor circulation such as coolness, numbness, or lack of pulse? What should I do next?

✗ A. Loosen the securing materials
✗ B. Make sure the ends of the rigid objects are not interfering with blood circulation
✗ C. Retie the cravats
✓ D. All of the above

What would I do if this did not restore circulation?

✓ A. Evacuate the casualty as soon as possible
✗ B. Administer the pill pack
✗ C. Reposition the extremities

Applying a Splint to a Fractured Forearm



Administer Pill Pack

If the casualty has suffered a wound or fracture, administer the casualty's combat pill pack. Have the casualty take all four tablets with water from his canteen.

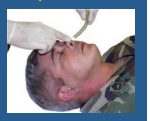
The pack contains pain medication and antibiotics to help control infection

Whose combat pill pack do you administer?

- ✗ A. The combat pill pack from your own first aid kit
- ✗ B. The combat pill pack from the combat lifesaver bag
- ✓ C. The combat pill pack from the casualty's own first aid kit

Monitor the Casualty's Respirations

1. If a casualty becomes unconscious or his breathing rate drops below two respirations every 15 seconds, insert a nasopharyngeal airway.



2. If the casualty has a sucking chest wound and his breathing becomes faster and more labored, perform needle chest decompression.

Monitor the Casualty's Wounds

1. If a tourniquet has been applied, make sure that arterial bleeding is still being controlled.
2. If a pressure dressing has been applied but is not controlling bleeding, apply a tourniquet.
3. Recheck every time you move the casualty.

Prepare the Casualty for Evacuation

A casualty with a wound that threatens the casualty's limb or life should be evacuated as soon as possible. If medical help is not available, you will need to prepare the casualty for evacuation.

Document the casualty's condition and treatment they have received.

Prepare the Casualty for Evacuation

Request evacuation by medical ambulance, if possible. A medical evacuation vehicle will have medical personnel to care for the casualty during transport.

Prepare the Casualty for Evacuation

If the casualty is to be transported by CASEVAC means, use manual carries, litters, or nonmedical vehicles to transport the casualty to a medical treatment facility or collection point.

If you accompany the casualty during evacuation, continue to monitor the casualty during transport.

Evacuating a Casualty Using Standard Litter

If you are to be the leader of a litter team, position yourself at the casualty's right shoulder. This is the best position to monitor the casualty while transporting the casualty by litter.

Closing

In tactical-field-care situation, you have time to render needed care to the casualty. This includes:

- Determining the casualty's level of consciousness.
- Controlling bleeding.
- Ensuring the casualty is breathing adequately.
- Sealing any open chest wounds.
- Applying splints, if needed.
- Treating for shock/taking measures to prevent shock.
- Preparing the casualty for evacuation.

Controlling Bleeding without a Tourniquet

The leading preventable cause of death on the battlefield is bleeding from an extremity.

In this lesson, we will cover controlling bleeding in tactical field care.

Expose the Wound

Expose the wound by pushing or cutting away loose clothing around the casualty' s wound.

Clothing or anything else stuck to the wound should be left alone to avoid further injury. Cut or tear around the stuck material so that the stuck material remains undisturbed.

In a chemically-contaminated environment, what should I do?

- ✗ A. Make sure to remove clothing and apply emergency bandage directly to the wound
- ✓ B. Do not expose the wound. Apply the emergency bandage over the protective clothing
- ✗ C. Remove the clothing and clean the wound before it becomes more infected

Expose the Wound

You should NOT

- Clean the wound
- Probe the wound
- Remove the shrapnel or missile from the wound
- Remove an object impaled in the wound

How should you treat a casualty who has a protruding object from their exposed wound?

- ✗ A. Use your knife to cut the portion of the object that is sticking out of the wound
- ✓ B. Apply an improvised bulky dressing around the object to stabilize it. Apply a supporting bandage over the bulky materials to hold them in place
- ✗ C. Clean the wound to ease some of the pain

Check for Entrance and Exit Wounds

Examine the casualty to determine if there is more than one wound.

An exit wound is usually larger than an entrance wound. Both wounds need to be bandaged.

Apply an Emergency Trauma Bandage to the Wound

The Emergency Trauma Bandage can be used on any bleeding wound. It can be used both as a field dressing and as a pressure dressing.

Applying an Emergency Trauma Bandage

Applying an Emergency Trauma Bandage

The Emergency Trauma Bandage can be used as a pressure bandage. Yet some wounds, like a minor cut or a head wound, do not require a pressure dressing.

Apply Combat Gauze to the Wound

Combat Gauze is a 3-inch by 4-yard roll of gauze that is impregnated with an agent that will cause blood to clot when it comes into contact with the gauze.

Combat Gauze

HEMCON

Chitosan HCD

Porcine Abdominal Aorta Punch

Applying Combat Gauze to the Wound

Once the Emergency Bandage has been applied, use your hand to apply pressure over the wound. This will help control the bleeding.

Also apply a pressure dressing to help control the bleeding and to keep the Combat Gauze in place.

Use the casualty's combat gauze before the packs in your CLS aid kit.

Applying Combat Gauze

Applying Manual Pressure

Apply direct pressure over the wound with your hand after you have applied the gauze. This pressure will help to compress the damaged blood vessels and control the bleeding. Usually manual pressure should be maintained for five to ten minutes.

If a casualty is conscious and is able to follow instructions, have him apply manual pressure to the wound while you perform other care (splint the casualty's leg, take care of a more seriously injured soldier first, etc…)

Pressure Dressing

If you have applied an Emergency Trauma Bandage and blood continues to seep from the dressing even after manual pressure, tighten the Emergency Bandage so that it acts as a pressure dressing.

If needed, apply an improvised pressure dressing to the wound to control arterial bleeding.

Applying an Improvised Pressure Dressing

What is NOT an indication that the pressure dressing is too tight?

- ✗ A. The skin below the pressure dressing becomes cool to the touch
- ✓ B. You can slip the tip of one finger under the dressing
- ✗ C. The skin below the pressure dressing becomes numb
- ✗ D. The pulse below the pressure dressing is no longer present
- ✗ E. All of the above

What can you do if the pressure dressing is cutting off the blood circulation?

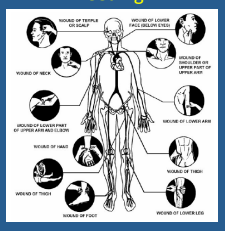
- ✗ A. Remove the pressure dressing
- ✗ B. Replace the pressure dressing with a new one
- ✓ C. Loosen and retie the cravat

Applying Digital Pressure

-Digital pressure can be used to help stop bleeding after the pressure dressing has been applied, or as an emergency measure when a pressure dressing cannot be used (such as the pressure points referenced on the next slide).

-While the term "digital" pressure is used, some of the techniques may require you to use the heel of your hand or your knee in order to generate enough pressure to control blood flow through the artery.

Using Pressure Points to Control Bleeding



Applying a Tourniquet

A tourniquet is a constricting band placed around an extremity to stop arterial bleeding by stopping blood circulation to the part of the limb below the tourniquet. A tourniquet is only used on an extremity when there is a danger of the casualty bleeding to death.

DO NOT apply a tourniquet to the head, neck, chest, or abdomen.

When to Apply a Tourniquet

Bleeding from a major artery of the thigh, lower leg, arm, or forearm or bleeding from multiple arteries may prove to be beyond control of methods such as Emergency Bandage, Combat Gauze, and pressure dressing.

If you have applied a pressure dressing and firm hand pressure and the dressing has become soaked with blood and the wound continues to bleed, you should apply a tourniquet.

Applying a Tourniquet

A person who has suffered an amputation requires a tourniquet, even if the amputation site does not appear to have severe bleeding. The lack of bleeding is due to the body's normal defenses to control bleeding. However, severe bleeding will start when the blood vessels relax or the clot is knocked loose. Remember, use of a tourniquet does not necessarily mean the loss of the limb it's tied to.

Applying A Combat Application Tourniquet

A Combat Application Tourniquet (CAT) is the tourniquet of choice. It is effective and can be applied quickly. Use the CAT from the Soldier's IFAK, if possible.

Applying A Combat Application Tourniquet

The one handed application is normally used when the CAT is applied to the arm or forearm.

Applying a Combat Application Tourniquet

The two handed application is normally used for the leg or thigh because greater pressure is needed to stop the bleeding. Always use the two-handed application when applying the tourniquet to the thigh.

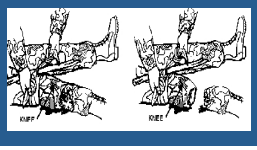
A difference between the one-handed and two-handed application is that in the two-handed application, both slots of the friction band are used.

- ✓ A. True
- ✗ B. False

Storing the Combat Application Tourniquet

Applying an Improvised Tourniquet

Your supply of CATs is limited. If you need to apply a tourniquet and do not have a CAT available, you can apply an improvised tourniquet. To minimize skin damage, ensure that the improvised tourniquet is at least two inches wide.



Preparing an Improvised Tourniquet

- A tourniquet band: Muslim bandage, belt, LBE strap. *Do NOT use wire or shoe string*
- A windlass (rigid object) to twist and tighten the band: Stick, tongue depressors, cleaning rod
- Securing material to secure the rigid object and keep it from untwisting: tape, cravat

Can I use a wire or thin material such as a strong shoestring as the tourniquet band?

- ✗ A. Yes
- ✓ B. No

Tape from the aid bag, strips of cloth, the strap from load bearing equipment and roller gauze can all be used as a securing material other than a cravat.

- ✓ A. True
- ✗ B. False

Applying an Improvised Tourniquet

Applying an Improvised Tourniquet

- Put on gloves
- Straighten the casualty's clothing to serve as padding
- Place the tourniquet band material (cravat) around the tourniquet site
- Tie the band with a half-knot (the first part of tying a shoe)
- Place the windlass on top of the half-knot
- Tie a full knot (square knot) over the windlass

Applying an Improvised Tourniquet

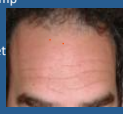
- Twist the windlass until the bright red bleeding has stopped and the pulse below the tourniquet band is absent
- Wrap the securing material around the limb and tie the tails around the windlass so that the tourniquet band will not unwind
- Tie the tails of the securing material in a nonslip knot
- Check the bleeding and pulse below the tourniquet band

If blood flow cannot be stopped by a tourniquet, apply a second one.

- ✓ A. True
- ✗ B. False

After Applying a Tourniquet

1. Write a "T" and the time of application on the casualty's skin with an indelible marker.
2. Dress and bandage any amputation stump
3. Monitor the casualty to make sure the bleeding remains controlled
4. Record the application of the tourniquet on the casualty's Field Medical Card or Tactical Casualty Care Card
5. Prepare the casualty for evacuation



DO NOT cover the tourniquet. Leave it in full view so medical personnel can locate it quickly.

I have applied a tourniquet to the casualty's limb, and the bleeding is now controlled. Should I clean out the casualty's wound?

- ✗ A. Yes
- ✓ B. No

I apply a dressing and bandage to the stump of an amputee because it helps prevent additional contamination of the wound, and helps to prevent additional injury to the wound.

- ✓ A. True
- ✗ B. False

Treat the Casualty for Shock

Hypovolemic shock

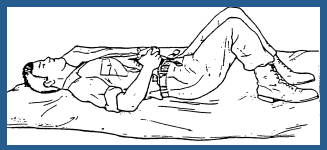
- Sudden decrease in fluid circulating in system
- Blood Loss due to internal bleeding
- Burns

Treat the Casualty for Shock

Signs and Symptoms of Shock

- Sweaty but cool (clammy) skin, pale skin color, and/or blotchy or bluish skin around the mouth
- Nausea
- Anxiety
- Decrease in the casualty's level of consciousness (such as mental confusion or unconsciousness)
- Increased breathing rate
- Unusual thirst

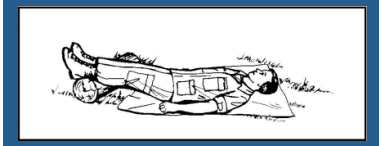
Position the Casualty for Shock



What could I do if the weather is hot?

- ✗ A. Move the casualty to shade
- ✗ B. Improvise shade using a poncho and sticks
- ✗ C. Fan the casualty to promote cooling by the evaporation of perspiration
- ✓ D. All of the above

Placing a Casualty in the Shock Position

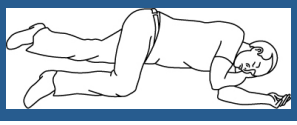


If the weather was cold, you should cover the casualty with a blanket, poncho, or ready heat blanket or other available materials to keep them warm and dry.

- ✓ A. True
- ✗ B. False

Placing a Casualty in the Recovery Position

If the casualty is unconscious, there is too great a danger that the casualty will inhale his own vomit if placed in the shock position. For an unconscious casualty, the recovery position is used.



What should you do when placing a casualty with a head wound in the recovery position?

- ✓ A. Position the casualty with his head wound facing up
- ✗ B. Do not put the casualty in the recovery position and leave him on his back
- ✗ C. Place the wound side down, as the pressure of resting it on the ground will stop the bleeding

Placing a Casualty in the Recovery Position

If the casualty in the shock or recovery position begins to vomit, quickly turn his head to the side and perform a finger sweep to clear the material from his airway.

Monitor the Casualty

If you remain with the casualty, keep checking on the casualty's condition.

Check the casualty's level of consciousness every 15 minutes. A decrease in AVPU status could indicate that the casualty's condition is becoming

Closing

Controlling bleeding from a wound on an extremity is an important life-saving skill, especially the skill to properly apply a tourniquet. Remember

1. A tourniquet is only applied to an arm, forearm, thigh, or leg
2. The tourniquet must be tight enough to shut down bleeding from the artery
3. The tourniquet must be high enough above the amputation so that it will not slip off
4. The tourniquet band is NOT placed over a joint or over a fracture site

Lesson 5
Opening and managing a casualty's airway

Checking an Airway

Move to safety first. Only take measures to restore respiration in a tactical field care situation or other situation where you are not in immediate danger from hostile action.

Check the Casualty for Responsiveness and Level of Consciousness

Check the casualty for responsiveness. Determine the casualty's level of consciousness using the AVPU scale.

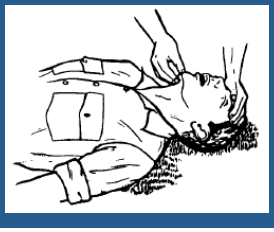
Turning a Casualty Onto His Back

If the casualty is not lying on his back, turn him onto his back. The supine position will allow you to better evaluate the casualty and provide rescue breathing, if needed. Position the casualty's arms by the side.

Open the Casualty's Airway (Head-Tilt/ Chin Lift)

- The tongue is the most common cause of an airway obstruction
- When a casualty is unconscious, muscles relax. This relaxation may cause the tongue to slip to the back of the mouth and block the airway

Head-Tilt/Chin-Lift



I take special care to make sure the casualty's mouth is NOT completely closed because..

- ✗ A. I don't need to do this because closing his mouth doesn't interfere with his breathing
- ✗ B. I need to insert an oropharyngeal airway
- ✓ C. I need to watch his tongue and make sure it does not block his airway

You have positioned an unconscious casualty on their back. No major wounds or neck trauma are noted, but they are not breathing. What is the FIRST thing you should do?

- ✓ A. Open airway using the head-tilt/chin-lift procedure
- ✗ B. Insert a nasopharyngeal airway
- ✗ C. Perform a jaw-thrust procedure
- ✗ D. Begin rescue breathing

After using the head-tilt/chin-lift, the casualty suddenly begins breathing on their own. What most likely happened?

- ✗ A. You are just that good
- ✓ B. The casualty's tongue was blocking the airway, and by tilting the head, the tongue was moved away from the windpipe allowing the casualty to breathe again
- ✗ C. You woke casualty from a good nap
- ✗ D. None of the above

Check the Casualty for Breathing

While maintaining the open airway, check the casualty to see if he is breathing on his own.

Place your ear over the casualty's mouth and nose and look toward the chest and abdomen.

a. Look to see if the casualty's chest rises and falls
b. Listen for air escaping during exhalation
c. Feel for the flow of air on the side of your face

Checking for Breathing

Determine Appropriate Action

If the casualty is conscious and breathing on his own, count the number of respirations for 15 seconds. If the casualty's respiration rate is:

- two breaths or more during the 15 seconds and his breathing sounds fairly normal, continue to check the casualty.
- less than two breaths in 15 seconds, a nasopharyngeal airway should be inserted.

- If the casualty's breathing makes snoring or gurgling sounds, a nasopharyngeal airway should be inserted and place the casualty in the recovery position.

I time the casualty' s breathing for 15 seconds and I only hear:
INHALE EXHALE INHALE. What should I do?

- ✘ A. Perform the head-tilt/chin-lift
- ✔ B. Insert a nasopharyngeal airway
- ✘ C. Insert an oropharyngeal airway and place the casualty in the recovery position

Determine Appropriate Action

If the casualty is unconscious and breathing, insert a nasopharyngeal airway.

If the casualty is unconscious and not breathing, check the casualty for open chest injuries. If there is an open chest wound, seal the open chest wound.

The casualty is breathing, but still unconscious. What should you do?

- ✘ A. Leave the casualty alone
- ✘ B. Still perform the head-tilt/chin lift procedure
- ✘ C. Perform the jaw thrust procedure
- ✔ D. Insert a nasopharyngeal airway

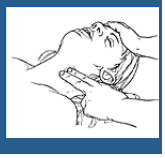
The casualty is conscious, but has slow breathing, say one respiration every 10 seconds. What should you do?

- ✔ A. Insert a nasopharyngeal airway since their respiration rate is less than two every 15 seconds
- ✘ B. Not do anything. The casualty is still breathing so there is no reason to disturb him
- ✘ C. Place casualty in recovery position

Determine Appropriate Action

If the casualty is unconscious, not breathing, and does not appear to have an open chest wound, check for a carotid pulse.

- If you can feel beats in the carotid artery, perform rescue breathing.
- If you cannot feel a pulse in the carotid artery, stop your rescue efforts.



Why would I check the carotid artery instead of another artery?

- ✘ A. It is stronger and easier to detect
- ✘ B. You will be in a good position to check the neck area
- ✔ C. Both A and B
- ✘ D. Neither A nor B

Checking the Carotid Pulse

Who would you NOT perform rescue breathing on?

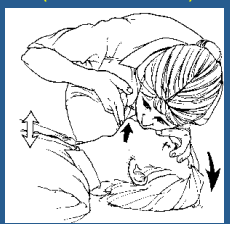
- ✘ A. The casualty who has called for assistance
- ✔ B. The casualty who does not have a carotid pulse
- ✘ C. The casualty who is unconscious and has a carotid pulse

Perform Rescue Breathing

Evaluation of the casualty shows:

1. The casualty is unconscious
2. The casualty is not breathing
3. The casualty does not appear to have an open chest wound
4. The casualty has a carotid pulse
5. There are no other casualties with life threatening conditions

Performing Rescue Breathing (mouth to mouth)



If rescue breathing was not effective, what should I do?

- ✗ A. Reposition the head-tilt/chin-lift to open the airway more
- ✗ B. Check and remove any foreign objects in the casualty's mouth
- ✗ C. Administer another full breath
- ✓ D. All of the above

I repositioned the head-tilt/chin lift and found no foreign objects in his mouth. When I performed the second ventilation, his chest still did not rise and fall. What would I do?

- ✗ A. Reposition the head and try again
- ✗ B. Keep trying to perform ventilation…I cannot leave any soldier behind no matter the extent of his injuries
- ✓ C. Stop my rescue efforts…there is a limit to how far a combat lifesaver's efforts can go

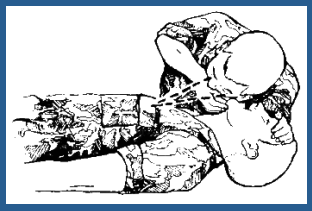
I found that the casualty had resumed breathing on his own after I administered rescue breathing for one minute. What would I have done if I found that the casualty had a pulse, but had not resumed breathing on his own?

- ✗ A. Stop my rescue efforts
- ✓ B. Continue administering rescue breathing
- ✗ C. Insert a nasopharyngeal airway

If the casualty is now breathing on his own, but is still unconscious, and I do not find any serious injuries, what should I do next if I were to monitor the casualty?

- ✗ A. Insert a nasopharyngeal airway
- ✗ B. Place the casualty in the recovery position
- ✓ C. Both A and B
- ✗ D. Neither A nor B

Student Practice



Insert a Nasopharyngeal Airway

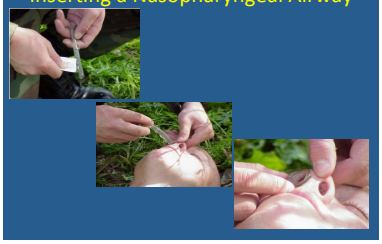
A nasopharyngeal airway helps to keep a casualty's airway open so that he can breath easily.

It also helps to keep the tongue from falling to the back of the mouth and blocking the casualty's trachea.

When would you insert a nasopharyngeal airway in a conscious casualty?

- ✗ A. When he is breathing on his own
- ✓ B. When his breathing rate is below two respirations every 15 seconds
- ✗ C. When his breathing rate is more than two respirations every 15 seconds

Inserting a Nasopharyngeal Airway



The preferred lubricant for a nasopharyngeal airway is water-based gel. If this gel is not available, what is the next PREFERRED substance for lubricating the NPA?

- ✗ A. My own saliva
- ✗ B. Saliva from the casualty's mouth
- ✗ C. Water from my canteen
- ✓ D. Water from the casualty's canteen

I inserted the tube in the casualty's right nostril. What would I do if the tube would not insert fully into the nostril?

- ✗ A. Keep trying, you may not have pushed hard enough
- ✓ B. Pull the tube out and attempt to insert it in the other nostril
- ✗ C. Cut off the end of the NPA to make it shorter for easy fit

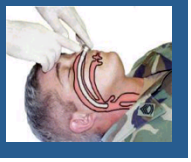
Are there any types of injuries which would prevent me from trying to insert a nasopharyngeal airway?

- ✓ A. Yes
- ✗ B. No

What types of injuries would prevent you from inserting a nasopharyngeal airway?

- ✗ A. History of head trauma
- ✗ B. Exposed brain matter
- ✗ C. Roof of the mouth is fractured
- ✗ D. Cerebrospinal fluid (CSF) leaking from the nose or ears
- ✓ E. All of the above

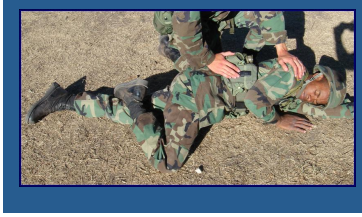
Student Practice



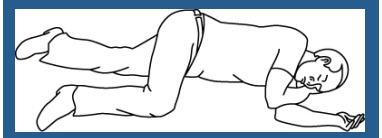
What should you do after inserting a nasopharyngeal airway in an unconscious casualty who is breathing adequately?

- ✗ A. Nothing; he is breathing adequately
- ✓ B. Place casualty in the recovery position
- ✗ C. Perform rescue breathing

Placing the Casualty in the Recovery Position



Student Practice



Closing

Opening the casualty's airway, performing rescue breathing, and inserting a nasopharyngeal airway are important tasks that can result in saving a casualty's life.

These tasks are performed only in a tactical field care situation or other situation where you are not under hostile fire.

Treating an Open Chest Wound

- Each lung is enclosed in a separate airtight area within the chest.
  - If an object punctures the chest wall allowing air to enter these areas, the lung on the side of puncture will begin to collapse.
- Any degree of collapse of either lung interferes with ability to breathe and reduces the amount of oxygen available for use by the body.

Signs and Symptoms of an Open Chest Wound

- Sucking or hissing sounds from the wound
- The casualty is coughing up blood
- Frothy blood is coming from the wound (caused by bubbles in the blood from mixing with air)
- Shortness of breath or difficulty breathing
- Abnormal appearance of the chest during breathing (likely from broken ribs)
- Pain in the shoulder or chest that increases with breathing
- Bluish tint to the casualty's lips, mouth, fingertips or nail beds (from decreased oxygen levels in blood)
- Signs of shock such as rapid and weak heartbeat

Check for Open Chest Wounds

- Check for both entry and exit wounds
- Open the casualty's armor and uniform to look for any penetrating wounds
- Look for a pool of blood under the casualty's back
- Use your hands to feel for wounds
- Treat multiple wounds in the order you find them

Expose the Open Chest Wound

- Expose the area around the open chest wound by removing, cutting, or tearing the clothing covering the wound.
  - Cut or tear around the stuck clothing. Attempting to remove clothing stuck to wound may cause additional pain and injury.

DO NOT try to clean the wound or remove objects from the wound.

Seal the Open Chest Wound

Seal the open chest wound with an airtight material to prevent air from entering the chest and collapsing the lung.

If you must improvise, be sure to use a non-porous seal to prevent air from entering.

You are treating a casualty with a sucking chest wound. No other chest wounds are discovered. What should you do FIRST?

✗ A. Turn him onto his side, so the wound can drain

✓ B. Seal the wound so that air cannot enter the chest through the wound

✗ C. Administer a chest needle decompression with 14ga needle

Treating an Open Chest Wound

- Obtain the casualty's emergency bandage package
- Cut four strips of tape of appropriate length (this step can be done at any time)
- Cut open one end of the plastic wrapper of the Emergency Trauma Bandage
- Remove the bandage and set it aside
- Cut around the edges of the plastic wrapper to form a flat surface

Treating an Open Chest Wound

- Edges of sealing material should extend at least two inches beyond the edges of the wound in all directions
- Have casualty exhale and hold their breath
- Place the inside surface of the plastic wrapper directly over the wound
- Tape down all four edges of the plastic wrapper to the casualty's chest

You have sealed a sucking chest wound. What should you do NEXT?

- ✓ A. Check for additional wounds and position the casualty with injured side down
- ✗ B. Move the casualty to another area
- ✗ C. Apply a tourniquet to severe extremity wounds

Why did I make sure that the sealing material would extend at least two inches beyond the edges of the wound in all directions?

- ✗ A. The wound will get bigger the longer the casualty has it
- ✓ B. If the material is too small, it could be sucked into the wound

Why did I have the casualty exhale and hold his breath before I applied the sealing material?

- ✓ A. This forces some of the air out of the chest wound
- ✗ B. It is easier to seal when the chest is deflated
- ✗ C. When the chest is exhaled you don't have to push as hard to seal, therefore you will not hurt the wound

What would I do if I found two open chest wounds, such as an entrance wound and an exit wound?

- ✗ A. Leave the entrance wound alone, by sealing the exit wound the other one will be fine
- ✓ B. Treat both the same way

Seal the Open Chest Wound

Do not remove an object that is protruding from the chest wound.

1. Place airtight material around the object to form as airtight a seal as possible.
2. Stabilize the object by placing a bulky dressing made from the cleanest material available around the object.
3. Apply improvised bandages to hold the sealing material and dressings in place. DO NOT wrap the bandages around the protruding object.

Position the Casualty with a Dressed Open Chest Wound

- Place a conscious casualty in the sitting position with their back supported or on side with injured side next to the ground.
- If a casualty wishes to sit up, make sure he has support against his back.
- Evacuate the casualty with the injured side down.

Position the Casualty with a Dressed Open Chest Wound

Place an unconscious casualty in the recovery position so that drainage or vomit can escape his mouth without being inhaled.

What is special about the way you place a casualty with an open chest wound in the recovery position?

- ✗ A. You place the casualty in the recovery position with the injured side away from the ground.
- ✓ B. You place the casualty in the recovery position with the injured side nearest the ground.

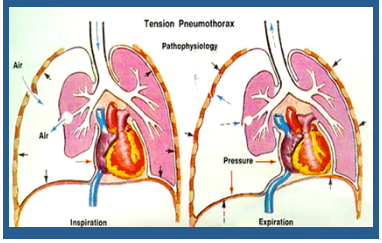
Why should the injured chest be placed in the lower position?

- ✗ A. Pressure from the ground will act like a splint
- ✗ B. The pressure will reduce the pain
- ✗ C. Less pressure on the uninjured lung will help it function better
- ✓ D. All of the above

Tension Pneumothorax

- **Pneumothorax** is a medical condition and potential emergency wherein air or gas is present in the space between the chest wall and the lung and the air cannot escape.
- A **tension pneumothorax** is a life-threatening condition that results from a progressive deterioration and worsening of a simple pneumothorax.

Tension Pneumothorax



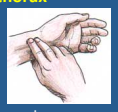
Signs and Symptoms of Tension Pneumothorax

- Anxiety, agitation, and apprehension
- Diminished or absent breath sounds
- Cyanosis

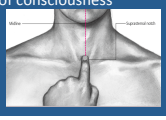
- Rapid shallow breathing
- Distended neck veins

Signs and Symptoms of Tension Pneumothorax

- Loss of radial pulse



- Cool, clammy skin
- Decreased level or loss of consciousness
- Visible deterioration



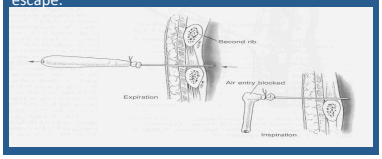
- Tracheal deviation

After you have sealed all of the open chest wounds, what complication should you be monitoring the casualty for?

- ✗ A. The seal coming undone
- ✓ B. Increased respiratory distress
- ✗ C. Decreased level of responsiveness
- ✗ D. B & C

Perform Needle Chest Decompression

The buildup of trapped air in the casualty's chest can be relieved by puncturing the air pocket with a needle and catheter unit and allowing the trapped air to escape.



Performing a Needle Chest Decompression

Obtain a large bore (14 ga) needle and catheter unit and strip of tape from your aid bag.

Performing a Needle Chest Decompression

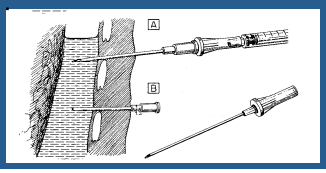
- Locate the insertion site The second intercostal space just above the third rib at the mid-clavicular line (injury side).

Performing a Needle Chest Decompression

- Firmly insert the needle into the skin at a 90 degree angle
- Insert the needle until the chest cavity is penetrated
- You will feel a "pop" as the needle enters the chest cavity

Performing a Needle Chest Decompression

Withdraw the needle while holding the catheter in place. Secure the catheter hub to the chest wall with tape.



Which of the following are indicators of a tension pneumothorax?

- ✗ A. Casualty has an open chest wound
- ✗ B. Casualty has increasingly progressive respiratory distress
- ✗ C. Casualty has distended neck veins
- ✗ D. Casualty has cool clammy skin
- ✓ E. All of the above

Why do you insert the needle just above the third rib instead of just below the second rib?

- ✗ A. Because the third rib sounds better
- ✓ B. To avoid damaging the blood vessels and nerves that run along the bottom of each rib
- ✗ C. The third rib is one of the easiest to visually locate

How do you know you have hit the air pocket in the chest?

- ✗ A. You feel a bump
- ✓ B. You feel a "pop" or hear air escaping

What do you do with the needle after you remove if from the catheter?

- ✗ A. Place it back in the package so that it can be used again
- ✗ B. Throw it on the ground
- ✓ C. Dispose of it so that it does not injure other Soldiers

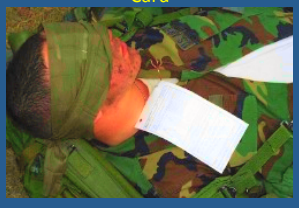
Perform Needle Chest Decompression

- If possible, monitor the casualty until medical care arrives.
- When the casualty is evacuated, he can be positioned on his side with the injured side down.
- Place the casualty in a sitting-up supported position if he finds that position more comfortable.

Closing

A chest wound that allows air to enter the chest is a danger to the respiratory system. Placing an air-tight seal over the wound helps to keep air from entering the chest area. If respiratory distress is noted, perform a needle chest decompression to relieve the pressure.

Lesson 7
Initiating a Field Medical Card or TCCC Card



Purpose of the US Field Medical Card (DD Form 1380)

- Provides medical personnel with essential information about the casualty's injury and treatment given
- Used in forward combat areas by North Atlantic Treaty Organization (NATO) troops
- Instructions in French and English
- Prepared on any casualty treated within a theater of operations

Field Medical Card Pad

Field Medical Cards are issued in pads containing 10 sets. A set consists of an original card with attached wire, a protective sheet, and a duplicate paper form.

The front side of the card has areas for the casualty's ID, a description of the injury or illness, and treatment rendered.

Initiating a Field Medical Card

The FMC is usually initiated by the combat medic. However, the combat lifesaver can initiate the Field Medical Card if no combat medic is available or if the combat medic directs the combat lifesaver to initiate the card.

Block 1

1. LAST NAME, FIRST NAME / NOM ET PRENOM	RANK/GRADE		MALE / HOMME
Smith, John	SGT		FEMALE / FEMME
SSN / NUMERO MATRICULE	SPECIALTY CODE / GPM		RELIGION / RELIGION
123 45 6789	11 B		Religio

Name Enter casualty's name in last name first name middle initial format

Rank Enter abbreviation of casualty's rank (SGT CPT)

SSN Enter Casualty's social security number. If the casualty is a member of a foreign military or prisoner of war enter military service number instead. Leave blank if not in military

MOS Enter casualty's military occupation specialty (MOS) code if enlisted or area of concentration (AOC) if an officer in the box titled "SPECIALTY CODE/GPM"

Sex Mark the appropriate box to the left of "MALE / HOMME" "FEMALE / FEMME

Religion Enter the casualty's religious preference in box titled "RELIGION"

Block 3

If casualty is suffering trauma (battle casualty) mark box "BC/BC"

If nuclear biological or chemical casualty mark box "NBC/NBC"

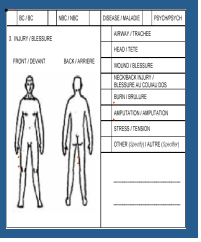
If casualty is ill and is not class fiable as one of the other three categories mark box "DISEASE/MALADE"

If casualty is suffering from combat stress or other psychological injury mark box "PSYCH/PSYCH"

Mark figures to show location of injuries (entry and exit)

Mark appropriate box or boxes to describe casualty's injuries

If "OTHER" is marked explain injuries



Block 4

4. LEVEL OF CONCIOUSNESS / NIVEAU DE CONSCIENCE	
ALERT / ALERTE	PAIN RESPONSE / REPONSE A LA DOULER
VERBAL RESPONSE / REPONSE VEBALE	UNRESPONSIVE / SANS REPONSE

Check appropriate box for level of consciousness

AVPU system

Block 9

9. TREATMENT/OBSERVATIONS/CURRENT MEDICATIONS/ALLERGIES/NBC (ANTIDOTE) TRAITEMENT/OBSERVATIONS/PRESENTE MEDICATION/ALLERGIES/ANTIDOTES
Tourniquet applied to R leg above knee @ 1424. IV (Normal Saline) L forearm, 16ga, wide open. Bandage applied over stump. Pt. states allergy to PCN.

Enter a brief description of the treatment given

Use approved abbreviations f possible

If needed use block 14 for additional space

Block 11

11. PROVIDER/UNIT / OFFICIER MEDICALE/UNITE	DATE/DATE (YYMMDD)
MN	

Enter your initials (not your name) in the far right of the signature box of Block 11

This will let medical personnel know who initially treated the casualty and still leave room for the medical officer to sign the card

Secondary Information (Front of Form)

If you have time, you can also fill out some of the other blocks on the front of the form after you have filled in the primary five blocks

Block 2

2. UNIT / UNITE	A Co. 187th Med Bn	
FORCE / ELEMENT		NATIONALITY / NATIONALITÉ
A/T	AF/A	N/M	MC/M	USA

Enter the casualty's unit

Enter the casualty's country, for example "USA"

Check the appropriate armed service element. Mark the "A/T" box for Army, "AF/A" for Air Force, "N/M" for Navy, and "MC/M" for Marine Corps

Block 5/6

5. PULSE / POULS	TIME / HEURE	6. TOURNIQUET / GARROT	TIME / HEURE
		NO / NON YES / OUI	07 01/30 14:24

Skip Block 5 since you have not been taught to take an accurate pulse and record it properly

BLOCK 6: If a tourniquet was applied, mark the YES block. If not applied, leave blank

If you checked "YES", enter date in YY/MM/DD format and the time in 24-hour time that the tourniquet was applied

Block 7

7. MORPHINE / MORPHINE NO / NON YES / OUI	DOSE / DOSE	TIME / HEURE	8. IV / IV	TIME / HEURE

Skip this block

Used by Combat Medic to record the administration of Morphine

Block 8

7. MORPHINE / MORPHINE NO / NON YES / OUI	DOSE / DOSE	TIME / HEURE	8. IV / IV	TIME / HEURE
			N S	07/01/30 14 27

If an intravenous infusion (IV) has been initiated

Write the type of IV fluid (Normal Saline) in the "IV/IV" box

Write the date and time that the IV solution was begun in the "TIME/HEURE" box. Write the date in YY/MM/DD format and the time in 24-hour time format

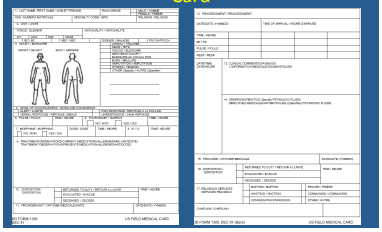
Block 10

10. DISPOSITION / DISPOSITION		TIME/HEURE
	RETURNED TO DUTY/RETOUR A L'UNITE	
	EVACUATED/EVACUE	
	DECEASED/DECEDE	07/01/30 14:40

Check the box in front of the appropriate disposition (Return to Duty or Evacuated)

Enter the date (YY/MM/DD) and time (military) of the disposition in the "TIME/HEURE" box

Initiating and Attaching a Field Medical Card



Student Practice

To attach a FMC I should thread the wire through the front belt loop of uniform and then twist the wire. I should then position the card so that it is in plain view.

- ✓ A. True
- ✗ B. False

You treat an injured Soldier, then return him to duty instead of evacuating him. What should you do with the FMC that you initiated on the Soldier?

- ✗ A. Attach it to the Soldiers belt loop
- ✗ B. Leave it in the pad
- ✓ C. Have the Soldier keep the FMC in his pocket in case he gets hurt

Tactical Combat Casualty Care Card

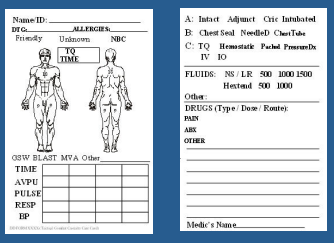
- Each Soldier will carry his own TCCC card in his personal first aid kit.
- The Soldier should complete the Name/ID section and the Allergies section on his card before placing it in his kit.

Completing the TCCC Card

- If possible, use a permanent marker to make entries on the card. Include as much information as you can on the card
- Circle the intervention you performed on the card
- Mark an X on the casualty at the injured sight
- Record any vital signs you were able to obtain from the casualty
- Write notes or explanations in the remarks box
- Sign the card

- **If an item is not known, leave the box blank.**

Student Practice



Attach the Card

Attach the TCCC card to the casualty or place the card in the upper left sleeve or the left trouser cargo pocket of the casualty's clothing

Closing

We have covered filling out the Field Medical Card and the Tactical Combat Casualty Care Card in preparation for evacuating the casualty.

Lesson 8
Requesting Medical Evacuation

MEDEVAC

Medical Evacuation (MEDEVAC) is the movement of wounded, injured or ill persons to medical treatment facilities by air or ground ambulances. During evacuation, casualties receive care from medical personnel, usually combat medics, who are assigned to the ambulance.

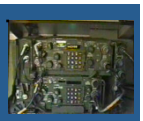
CASEVAC

CASEVAC is when nonmedical vehicles, such as a truck used to haul supplies or transport troops, are used to transport casualties.

Medical Evacuation

During CASEVAC, the combat lifesaver may be told to accompany the casualties to monitor and provide care.

MEDEVAC Request



- Transmitted over radio
- Makes transmission of information faster, clearer, and more accurate
- Same format for both air and ground evacuation
- Helps medical units determine correct priority for committing evacuation assets
- Helps to ensure that the casualty receives appropriate evacuation

Overclassification

- A tendency to classify a wound or injury as being more severe than it actually is
  - Proper classification is needed to ensure that those casualties in greatest need are evacuated first and receive the care necessary for their survival
- MEDEVAC casualties are picked up as soon as possible considering available resources and pending missions

Preparing a Medical Evacuation Request

- A special 9 line format used to request medical evacuation
- Instead of stating what type of information is being transmitted, a line number is given
- Brevity codes are used to identify specific information being transmitted
- Prowords are used to shorten transmissions
- The information is always transmitted in sequence
- There are two MEDEVAC request formats, one for combat and one for peacetime

The MEDEVAC request has nine lines, but not all of the lines have to be transmitted before the ambulance is sent. Which lines must you transmit before the ambulance begins its mission?

✘ A. Line 1 only
✓ B. Line 1 through Line 5
✘ C. Line 5 through Line 9
✘ D. Line 4 through Line 7

Line 1: Location of the Pickup Site

Line 2: Radio Frequency, Call Sign and Suffix

Needed for ground contact.

These can all be obtained from the signal operating instruction (SOI) or from the Automated Net Control Device (ANCD) or from the radio supervisor.

Line 3: Number of Casualties by Precedence

The following EVAC categories, based upon medical triage, are used to prioritize missions when multiple requests are received:

1. Urgent
2. Urgent Surgical
3. Priority
4. Routine
5. Convenient

A Soldier suffered a broken bone in his forearm from a fall. You have applied a splint to the injured arm and the casualty does not have circulatory or respiratory problems. The casualty will be evacuated. How should you classify the casualty?

✘ A. Urgent
✘ B. Urgent Surgical
✘ C. Priority
✓ D. Routine
✘ E. Convenient

Line 4: Special Equipment Required

Determine what special equipment, if any, will need to be placed aboard the EVAC platform before it begins the mission.

Line 5: Number of Casualties by Type

Determine the number of casualties that will be evacuated on a litter and the number that are ambulatory.


Line 6: Security of Pickup Site

This information will help the unit controlling evacuation to determine whether the EVAC platform needs a military escort.

1. No enemy troops in area
2. Possible enemy troops in area: approach with caution
3. Enemy troops in area: approach with caution
4. Enemy troops in area: armed escort required

Line 7: Method of Marking Pickup Site

- Determine how the pickup site should be marked for identification. Common methods are

1. Panels
2. Pyrotechnic signal
3. Smoke signal
4. Signal person
5. Strips of fabric or parachute
6. Tree branches, pieces of wood, or stones placed together
7. Signal lamp, flashlight, or vehicle lights
8. Open flame

** DO NOT transmit marking colors Until requested by air ambulance. **





Why shouldn't you tell the helicopter pilot what color smoke you are going to use?

- ✗ A. They already have enough information to remember
- ✓ B. The enemy may be listening to your conversation and use that color to lure the helicopter into an ambush
- ✗ C. You don't have enough time to transmit that information

Line 8: Casualty Nationality and Status

Determine what category or categories represent the casualties. The categories are:

1. United States Military
2. United States Civilian
3. Military other than US
4. Civilian other than US
5. Enemy prisoner of war (EPW)

Line 9: Nuclear, Biological, and Chemical Contamination

Determine if there is chemical, biological, or radiological contamination present at the pickup sight. If there is no chemical, biological or radiological contamination present this line is not transmitted.

Student Practice

TYPE OF INFORMATION	INFORMATION	TRANSMITTED REMARKS: (SPECIAL INSTRUCTION)
Location of Pickup Site	Line 1 Grid coordinates of pickup site	To preclude misunderstanding, a minimum of four digit grid zone letters are included in the message
Radio Frequency, Call Sign and Suffix	Line 2 Frequency of the radio at the pickup site Call sign and suffix	The call sign (and suffix, if used) of the person to be contacted at the pickup site.
Number of Casualties by Precedence	Line 3 Number of casualties Brevity code	Brevity Codes: A (Urgent) B (Urgent surgical) C (Priority) D (Routine) E (Convenience) If two or more categories must be reported in the same request, insert the present BREAK between each category.
Special Equipment Required	Line 4 Brevity code	Brevity Codes: A (None) B (Hoist) C (Extraction equipment) D (Ventilator)
Number of Casualties by Type	Line 5 Number of casualties Brevity code	Brevity Codes: L (Litter) A (Ambulatory) If both types are included in the same request, insert the present BREAK between the types.

TYPE OF INFORMATION	INFORMATION	TRANSMITTED REMARKS: (SPECIAL INSTRUCTION)
Security of Pickup Site (wartime)	Line 6 Brevity code	Brevity Codes: N (No enemy troops in area) P (Possible enemy troops in area: approach with caution) E (Enemy troops in area: approach with caution) X (Enemy troops in area, armed escort required)
Methods of Marking Pickup Site	Line 7 Brevity code	Brevity Codes: A (Panels) B (Pyrotechnic signal) C (Smoke signal) D (None) E (Other)
Casualty Nationality and Status	Line 8 Brevity code	Brevity Codes: A (Military, U.S) B (Civilian, U.S) C (Military, non-US) D (Civilian, non-US) E (Enemy prisoner of war) The number of casualties in each category is not transmitted.
NBC Contamination (wartime)	Line 9 Brevity code	Brevity Codes: N (None) B (Biological) C (Chemical) This line is included only when applicable. Do not transmit line 9 if no CBR contamination is present

Transmitting Rules

- Do not transmit on a directed net without permission
- Do not transmit if you are under radio silence
- Do not engage in unofficial conversation
- Do not engage in excessive tuning and testing
- Do not transmit your personal sign or name

Transmitting a Medical Evacuation Request

Collect information- make sure to do this before beginning the transmission.

Begin Transmission:

1. Say : " I have a MEDEVAC request. Over"
2. Break for acknowledgement by receiving operator

Transmitting a Medical Evacuation Request

Transmit the MEDEVAC request using appropriate procedures:

1. Use the appropriate prowords and codes
2. Give the line number identifier followed by applicable information
3. Use phonetic alphabet

Transmitting a Medical Evacuation Request

End Transmission- After transmitting the request, state " OVER " and wait for acknowledgement of the transmission or request for additional information from the receiving station.

Monitor Frequency- After the transmission has ended, monitor the frequency given in line 2 of the request. The air or ground ambulance will contact you on this frequency, if needed.

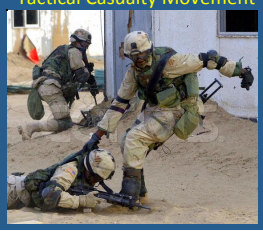
Prepare Site-Prepare and mark the pickup site as indicated in line 7 of the MEDEVAC request, if needed.

Student Practice

Closing

Now that you have requested a medical evacuation, you need to get the casualty to the pickup site.

Lesson 9
Tactical Casualty Movement



Movement to Safety Under Fire

- Moving a casualty to safety is an important aspect of providing care on the battlefield.
- If you are under enemy fire and the tactical situation allows, attempt to control life threatening bleeding by applying a tourniquet. Then quickly move yourself and the casualty to a location where you can safely administer additional care.

Movement to Safety Under Fire

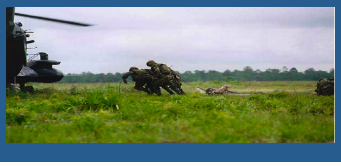
- You should develop a plan for moving the casualty and yourself to a safe location BEFORE you attempt to rescue the casualty
- Good Medicine can be bad tactics
- Open areas may be under enemy observation

Movement Techniques

- If the casualty is able to move to a safe location under his own power and perform self-aid, a rescue attempt is not necessary.

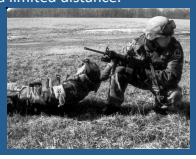
Manual Drags

Drags are techniques for moving a casualty for a short distance.



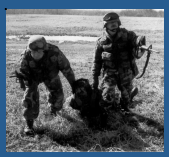
One Person Drag

This technique provides a lower profile for both the rescuer and the casualty. Because it consumes high levels of energy it can only be used for a limited distance.



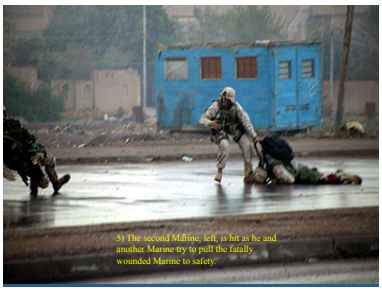
Two Person Drag

This is a much easier technique for rescuers and moves much more quickly, but exposes the rescuers to a higher profile than does the crouch technique.



Disadvantages of Manual Drags

1. Require significant strength to drag a fully combat loaded Soldier any distance. They are only used for short distances
2. The rescuer may display a larger profile than to the enemy
3. Bending over to grasp a casualty may displace the rescuers body armor and expose more of his torso to small arms fire and fragmentation wounds
4. There is no optimal place to grip the casualty to begin the drag



Class Discussion

- Based on this actual scenario, what other courses of action could you have taken?

Specialized Drag Equipment

Dragon Harness

- Worn under the individual's body armor.
- Encircles the individual's torso and lower extremities.
- Two handles are rolled and stored behind the casualty's neck, ready to be unrolled and grasped for movement of the casualty.



Specialized Drag Equipment

Dragon Handle: Is a drag strap that can be attached to a down casualty.

Attach the snap link to the Soldier's body armor or wrap it around their lower extremities.

Specialized Drag Equipment

Rescue Assault Tether (Rat Strap): Attached to a casualty by means of a snap link and connected to the rescuers belt by a quick release buckle. This device leaves the rescuer's hands free to utilize his weapon while simultaneously dragging the casualty to safety.

How is the Dragon harness drag different from the Rat strap drag?

- ✗ A. The Soldier applies the Rat strap to himself before he goes on the mission
- ✓ B. The Soldier applies the Dragon harness to himself before he goes on the mission
- ✗ C. The Rat strap is black and the Dragon harness is green

Specialized Drag Equipment

Drag Litters: A device used to facilitate casualty movement. Greatly decreases the friction of dragging a casualty over the ground.


Manual Carries

Hawes Carry:
The primary one-person carry

Student Practice (Hawes Carry)

Manual Carries

Two-Person Supporting Carry - Two rescuers grasp the casualty's wrists over opposite shoulders, lean forward and lift the casualty to move him.

Other Carries

Other one-person and two-person carries can be used. Selection must be based on the tactical situation, and the rescuers must have practiced the manual carries before using them.

The main reason that the Hawes carry has replaced the fireman's carry as the preferred one-person carry is due to the increased weight of the Soldier's equipment.

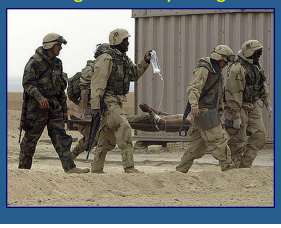
✓ A. True
✗ B. False

Closing

In most tactical casualty movement situations, the combat lifesaver needs to move the casualty to safety before giving care.

This lesson has identified several different methods of tactical casualty movement that may assist you in moving injured Soldiers to safety.

Lesson 10
Evacuating a Casualty Using a Litter



Evacuation

SKED Litter: A compact and lightweight litter can evacuate a casualty on land or water.

Using a SKED Litter

Student Practice

Talon Litter

The Talon litter: A compact folding litter whose small size allows it to fit into vehicles easier than a conventional litter.

Position of Leader

- During a four person litter carry, the Senior Medical Provider (leader) is positioned at the casualty's right shoulder
- In the absence of a medic, that Senior Medical Provider will be the combat life saver

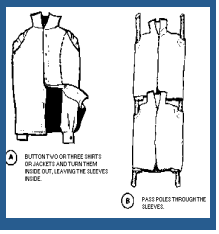
Student Practice (Talon Litter)

Long Spine Boards

If the casualty has a suspected head, neck, or back injury, a long spine board should be applied to the casualty before the casualty is placed on the litter.

Improvised Litters

There are times when a casualty may have to be carried to a collection point and no commercial litters are available. In such a situation, you may need to construct a litter from available supplies.

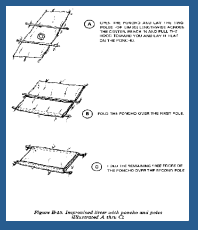


Blanket and Pole Litter

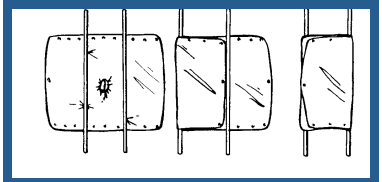
An improvised litter made using two tent poles and a blanket.

Poncho and Pole Litter

A variation of the blanket and pole litter using a poncho instead of a blanket.



Student Practice (Improvised Litters)



Why should you make sure the hood and drawstrings were not hanging out of the hole in the poncho?

✗ A. They could rip the poncho
✓ B. They could catch on brush or other obstacles, which could result in the litter falling

Do all improvised litters require two rigid objects such as tent poles or tree limbs?

✗ A. Yes
✓ B. No

When a litter team rises:

- ✗ A. The two litter bearers at the casualty's head rise first.
- ✗ B. The two litter bearers at the casualty's feet rise first.
- ✓ C. All four litter bearers rise at the same time.

Closing

We have discussed how to prepare an improvised litter when a commercial litter is not available. Litters are an important part of the third stage of tactical combat casualty care- that is, tactical evacuation care.

Appendix C
Enhanced PowerPoint (Final Version)
With CPS Integration

The enhanced PowerPoint (Final Version) with CPS integration will be sent to the Contracting Officer's Representative (COR).

Appendix D
eModules

The published eModules (on CD) will be sent to the Contracting Officer's Representative (COR).

Appendix E
Student Assessment Surveys

Questions for Trainees

Section 1

Please complete this section if this is NOT the first time you have taken this training course.

Skip to Section 2 if this was your first time.

1) How many times have you taken this training (including this course)? _____

2) Circle the number that best reflects whether, if given the choice, you would prefer to repeat the instructional portion of this course in the *clicker* or *non-clicker format*.

> The *clicker version* refers to the format of the training that you just completed that included the use of a personal response clicker. The *non-clicker version* refers to training that you had in the past that did not use the personal response clickers.

1	2	3	4	5
I would rather repeat the clicker version of training		I have no preference		I would rather repeat the non-clicker version training

1	2	3	4	5
I was more engaged in the clicker version of training		I have no preference		I was more engaged in the non-clicker version

1	2	3	4	5
I learned more in the clicker version of training		I have no preference		I learned more in the non-clicker version

1	2	3	4	5
I enjoyed the clicker version of training		I have no preference		I enjoyed the non-clicker version of training

Please write your answers to the following questions in the space provided.

4) Which lesson, if any, was most improved in the clicker version? Please explain.

Section 2

Use the following scale to indicate how much you agree with each of the statements that follow. This is for everyone to complete.

1	2	3	4	5
Strongly agree	Somewhat agree	Neutral	Somewhat disagree	Strongly disagree

This training exceeded my expectations. 1 2 3 4 5

I am confident that I could successfully use the skills I've learned in combat.

1 2 3 4 5

I found this training course engaging. 1 2 3 4 5

The use of personal response clickers made the class more engaging.

1 2 3 4 5

The use of personal response clickers made me better aware of how well I understood class material.

1 2 3 4 5

Please write your answers to the following questions in the space provided.

1) In what ways, if any, did the response clickers help you learn the material?

2) How would you improve the use of response clickers in this training class?

Appendix F
Instructor Surveys

Questions for the Instructors

1) Circle the number that best reflects whether, if given the choice, you would prefer to repeat the instructional portion of this course in the *clicker* or *non-clicker format*.

The *clicker version* refers to the format of the training that you just completed that included the use of a personal response clickers. The *non-clicker version* refers to training that you had in the past that did not use the personal response clickers.

1	2	3	4	5
I would rather teach the clicker version of training		I have no preference		I would rather teach the non-clicker version training
1	2	3	4	5
I was more engaged teaching the clicker version of training		I have no preference		I was more engaged teaching the non-clicker version
1	2	3	4	5
I think the soldiers learned more in the clicker version of training		I have no preference		I think the soldiers learned more in the non-clicker version of training
1	2	3	4	5
I enjoyed teaching the clicker version of training		I have no preference		I enjoyed teaching the non-clicker version of training
1	2	3	4	5
The course was easier to Teach		I have no preference		The course was easier to teach

Please write your answers to the following questions in the space provided.

1) In what ways did your instruction benefit from the use of personal response clickers, if any?

2) In what ways do you think the trainees benefited from the use of response clickers, if any?

3) If you continue using this format of instruction, what changes would you make, if any?

4) Which lessons, if any, were most improved from the use of the response clickers? Please explain.

Appendix G
SLOAN-C Emerging Technologies For Online Learning
Abstract and PowerPoint Presentation

Presenter(s):
Dr. Bea Babbitt (University of Nevada, Las Vegas, US)
Dr. Angelina Hill (University of Nevada, Las Vegas, US)
Gordon Louie (University of Nevada, Las Vegas, US)

Session Information:
July 12, 2011 - 10:30am
Atherton Conference Room

Major Emphasis of Presentation:
Effective Practice; Research Study

Audience Level:
All

Session Duration:
50 Minutes

Concurrent Session:
1

Abstract:
A detailed look at the impact of an enhanced Army training course. Enhanced training included personal response clickers and enhanced presentation clarity. A research study at a National Guard Center will be presented that assessed the impact the course had on performance, and perceptions of trainees and instructors.

Extended Abstract:
Attendees will learn about the impact of an enhanced Army training program. We will show them first-hand how we altered an existing Army training curriculum to incorporate a response system into the lecture, while enhancing the clarity of the presentation. Although response clickers are commonly used in educational settings, the collaboration between a University and an Army Training Center is unique, and this work demonstrates the practicality of expanding the use of technology in all types of classrooms.

Keeping with the spirit of this project, we'll have attendees become active participants of our lecture discussion by answering questions with response clickers. We'll ask willing participants to take on the role of instructor to demonstrate instructional techniques key to the success of the technology. We will talk about what was involved to develop engaging interactive questions for an existing curriculum to be used with the clickers. The collaborative process was central to motivating instructors to take the time to work effectively with an unfamiliar system. We'll also discuss how we trained a set of novice instructors, most with limited computer skills, to use the response system. We'll walk attendees through our challenges along the way, and what we've learned to overcome them. Several related references for effective teaching with technology will be provided.

A complete description of a research study designed to investigate the effectiveness of the enhanced course will be described. We expected that trainees would have greater satisfaction and engagement in the enhanced training class. Instructors were also asked a set of questions to evaluate their perceptions of the enhanced lecture experience. It was expected that they would also be more engaged in the course, and they would perceive their

trainees as benefiting from the enhanced experience. A total of 117 soldiers taking a Combat Lifesaver course at Fort Indiantown Gap, a National Guard Training Center, participated in the study. Sixty-two of the soldiers had never taken a Combat Lifesaver course before. The other 52 soldiers had taken at least one prior course.

Trainees were asked a set of questions related to the clickers. All ratings to questions about satisfaction and engagement in the course were significantly positive (compared to neutral). The average ratings of each of these questions showed agreement (between strongly and somewhat). Questions related to engagement received the most positive ratings. Trainees were asked a set of questions related to the clickers. All ratings to questions about satisfaction and engagement in the course were significantly positive, demonstrating that the clickers had the desired effect of making the course more interactive. Trainees also provided a qualitative account of their experience. The most frequent response given to how they benefited is that they were more motivated/engaged, and many noted that they benefited from the immediate feedback.

Soldiers who have taken a prior Combat Lifesaver course were asked a set of questions comparing the clicker and non-clicker versions of training. They indicated a strong preference for a training course with clickers. All rating to questions comparing the clicker vs. non-clicker version were significantly more favorable for the clicker training (compared to neutral). Not as many repeat trainees indicated definitively that they learned as much in the training with clickers, although no students indicated they learned more in the non-clicker training.

Each of the course sections evaluated were team taught by two instructors. Five instructors were involved in total. The instructors, who have all taught the course without using clickers, provided ratings to questions comparing the clicker vs. non-clicker versions of the course. This was a rather small sample of instructors, but the instructors did not give as favorable ratings of preferring the clicker training as the students gave. The only question that instructors rated with a significantly strong preference was that they thought the soldiers learned more in the clicker version of the course, with four of the five instructors having some preference for the training with clickers. This is especially interesting given that none of the instructors thought that the clicker version was easier to teach.

The main benefit the instructors noted was that clickers made the trainees more attentive/alert, and that the trainee feedback was an asset so that they could identify topics needing further discussion. Several instructors also commented that a main benefit to trainees was the discussion that was elicited following a question. When asked what changes they would make if they were to continue using this format, two instructors suggested moving the questions to the end of the lecture. This viewpoint highlighted to us the importance of making sure that instructors are keenly aware of the benefits of using clickers as an interactive learning tool throughout the lecture. Instructors were given training on the use of clickers to varying degrees, depending on whether they were able to attend a training the was provided, and the extent of training they received from informed instructional leaders. But getting instructors to a point where they understand the benefits of clickers, and can use them as an effective learning tool requires substantial effort and buy-in.

Exam performance of cohort from the year prior was compared to the performance of trainees who took the enhanced courses to see if the enhanced course resulted in higher test scores. There was no significant difference between the exam scores, but this could be due to a ceiling effect. Strategies for measuring performance with more sensitivity will be discussed. Overall, the results of this study show that trainees in the enhanced version of Combat Lifesaver training rated themselves as very engaged, and soldiers who have taken the training in the past would prefer this enhanced version over the old version. Trainees also perceived themselves as learning more.

We'll end the session by discussing the implications of the results. We'll have participants explore how course enhancements of this type could extend to other settings, how instructors can make the most effective use of these enhancements, and other related topics of interest.

Enhancing an Army Training Course with Technology: Impact on Trainees and Instructors

Dr. Bea Babbitt, Dr. Angelina Hill, Gordon Louie
University of Nevada, Las Vegas
Division of Educational Outreach
ET4Online July 12, 2011
San Jose, CA

Question 1

Content Deliver

How much do you already know about Student Response Systems (SRS)?

A. **Advanced** - I have used an SRS system in training.

B. **Above average** - I am somewhat familiar with this tool.

C. **Average** - I have heard a little about the tool.

D. **Basic** - I am very Zen-like at the moment.

Start | End | Zoom (+) | Zoom (-) | Question #1 - Presentation Questions

Verbal

Chalkboard

Combat Lifesaver (CLS) Training

- Emergency medical training for non-medic soldiers in combat
  - Bridge between self (buddy) aid and the Combat Medic (68W)
  - Instructed to treat and stabilize injuries related to:

- blast injury
- amputation
- severe bleeding
- penetrating chest injuries
- simple airway management
- evacuation techniques

Combat Lifesaver Training

- Active and reserve Army personnel are offered CLS training.
  - Those passing a written and performance tests are Combat Lifesaver certified
  - Training courses have about 40 soldiers, with varying ranks and CLS experience

Army Principles of Training

- Principles center around challenging training that extracts greatest value from every opportunity

  - Realistic conditions
  - Performance oriented
  - Train to standard
  - Train to adapt
  - Train to sustain proficiency

Project Goals

- Enhance trainee engagement and performance
- Facilitate effective instruction that can be widely adopted

Program of Instruction (POI)

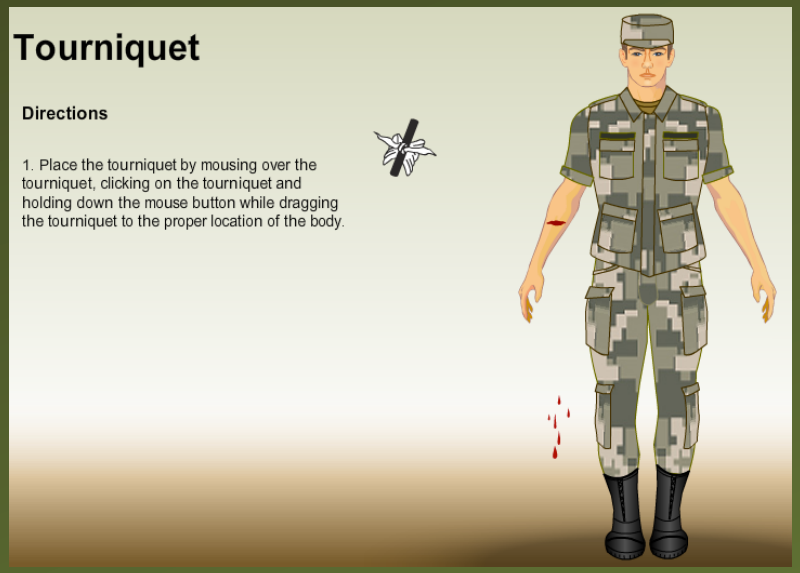
- A standardized curriculum is needed in order to facilitate large-scale training
- The Army had been implementing CLS training through 3 disjointed curricula
- A universal POI was developed which standardized
  - learning outcomes
  - modular training times
  - logistical requirements necessary to execute a regimented training protocol

Project Components

- Program of Instruction (POI)
  - Outlines the objectives of the training program
  - Specifies all aspects of how to carry out training
  - Allows for consistency across all training facilities

Project Components

- E-modules
  - Supplements instruction
  - Additional exposure to most important concepts in an interactive environment



Project Components

- Revised presentation of lecture content
  - Enhanced clarity
  - Completely aligned with Army curriculum
  - Incorporates student response system

Project Components

- Classroom Performance System
  - Imbed clicker questions
  - Train instructors to:
    - operate the clicker software
    - use questions to promote learning
    - make effective use of real-time data

Using SRS for Simple Knowledge Level Questions

- Asking simple fact-based questions can allow you to get immediate feedback as to whether or not students are paying attention.
- Creates an accountability environment in class where “no student is allowed to hide.”

Question 2

Content Deliver

(L1-LQ2)

Do not remove a tourniquet that has been in place for more than _____ hours.

A. 3

B. 4

C. 5

D. 6

Start

Zoom (+)

Zoom (-)

Question #2 - Presentation Questions

Verbal

Chalkboard

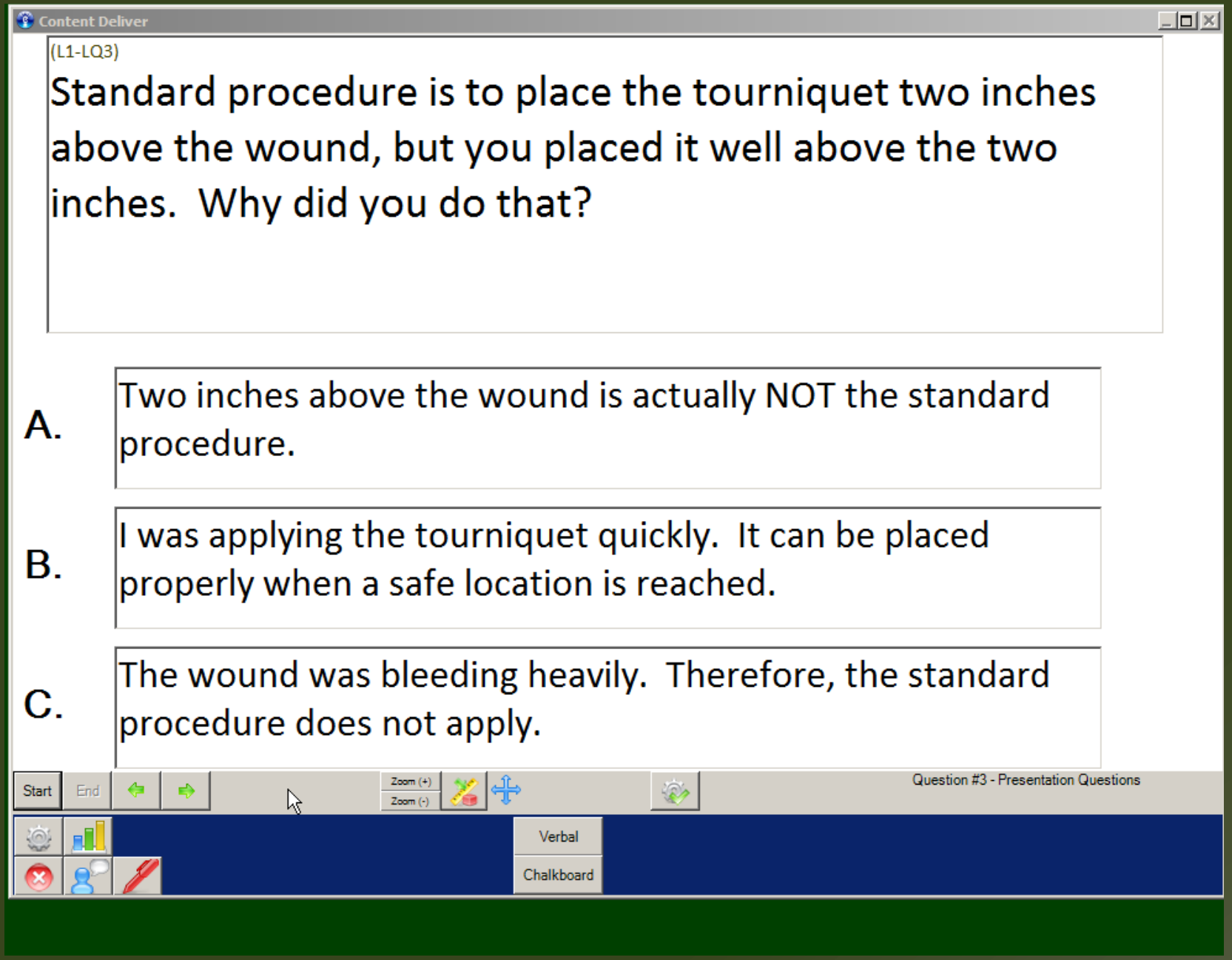
Using SRS to Have Students Focus on a Concept that is Important

- Higher level questions (application or analysis) can be used to cause learners to pause and reflect on WHY they might (or might not) take a course of action.
- This is particularly useful to draw attention to critical concepts in the lecture.

Controlling Hemorrhaging

Quickly check the casualty for potentially life threatening arterial bleeding from an extremity

Question 3

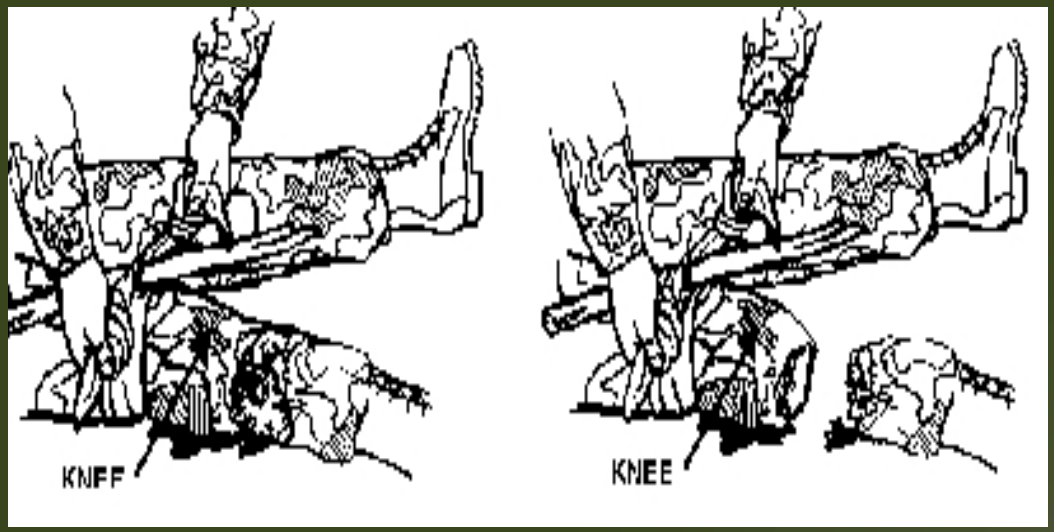

Content Deliver
(L1-LQ3)
Standard procedure is to place the tourniquet two inches above the wound, but you placed it well above the two inches. Why did you do that?
A.
Two inches above the wound is actually NOT the standard procedure.
B.
I was applying the tourniquet quickly. It can be placed properly when a safe location is reached.
C.
The wound was bleeding heavily. Therefore, the standard procedure does not apply.
Start
End
Zoom (+)
Zoom (-)
Question #3 - Presentation Questions
Verbal
Chalkboard

Make Questions Difficult

Questions should not be too easy as students tend to learn more from questions they find challenging.

Applying an Improvised Tourniquet

Your supply of CATs is limited. If you need to apply a tourniquet and do not have a CAT available, you can apply an improvised tourniquet. To minimize skin damage, ensure that the improvised tourniquet is at least two inches wide.



Question 4

Content Deliver

(L1-LQ4)

Can I use a wire or thin material such as a strong shoestring as the tourniquet band?

A. Yes

B. No

Start | End | Zoom (+) | Zoom (-)

Question #4 - Presentation Questions

Verbal

Chalkboard

Demonstrate to Students What They Are Learning

- Ask a thought provoking question prior to delivering related content. Then, ask the same question again after going over the content. The results should show improved performance.
- Do not show the correct answer.

Question 5

Content Deliver

(L1-LQ4)

You are in a fire fight. You see one of your fellow Soldiers go down. What do you do?

A. Stop firing and help your fellow Soldier

B. Continue firing

Start | End | Zoom (+) | Zoom (-) | Question #6 - Presentation Questions

Verbal

Chalkboard


B
A


B
A


C
B
A


C
B
A


B
C
A


C
A
B


B
A

Question 5 (again)

Content Deliver

(L1-LQ4)

You are in a fire fight. You see one of your fellow Soldiers go down. What do you do?

A. Stop firing and help your fellow Soldier

B. Continue firing

Start End Zoom (+) Zoom (-) Question #6 - Presentation Questions

Verbal

Chalkboard

Evaluating the Project's Effectiveness

- Sample
  - 117 soldiers at Fort Indiantown Gap
  - Three training classes
  - Five instructors

Satisfaction & Engagement

All ratings to questions about satisfaction and engagement were **significantly positive**

Satisfaction & Engagement Questions	Average Rating	Agree (Strongly & Somewhat) /112
Training exceeded my expectations	4.37	97
Confident I could apply learned skills in combat	4.55	105
Found training course engaging	4.68	108
Clickers made class more engaging	4.55	99
Clickers made me better aware of how well I understood materials	4.46	98
I could easily follow along with the textbook	4.11	89

5 = strongly agree, 4 = somewhat agree, 3 = neutral, 2 = somewhat disagree, 1 = strongly disagree

Satisfaction & Engagement

- Asked what ways, if any, the clickers helped them learn the material
  - Hands on, fun, engaging
  - Easy to participate in class
  - Allowed more discussion
  - Instructors gave more immediate feedback
  - Can contribute without pressure from classmates

Comparison Results

- Soldiers having taken a **prior CLS training** were asked comparison questions.

Questions	**Average rating**	5 Clicker training	4 Between clicker & no preference	3 No preference	2 Between no preference & non-clicker	1 Non-clicker training
Repeat clicker version	4.58	37	6	6	1	0
More engaged in clicker version	4.60	37	6	7	0	0
Learned more in clicker version	4.28	28	10	10	2	0
Enjoyed clicker version	4.60	36	8	6	0	0
Had easier time following along with book in this version	4.12	25	9	14	1	1

Instructor Perceptions

- Five instructors were asked to compare the new and old versions of the course.
  - Rated the new course as more difficult to teach
  - Did not have a clear preference for the new course
  - However, they thought that trainees learned more in the new version.

Performance

- Exam scores
  - Compared average performance of all trainees at Fort Indiantown Gap in 2008 to sample average
  - Scores did not significantly differ

	2008 Cohort	Sample – Enhanced course
Mean	88.43	87.28
SD	7.22	6.59
N	1182	117

Result Summary

- Trainees rated themselves as more engaged and as learning more
- Instructors also perceived trainees as learning more
- Soldiers repeating training preferred the enhanced version

Keys to Success

- Work closely with subject matter experts to develop effective questions
  - Expect several rounds of revisions
- Devote as much time as possible to instructor training
  - Even the most capable instructors

Keys to Success

- Technical glitches can be a greater setback to the instructor than to the students
- Add technology slowly
  - Electronic tablets, rosters, etc.

References

- General Information about Student Response Systems (non-biased clearinghouse of research and reviews)
  http://cft.vanderbilt.edu/docs/classroom-response-system-clickers-bibliography/

- Information on the specific SRS device used in this study – specific to K-12 and Higher Education
  www.einstruction.com

- Information of the specific SRS device used in this study – focused on use in adult learning
  www.interactivelearningnow.com

Contact Information

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Appendix H
ATACCC Abstract and Poster Presentation

Authors: Bea Babbitt, Ph.D.
Angelina Hill, Ph.D.
Gordon Louie
Patricia Harrison

Title: Integrating New Technologies into CCC Training

Abstract:
Numerous new technologies and sophisticated simulations have been developed for use in combat casualty care training. Their promise is to deliver more active, realistic, and improved learning. However, attempts to integrate these new technologies into current instruction present many challenges to medical training programs. This presentation will describe the collaboration between an Army National Guard Medical Battalion Training Site and the University of Nevada, Las Vegas to design, implement, and evaluate an enhanced CCC training program that integrated new and refined classroom technologies. The focus of this project was the integration of an electronic response system into the learning setting but the lessons learned apply more generally to the effective integration of learning technologies into medical CCC training.

The Department of Defense describes a “best practice” as a superior method or an innovative practice that contributes to improved performance of the process. Higher education researchers speak of “high impact practices” that have been shown to result in greater student learning. New learning technologies are often intended to promote many high impact instructional practices including active learning, frequent and prompt feedback, increased time on task, increased faculty/ trainee and peer interaction, and greater content realism and relevancy.

As we describe how we enhanced the existing Army CCC training curriculum to integrate the new technology, we will address some common challenges to effective technology integration and implementation. We’ll address the challenges in curricular planning for technology use, the challenges for instructors learning to use and then teach with the new technology, and the changes in teacher/trainee and peer-to-peer interactions when using the new technology. Finally, we will report on learning impact and instructor and student comparisons of training with and without the implemented technology.

Integrating New Technologies into CCC Training: Impact on Trainees and Instructors

Dr. Bea Babbitt, Dr. Angelina Hill, Gordon Louie, and Patricia Harrison — University of Nevada, Las Vegas — Division of Educational Outreach

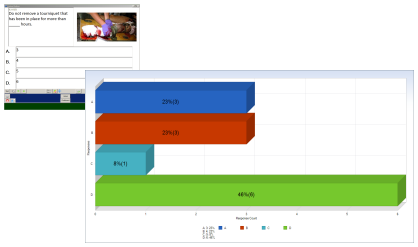
ABSTRACT

The focus of this project was to design, implement, and evaluate the use of Classroom Response System technology in Combat Lifesaver Training.

Despite challenges, instructors rated the enhanced course as beneficial to their trainees. Trainees reported being more engaged, and perceived themselves as learning more in the enhanced course.

OBJECTIVES

- Increase and evaluate **Trainee** satisfaction, engagement, and performance in Combat Lifesaver training through Enhanced Lecture, including:
  - Enhanced clarity of content Presentations
  - Better alignment of curriculum
  - Implementation of Student Response System (clickers)
- Train **Instructors** on creation and delivery of Classroom Performance System software and how to respond to returned data.



Example of an enhanced lecture question and resulting student response graph.

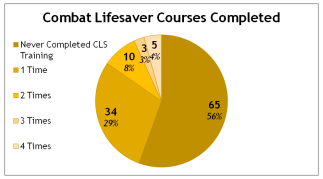
METHODS

Project Milestones included:

- Revision of content
- Generation of adequately difficult questions
- Training Instructors to deliver the enhanced lecture materials and how to effective management of a highly interactive classroom
- Evaluation of the effectiveness of the Enhanced Lecture in regard to performance and perception of the Combat Lifesaver Training course.

Participants:
117 soldiers, from three classes of 50, 50, and 17, taking Combat Lifesaver Training at the Pennsylvania Army National Guard Medical Battalion Training Center, Fort Indiantown Gap, participated in the study.

All classes were team taught between two Instructors, comprising a total of 5 Instructors in the sampled population.



Procedure:
• Trainees used Student Response Systems to answer about 8 questions per lesson in the enhance lecture version of the class.
• Trainees completed a final written exam given to all CLS Training classes, and responded to a satisfaction questionnaire following the course. Those repeating training were also asked to compare the original and new versions of the course.
• Instructors were also asked to compare aspects of the traditional and enhanced versions of the course.

Analysis:
Survey results and course performance data was then statistically analyzed against the performance of the 2008 Training Cohort (comprised of 1182 Trainees) that had been conducted under traditional teaching methods.

It was anticipated that Trainees would improve performance on course evaluations, Instructors would observe trainees as having benefited from the enhanced experience, and that both Trainees and Instructors would be more engaged in the CLS training.

RESULTS

All ratings to questions about satisfaction and engagement were significantly positive:

Satisfaction & Engagement Questions	Average Rating	Agree (Strongly & Somewhat) /112
Training exceeded my expectations	4.37	97
Confident I could apply learned skills in combat	4.55	105
Found training course engaging	4.68	108
Clickers made class more engaging.	4.55	99
Clickers made me better aware of how well I understood materials.	4.46	98
I could easily follow along with the textbook.	4.11	89

Survey responses from Trainees repeating CLS Training:

Questions	Average Rating	5	4	3	2	1
Repeat clicker version	4.58	37	6	6	1	0
More engaged in clicker version	4.60	37	6	7	0	0
Learned more in clicker version	4.28	28	10	10	2	0
Enjoyed clicker version	4.60	36	8	6	0	0
Had easier time following along with book in this version	4.12	25	9	14	1	1

5 = strongly agree, 4 = somewhat agree, 3 = neutral, 2 = somewhat disagree, 1 = strongly disagree

When asked what ways, if any, the clickers helped them learn the material, students responded:

- Hands on, fun, engaging
- Easy to participate in class
- Allowed more discussion
- Instructors gave more immediate feedback
- Can contribute without pressure from classmates

Despite rating the enhanced course as more difficult to teach, and not indicating a clear preference to teach the new version, no instructors thought that the students learned more in the old version of the course.

Exam Performance Results:

	2008 Cohort	Sample - Enhanced course
Mean	88.43	87.28
SD	7.22	6.59
N	1182	117

There was no significant difference between the exam scores of the 2008 cohort ($M = 88.43$, $SD = 7.22$) and the trainees who took the enhanced course ($M = 87.28$, $SD = 6.59$), $t(1180) = 1.54$, $p = .124$, $d = 0.16$. The possibility of a ceiling affect warrants further investigation.

CONCLUSIONS

Instructors and trainees both evaluated the enhanced training course positively, indicating increased engagement and improved learning.

Lessons Learned:

- Experts in pedagogy and in classroom technology must work very closely with content experts.
  - Adding technology was only effective when it focused on instructor-valued content.
- Piloting is crucial.
  - Presentation material and response questions need to be adapted based on instructor flow and student performance.
  - Work with a content matter expert to design questions.
- Training of instructors and hands-on practice is essential.
  - Technical glitches can be a greater setback to the instructor than to the students.

REFERENCES

General Information about Student Response Systems (non-biased clearinghouse of research and reviews): http://cft.vanderbilt.edu/docs/classroom-response-system-clickers-bibliography/

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CONTACT

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Appendix I
Manuscript: Examining the Efficacy of Personal Response Devices in Army Training

Hill, A., and Babbitt, B. C. (submitted for publication, 2011). "Examining the Efficacy of Personal Response Devices in Army Training."

Examining the Efficacy of Personal Response Devices in Army Training

Angelina M. Hill

University of Nevada, Las Vegas

Beatrice C. Babbitt

University of Nevada, Las Vegas

Abstract

Benefits of personal response devices (PRDs) have been demonstrated in a variety of settings and disciplines in higher education. This study looked outside of higher education to investigate the efficacy of PRDs in an Army training course in terms of trainee performance, engagement, and satisfaction. Instructors were also surveyed to determine their perceptions of the impact of PRDs on student learning and engagement. Trainees reported that they were more engaged and had a better understanding of how well they understood the material because of the PRDs. Trainees who had previously taken the course without PRDs reported a preference for the training with PRDs in terms of being more engaged, learning more, and enjoying the course more. No improvement in performance was detected when comparing final exam scores in these courses to prior courses that did not use PRDs. Instructors appeared to see benefits afforded to their students, but they also found the course more challenging to teach, highlighting the need for adequate training to use the new technology, and care taken to developing effective questions.

The Impact of Personal Response Devices in an Army Training Course

Personal Response Devices (PRDs) have demonstrated success in terms of engagement (e.g., Caldwell, 2007; Hall, Collier, Thomas, & Hilgers, 2005) student satisfaction (e.g., Byrd, Coleman, & Werneth, 2004; Johnson, 2005; Lowery, 2005), and performance (e.g., Edens, 2009; Poulis, Massen, Robens & Gilbert, 1998; Ribbens, 2007) in a variety of venues. In the college classroom, PRDs have been shown to be beneficial in a variety of disciplines. The greatest extent of research has been in the science arena, but research studies have also been conducted in the fields of medicine, mathematics, business, social science, and more (Kay & LeSage, 2009). PRD use is also widespread at the K-12 level. Although research is much more comprehensive in higher education, a survey of K-12 teachers provided evidence that they use many of the same techniques used to make PRDs effective in higher education (Penuel, Boscardin, Masyn, & Crawford, 2007).

Research on the impact of PRDs has grown substantially in the 2000s, but this growth has not been evenly distributed across educational settings. A recent review of the literature by Kay and LeSage (2009) noted a lack of research outside of higher education and mathematics/science-based courses, and that conducting this research would help provide a fuller understanding of the impact of PRDs. The current study was performed to see if the effectiveness of PRDs will extend to a structured educational setting outside of higher education, an Army training course. PRDs are currently used in a variety of military trainings, such as in Army JROTC instruction (WIDS Wire, 2010), Navy Submarine Training, and Air Force Medical Training (eInstruction, 2011). However, evidence of effectiveness in military settings in not readily available in the published literature.

The specific Army training course under investigation (Combat Lifesaver training) is

given to active and reserve Army personnel so that they can provide emergency medical care as non-medic soldiers in combat. Typically, trainees use PRDs, a small handheld electronic device, to respond to questions embedded in presentation materials. The number or percentage of responses for each response option are displayed immediately and usually graphically. To understand the potential effectiveness of PRDs in an Army training environment, consider the variety of ways that PRDs have been shown to enhance instruction in higher education. Most obvious is their ability to provide students with immediate feedback. This feedback in and of itself is beneficial to learning (Edens, 2009), and provides students with knowledge of how well they understand compared to their peers (Stuart, Draper, & Brown, 2004). Given that Combat Lifesaver training takes place during a condensed one-week period, a large amount of material is covered each day, making the use of daily/immediate feedback seem highly beneficial.

Other advantages of PRDs depend on the effectiveness of the questions, the climate in the classroom, and the instructor. PRDs have been shown to be more beneficial when questions promote discussion (DeBourgh, 2008) and deep thinking, as opposed to retrieval of facts (MacGeorge, Homan, Dunning, Elmore, Bodie, Khichadia, Lichti, Feng, & Geddes, 2008). Only a small amount of the material covered in Combat Lifesaver training can be learned easily and through basic memorization. Most of the information is complex, making it difficult for soldiers to apply this knowledge in combat if not understood at a deeper level that integrates the information into what they already know.

PRDs have also been shown to be more effective when instructors are aware of student performance, and adjust the material they emphasize accordingly (Oerman & Gaberson, 2006). Trainee performance typically varies widely in a Combat Lifesaver training course. A typical course has trainees with varying rank, and given that the course can be repeated numerous times,

some trainees have more direct exposure to the material than others. This diversity makes it appear very beneficial for instructors to quickly assess performance so that they can tailor each class.

Similar to the variations in classroom size across higher education's colleges and universities, the Combat Lifesaver training size also varies based on the training site, and available facilities. The always-changing military deployment schedule creates a need to implement instructional techniques that are not dependent on classroom size. Most of the benefits of PRDs have been observed in large classrooms (Boyle, Nicol, Hamilton, & Dempster, 2001; Nicol & Boyle, 2003), where personal feedback and interaction with the instructor is more challenging. Smaller classrooms, however, have also been shown to benefit (e.g., Herreid, 2006). Although small classes make student discussion and engagement more feasible, PRDs can further motivate students to be involved (Lea, 2008).

At a surface level, it appears that the effects of PRDs that have been documented in higher education should extend to Combat Casualty training. At the most general level, PRDs enhance student engagement, which promotes active learning (Hall et al., 2005). A more active learning environment leads to more engaged students, and is believed to enhance student learning (Chickering & Gamson, 1997). In contrast to many advanced Army laboratory training environments, the lecture environment for Combat Casualty training has typically been passive. It was suspected that training would greatly benefit from a more engaged environment that promoted active engagement. The following study looks at the impact of PRDs in an Army training course by investigating the various ways in which active learning can impact the classroom: Changes in student performance, engagement, and satisfaction. Benefits and challenges to instructors were also investigated.

Method

Participants

A sample of 117 soldiers taking a Combat Lifesaver course at a National Guard Training Center participated in the study. Sixty-two of the soldiers had never taken a Combat Lifesaver course before. The other 52 soldiers had taken the course at least once before. Refer to Table 1 for the specific number of prior Combat Lifesaver courses taken by the soldiers in the study.

The sample was obtained from three Combat Lifesaver training classes. Two were offered in May of 2010. Both of these courses had 50 trainees. The third class was offered in August of 2010 and had seventeen trainees.

The instructors of these three training classes also participated in the study. All classes were team taught with two instructors. Instructors varied by class, with the exception of one instructor who took part in two classes. This resulted in five different instructors. All were experienced teaching the Combat Lifesaver training course.

Materials and Procedure

Instructors involved in the study had previously taught the course using a lengthy PowerPoint presentation without the use of PRDs. As part of the study, instructors used a revised PowerPoint presentation that included an average of eight questions per lesson, developed with curriculum experts from the Army National Guard Medical Operations Instructional Team, for response using PRDs. The PowerPoint presentation was also reduced in length to focus on content that was identified as most valuable by the instructors and curriculum experts, and to better align with the student self-study guide. Instructors delivered the presentation using the CPS Pulse student response system sold by the company eInstruction. This system enabled questions to be incorporated directly into the PowerPoint presentation, and instructors provided

aggregate class results in chart form immediately following student responses. All soldiers were provided with the CPS Pulse response devices during the lectures.

Soldiers completed the Combat Lifesaver course over a five-day period. Approximately half of the overall course was lecture and half was lab and simulation exercises. This study only investigated the lecture portion of the class. Following the complete delivery of the lecture part of the course, a questionnaire was given to each of the soldiers. This questionnaire, which is provided in Appendix A, asked soldiers about their satisfaction, engagement, and perceived amount of learning in the training. The questions made specific reference to their use of the PRD, which instructors referred to as "clickers." Soldiers who had taken the course in the past were also asked questions related to their preference for this new "clicker" version of the training vs. the "non-clicker" version.

At the end of each course, a questionnaire was also given to instructors. This questionnaire, provided in Appendix B, asked instructors about their preferences regarding their teaching of the new "clicker" version vs. the "non-clicker" version, as well as how they perceived students to benefit from the new version.

In addition to surveying the soldiers, performance was also evaluated by comparing results of the standard exam that accompanies all Combat Lifesaver courses. This exam is taken at the completion of the course, and must be completed with a successful pass rate of 70 percent in order for trainees to receive Combat Lifesaver certification. The exam consisted of 40 multiple-choice questions that are directly related to the content covered in lecture. The exam was not altered in any way from previous trainings for this study. Exam questions differed from the questions that were included in the PowerPoint presentation to be answered using the PRDs, but they did assess the same content.

Results

Soldier Satisfaction and Engagement Ratings

Survey responses from soldiers were analyzed using a chi-square test of goodness of fit to determine whether solders showed agreement to positive aspects of the training course, and to the incorporation of PRDs. The results for each survey item are presented in Table 2. As you can see, all questions resulted in the soldiers showing significant agreement to the positive aspects of the course and use of PRDs. When asked specifically about the use of the PRDs, soldiers showed significant agreement (89.3% strongly or somewhat agreed) that the PRDs made the class more engaging, χ^2 (1, N = 112) = 69.14, p < .001, ω = .79. Soldiers also agreed (87.6% strongly or somewhat agreed) that the PRDs made them better aware of how well they understood the material, χ^2 (1, N = 113) = 63.94, p < .001, ω = .75.

An independent-samples t-test revealed no significant differences across soldiers who were repeating the course vs. first-timers in terms of PRDs making the class more engaging, t(110) = 1.00, p = .339, or in terms of PRDs making them better aware of how well they understood the material, t(111) = .838, p = .414.

Questions asking soldiers who were repeating the course to rate their preference for the version of the course with vs. without PRDs were also evaluated using a chi-square test of goodness of fit to determine whether solders showed a preference for the PRD version. The results for each survey item are presented in Table 3. This table shows that all questions resulted in soldiers showing a significant preference for the version of the course that includes PRDs. Over eighty percent (82.4%) indicated that they would rather repeat the clicker version of the course, and the same percentage indicated that they were more engaged in this version of the course. An even higher percentage (84.3%) indicated that they enjoyed the PRD version more than prior versions.

Soldiers also gave a significant preference for having learned more in the PRD version (72.5%), but this preference resulted in a smaller effect size (χ^2 (1, N = 51) = 10.37, p < .001, ω = .45) than did questions related to engagement and enjoyment (see Table 3).

Qualitative Feedback from Soldiers

Trainees were asked to write what ways, if any, the response clickers helped them learn the material. The majority of the trainees provided responses that fell into three major categories regarding perceived benefits from (1) various types of interactivity, (2) reinforcement of material, and (3) ability to participate with anonymity. Almost half of all soldiers (48.7%) remarked on various ways that the PRDs made the course more interactive. The answer given most frequently was that answering the questions kept them more engaged/motivated. Almost a quarter of respondents (22.22%) remarked on positive ways the PRDs reinforced the material. This included benefits from thinking about and forming a response to the question that is followed by immediate feedback, as well as how the discussion with the instructor following the answer reinforced their understanding. Finally, a handful of soldiers (6.84%) remarked on the benefits of the anonymous environment that the PRDs promoted, allowing them to participate when they might not otherwise, without the influence or worry of getting the answer incorrect in front of peers.

Trainees were also asked to write about how they would improve the use of clickers in the training class. Seventy students (nearly sixty percent (59.85%) of soldiers, and seventy percent of all comments provided) remarked on program glitches (i.e. computer freezes, clickers not responding). A handful of unique responses, such as utilizing timers for self-read portions and incorporating short videos to maximize interactivity further demonstrated the soldiers' engagement with the training.

Performance

Final exam performance of soldiers in the study was compared to the performance of all soldiers having taken a course without the use of PRDs during the previous year at the same National Guard Training Center. Scores from 1,065 soldiers were included in this cohort. An independent-samples t-test revealed no significant difference between the exam scores of soldiers in the PRD classes ($M = 87.28$, $SD = 6.59$) with all trainees who took the non-PRD course the following year ($M = 88.43$, $SD = 7.22$), $t(1180) = 1.54$, $p = .124$, $d = 0.16$.

Instructor Perceptions

Instructors, all having taught the course prior to incorporating PRDs provided ratings to questions comparing the course with vs. without the use of PRDs. Given that only five instructors participated in the study, too few responses were collected to conduct any inferential statistics on their preference for the use of PRDs. However, no instructors indicated a clear preference for the training that used PRDs. Many of the instructors had a slight preference (between clicker and no preference) for the course with PRDs in terms of teaching that version again, being more engaged, and believing that the soldiers learned more. None of the instructors, however, favored the PRD training (even between PRD and no preference) in terms of it being easier to teach.

Instructors were also asked a series of open-ended questions about the enhanced course. The main benefits they saw from the clickers related to instruction was that they made the trainees more attentive/alert, and that the trainee feedback was an asset so that they could identify topics needing further discussion. Three of the five instructors also commented that a main benefit to trainees was the discussion that was elicited following a question. When asked what changes they would make if they were to continue using this format, the main suggestions

that emerged were related to the questions in terms of revisions to some of the questions, moving questions to the end of the lecture, and trimming the number of questions to reduce lecture time.

Discussion

Trainees and instructors both indicated that the PRDs enhanced engagement in the classroom. Greater engagement has been shown when all students respond to questions posed by the instructor, rather than just a few who typically respond (Frederickson & Ames, 2009). Trainees also perceived themselves as learning more, but this was not supported by increased exam performance. The trainees' performance scores, however, were very high prior to the use of PRDs. It is likely that a ceiling effect may have made it difficult to detect increased performance due to the PRDs. Testing, in addition to the final exam, wasn't feasible in this training, but future performance measures developed for the sole purpose of measuring PRD effectiveness are needed to better understand PRDs' impact on performance.

Trainees who had taken the same training in the past, that did not include PRDs, indicated that they preferred the course with PRDs. The choice wasn't as clear for the instructors. Instructors appeared to see the engagement and learning benefits afforded to their students, but they also reported that including the PRDs made the course more difficult to teach. Three issues appeared to be central to this difficulty: technical problems, classroom management, and required changes in pedagogy.

Instructors needed to become familiar with new software to implement the PRDs. That software was sometimes incompatible with other technology being used resulting in program freezes. Clearly, instructors will find the course more difficult to teach while experiencing technical problems, highlighting the importance of substantial training to make them comfortable using the new technology. Trainees also needed adequate training to operate the new technology.

Instructor were given training to use PRDs, but none of the instructors were experts, and most experienced technical difficulties during the trainings. The extent of technical difficulties was probably more prevalent in these trainings than in higher education settings because of the high level of computer security necessary at a National Guard Training Center. Many of the trainees noted the technical difficulties when asked how to improve the training. But even with these glitches, trainees still showed a clear preference for the inclusion of PRDs.

A second concern of the instructors was how they could discuss the questions effectively without increasing lecture time. The discussion elicited by the questions, which is crucial to the effectiveness of the PRDs, created timing and class management issues for some instructors. The discussions appeared to take increased instructional time and the transition back to the lecture was a challenge for some instructors. Such issues would likely be largely reduced if not completely eliminated with additional training and experience using the PRDs. With experience, instructors should recognize that clickers eliminate the need to discuss topics that are well understood and allow more time to discuss topics where misunderstandings are evidenced (Anderson, 2011). Smooth transitions back to the lecture will occur as instructors establish standard classroom protocols for PRD use.

A third instructor concern related to question wording. Some of the textbook derived questions were too simple to evoke meaningful discussion. The research team collaborated with the instructors to improve this aspect of the training but more work in this area appears to be needed.

Finally, the effective use of PRDs requires that instructors capitalize on the learning that takes place when students actively interact with content. The discussions that take place following PRD use are crucial to enhancing students understanding. As students defend their

answers to their peers, they clarify points of uncertainty or misunderstanding and increase their critical thinking abilities (Frederickson & Ames, 2009). Instructors who have not used this approach will need extensive training regarding the pedagogy behind effective PRD use.

Overall, the use of PRDs made the training class a more engaging and enjoyable setting for soldiers. However, instructors must invest time to comfortably operate the software and to adjust to a different way of teaching. This makes it important that instructors are sufficiently motivated to use the PRDs, and this can be done through proper pedagogical training, and by providing sufficient experience operating the software. Under these circumstances, it appears that PRDs can be a valuable addition to Army training.

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Appendix A

Questions for Trainees

Section 1

Please complete this section if this is NOT the first time you have taken this training course. Skip to Section 2 if this was your first time.

1) How many times have you taken this training (including this course)? ____

2) Circle the number that best reflects whether, if given the choice, you would prefer to repeat the instructional portion of this course in the *clicker* or *non-clicker format*.

> The *clicker version* refers to the format of the training that you just completed that included the use of a personal response clicker. The *non-clicker version* refers to training that you had in the past that did not use the personal response clickers.

1	2	3	4	5
I would rather repeat the clicker version of training		I have no preference		I would rather repeat the non-clicker version training
1	2	3	4	5
I was more engaged in the clicker version of training		I have no preference		I was more engaged in the non-clicker version
1	2	3	4	5
I learned more in the clicker version of training		I have no preference		I learned more in the non-clicker version
1	2	3	4	5
I enjoyed the clicker version of training		I have no preference		I enjoyed the non-clicker version of training

Please write your answers to the following questions in the space provided.

4) Which lesson, if any, was most improved in the clicker version? Please explain.

Appendix A

Section 2

Use the following scale to indicate how much you agree with each of the statements that follow. This is for everyone to complete.

1	2	3	4	5
Strongly agree	Somewhat agree	Neutral	Somewhat disagree	Strongly disagree

This training exceeded my expectations. 1 2 3 4 5

I am confident that I could successfully use the skills I've learned in combat.
1 2 3 4 5

I found this training course engaging. 1 2 3 4 5

The use of personal response clickers made the class more engaging.
1 2 3 4 5

The use of personal response clickers made me better aware of how well I understood class material.
1 2 3 4 5

Please write your answers to the following questions in the space provided.

1) In what ways, if any, did the response clickers help you learn the material?

2) How would you improve the use of response clickers in this training class?

Appendix B

Questions for the Instructors

1) Circle the number that best reflects whether, if given the choice, you would prefer to repeat the instructional portion of this course in the *clicker* or *non-clicker format*.

The *clicker version* refers to the format of the training that you just completed that included the use of a personal response clickers. The *non-clicker version* refers to training that you had in the past that did not use the personal response clickers.

1	2	3	4	5
I would rather teach the clicker version of training		I have no preference		I would rather teach the non-clicker version training
1	2	3	4	5
I was more engaged teaching the clicker version of training		I have no preference		I was more engaged teaching the non-clicker version
1	2	3	4	5
I think the soldiers learned more in the clicker version of training		I have no preference		I think the soldiers learned more in the non-clicker version of training
1	2	3	4	5
I enjoyed teaching the clicker version of training		I have no preference		I enjoyed teaching the non-clicker version of training
1	2	3	4	5
The course was easier to Teach		I have no preference		The course was easier to teach

Please write your answers to the following questions in the space provided.

1) In what ways did your instruction benefit from the use of personal response clickers, if any?

2) In what ways do you think the trainees benefited from the use of response clickers, if any?

3) If you continue using this format of instruction, what changes would you make, if any?

Table 1

Number of Combat Lifesaver Courses Taken Previously

Prior Completions	Participants
0	65
1	34
2	10
3	3
4	5

Table 2

Analysis of Soldier's Perceptions of Enhanced Lecture

Survey Question	% Satisfied	N	X^2	ω	p-value
Training exceeded my expectations	86.8	114	61.895	0.737	<.001
Confident I could apply learned skills in combat	93.8	112	85.75	0.875	<.001
Found training course engaging	95.6	113	93.885	0.912	<.001
Clickers made class more engaging	89.3	112	69.143	0.786	<.001
Clickers made me better aware of how well I understood materials	87.6	113	63.938	0.752	<.001
I could easily follow along with the textbook	80.5	113	42.133	0.611	<.001

Table 3

Analysis of Soldier's Perceptions of Enhanced Lecture vs. Traditional (Past)

Clicker to non-clicker training Questions	% Indicating Preference (above neutral)	N	X^2	ω	p-value
Repeat clicker version	82.4	51	21.353	0.647	<.001
More engaged in clicker version	82.4	51	21.353	0.647	<.001
Learned more in clicker version	72.5	51	10.373	0.451	<.001
Enjoyed clicker version	84.3	51	24.02	0.686	<.001
Had easier time following along with book in this version	62.6	51	3.314	0.255	0.069

SUPPORTING DATA

Table 1

Analysis of Soldier's Perceptions of Enhanced Lecture

Survey Question	% Satisfied	N	chi square	w	p-value
Training exceeded my expectations	86.8	114	61.895	0.736843672	<.001
Confident I could apply learned skills in combat	93.8	112	85.75	0.875	<.001
Found training course engaging	95.6	113	93.885	0.91150464	<.001
Clickers made class more engaging	89.3	112	69.143	0.785715097	<.001
Clickers made me better aware of how well I understood materials	87.6	113	63.938	0.752212077	<.001
I could easily follow along with the textbook	80.5	113	42.133	0.610621329	<.001

Table 2

Analysis of Soldier's Perceptions of Enhanced Lecture vs. Traditional (Past)

Clicker to non-clicker training Questions	% Satisfied	N	chi square	w	p-value
Repeat clicker version	82.4	51	21.353	0.647059715	<.001
More engaged in clicker version	82.4	51	21.353	0.647059715	<.001
Learned more in clicker version	72.5	51	10.373	0.450990196	<.001
Enjoyed clicker version	84.3	51	24.02	0.686280112	<.001

Had easier time following along with book in this version	62.6	51	3.314	0.254912519	0.069

Table 3

Number of Combat Lifesaver Courses Taken Previously

Prior Completions	Participants
0	65
1	34
2	10
3	3
4	5