Department of the Army
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Training and Doctrine Command
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Training

Medical Support to Training

FOR THE COMMANDER:

OFFICIAL:

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History. This publication is a new U.S. Army Training and Doctrine Command (TRADOC) circular.

Summary. This circular provides commanders an approach to planning and using medical support resources to ensure timely responses in the event of injuries to our Soldiers. The focus of these guidelines is medical support to trauma victims. Medical support for health and well-being, normally provided at installations and activities, is not included in these guidelines.

Applicability. This circular applies to all TRADOC organizations involved in high-risk and low-risk training by the Active Army, U.S. Army National Guard, U.S. Army Reserve, and Department of the Army Civilians.

Proponent and exception authority. The proponent for this circular is the TRADOC Deputy Chief of Staff G-3/5/7, with the Office of the Command Surgeon and Director of Safety as the lead consultants. The proponent has the authority to approve exceptions or waivers to this circular that are consistent with controlling law and regulations.

Suggested improvements. Users are invited to send comments and suggested improvements on Department of the Army Form 2028 (Recommended Changes to Publications and Blank Forms) directly to the Commander, Combined Arms Center, Vice Provost for Learning Systems, Army

University, ATZL-AUL, Fort Leavenworth, KS 66027-2300; or electronically to usarmy.leavenworth.tradoc.mbx.armyu@mail.mil.

Distribution. This circular is available in electronic media only at the TRADOC Administrative Publications website (https://adminpubs.tradoc.army.mil/).

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Table List

Chapter 1
Introduction

1-1. Purpose

This circular provides guidelines for determination of appropriate medical support based on risk to individuals from the predictable effects of traumatic injuries associated with training events. This circular does not prescribe a risk management level to training events. The circular enables the commander to envision the predictable effects of potential types of injuries as part of risk management (RM) decisions and further prescribes the appropriate level of medical support based on the RM decision. High-risk training exposes personnel (i.e., Soldiers-in-training, students, cadre and staff) to the potential risks of death, permanent disability, or lost duty time. Low-risk training is highly unlikely to expose personnel to risk of a potential minor and temporary injury. The enclosed tables list training events identified as high or low-risk to training personnel and identify the minimum level of support required for those events. The planning recommendations outlined in this circular enable appropriate medical support that will mitigate risk associated with life-threatening and moderate injuries. The circular provides installation commanders and commandants a degree of flexibility in allocating resources and the programming of training. Levels of medical support for each event are ultimately based upon the commander's risk assessment and the mission, enemy, terrain and weather, troops and support available, time available and civil considerations analysis.

1-2. References

Referenced and related publications are listed in appendix A.

1-3. Explanation of Abbreviations and Terms

Abbreviations, acronyms and terms used in this regulation are explained in the glossary.

1-4. Responsibilities

a. On behalf of the U.S. Army Training and Doctrine Command (TRADOC) G-3/5/7, the Office of the Command Surgeon facilitates and coordinates medical training curriculum for unit, individual, and leader development with the U.S. Army Medical Department Center and School (AMEDDC&S) Health Readiness Center of Excellence (HRCoE). The TRADOC Office of the Command Surgeon coordinates and implements TRADOC programs for the prevention, surveillance, and treatment of disease and injury within TRADOC.

b. AMEDDC&S HRCoE, Center for Pre-Hospital Medicine, is the proponent and lead consult for tactical combat casualty care. The Center for Pre-Hospital Medicine maintains a focus on combat casualty care and aligns with other TRADOC subordinate organizations in terms of the authority and responsibility for developing operational medicine concepts, identifying operational medicine capability gaps, and refining future medical readiness requirements based on Soldier capability needs established by TRADOC.

c. Commanders integrate RM into planning, preparing, executing, and assessing of operations (see Department of Defense Form 2977, Deliberate Risk Assessment Worksheet). The process applies to all types of operations, tasks, and activities. Commanders must ensure first-line

supervisors apply the process where it has the greatest impact. Commanders must dedicate sufficient time and resources to RM and ensure units manage risk effectively throughout all phases of missions and operations. Commanders who consider it necessary to provide a higher than minimum level of medical support to any event may do so at their own discretion. Commanders should coordinate with external casualty response assets in accordance with local installation emergency medical services during planning and execution of training events.

d. Proponent

(1) In coordination with the Office of the Command Surgeon, develop and publish recommended medical guidelines that establish commanders' responsibilities to plan medical support resources for training to ensure timely responses in the event of injuries.

(2) Update this TRADOC circular (TC), as appropriate, by coordinating with the Office of the Command Surgeon and AMEDDC&S HRCoE on the latest Army medical techniques and procedures.

(3) Facilitate the adjustment of medical personnel to support current Army medical techniques and procedures in coordination with TRADOC Deputy Chief of Staff G-8 (Manpower).

Chapter 2
Circular, Procedures and Transition Plan

2-1. Circular

a. TRADOC G-3/5/7, in coordination with the Office of the Command Surgeon and the AMEDDC&S HRCoE, will provide policy and training materials as it relates to standard medical practices.

b. Military doctrine supports an integrated operational medicine support system to triage, treat, evacuate, and return Soldiers to duty in the most time efficient manner. Applying the principles of tactical combat casualty care to massive hemorrhaging, airway, respiration, circulation, and hypothermia, assessment and response begins at point of injury with self/buddy-aid followed by on-site Combat Lifesaver (CLS)-trained personnel and/or combat medic specialist (military occupational specialty 68W) (Medic). This includes personnel trained in installation approved “First Responder” courses derived from CLS as the foundation of the program (e.g., 75th Ranger Regiment, Ranger First Responder, XVIII Airborne Corps, Dragon First Responder, III Corps, Phantom First Responder, etc.). CLS-trained and 68W personnel are capable of responding to an incident, providing the necessary interim support, and requesting transportation.

c. The next level of support is medical personnel and facilities capable of providing definitive clinical treatment or advanced trauma management within time standards established by the local Director of Health Services. These advanced trauma capabilities may be available at the local

military treatment facility or civilian treatment centers through established memoranda of understanding agreements. Training assessed by the commander as high-risk requires additional medical support to complement the CLS capability in accordance with Appendix B.

2-2. Procedures

a. TRADOC G-3/5/7, in coordination with the Combined Arms Center, Office of the Command Surgeon, and the Deputy Commanding General Initial Military Training, Operations/Plans, Center for Initial Military Training shall review implementation of this TC, Medical Support to Training, across the command.

b. TRADOC, Office of the Command Surgeon will provide the most current guidance for established medical protocols for treatment, injury reduction, and best practices for medical support to high- and low-risk training in the form of risk tables (Appendix B).

c. Installation commanders and school commandants should use the medical risk matrix tables (Appendix B) and Army Techniques Publication (ATP) 5-19 (Risk Management) when assessing risk.

d. Installation commanders and school commandants should assess and certify the adequacy of medical support to training at least annually. This responsibility is not delegable. Installation commanders and school commandants conducting high-risk training should rehearse their medical support (casualty response, evacuation, and treatment) plan to include mass casualty incidents (MCIs) at least annually. An MCI is any incident in which emergency medical services resources, such as personnel and equipment, are overwhelmed by the number and/or severity of casualties. The success of the casualty response program is directly related to command ownership and emphasis as a leader casualty response rather than medical response. To maximize survival due to battlefield trauma, the U.S. Army Institute of Surgical Research historical data and research supports a maximum time interval of one hour to the point of definitive care. Medical support rehearsals should exercise evacuation chains accordingly.

e. Training developers should use the information contained in the medical support matrix tables in Appendix B in the development of lesson plans and training support packages. Specifically, cross reference any risk assessment that is determined to be high-risk or low-risk with the training categories listed in the tables. The tables contain complementary information identifying the appropriate level of medical support personnel, materials recommendations, and safety precautions for each training event. The tables will also be a useful source for special safety considerations in the lesson introduction. The tables assist the training developer in developing the appropriate safety and risk statements, cautions, notes and warnings for all training products.

2-3. Transition Plan

a. In order to reduce risk to personnel in training, commanders have the ultimate responsibility to ensure the presence of appropriate level of medical care during training, and

they must understand the current medical support to training gaps and properly analyze and mitigate risk at all levels, using Department of Defense Form 2977.

b. This circular provides guidelines for the minimum essential medical support for high- and low-risk training events as determined by command RM. The implementation of these guidelines may not be immediately obtainable or achievable due to current organizations personnel (68W) or equipment (ground ambulance) inventory constraints.

c. Organizations should immediately conduct an initial assessment of the medical support to training gaps that this circular implementation poses and use the resource management process for obtaining requirements/authorizations to meet the minimum described in this circular. In addition, TRADOC Deputy Chief of Staff G-8 (Resource Management) should conduct a manpower and equipment survey to assist TRADOC organizations in determining 68Ws and ambulance requirements using the circular as a basis of allocation for medical support to training. This survey, done in conjunction with TRADOC Resource Managers and Manpower Chiefs at the Centers of Excellence, Schools, and Activities will review medical positions identified on applicable table of distribution and allowances.

d. In the interim, commanders and leaders continue to use the RM process to mitigate overall risk to the lowest level possible in coordination with the installation Director of Health Services. The approval authority for exceptions to this circular is the TRADOC Deputy Chief of Staff G-3/5/7. Exception requests should be submitted through the TRADOC Assistant Chief of Staff G-3/5/7 for approval.

Appendix A
References

Section I
Required Publications

Army regulations (ARs), Department of the Army Pamphlets, Army Doctrine Publications (ADP), Army Doctrine Reference Publications (ADRP), field manuals (FM), and Department of the Army forms are available at the Army Publishing Directorate website (https://armypubs.army.mil). TRADOC administrative publications and forms are available at the TRADOC Administrative Publications website (https://adminpubs.tradoc.army.mil).

AR 40-3
Medical, Dental, and Veterinary Care

AR 40-68
Clinical Quality Management

AR 611-75
Management of Army Divers

TRADOC Regulation (TR) 350-6
Enlisted Initial Entry Training Policies and Administration.

TR 350-36
Basic Officer Leader Training Policies and Administration

TR 350-70
Army Learning Policy and Systems

Department of the Army Pamphlet 385-90
Army Aviation Accident Prevention Program

TRADOC Pamphlet 350-70-9
Budgeting and Resourcing

TRADOC Pamphlet 350-70-14
Training and Education Development in Support of the Institutional Domain

TC 4-02.1
First Aid

TC 8-800
Medical Education and Demonstration of Individual Competence

ATP 5-19
Risk Management

Soldier Training Publication 21-1-SMCT
Soldier's Manual of Common Tasks Warrior Skills Level 1

Section II
Related Publications

AR 350-1
Army Training and Leader Development

AR 385-10
Army Safety Program

AR 600-8-4
Line of Duty Policy, Procedures, and Investigations

ATP 4-02.2
Medical Evacuation

ATP 4-02.5
Casualty Care

Department of Defense Instruction 6055.06
DoD Fire and Emergency Services Program

TR 10-5
U.S. Army Training and Doctrine Command

TR 10-5-1
Headquarters, U.S. Army Training and Doctrine Command

TRADOC Pamphlet 350-70-1
Training Development in Support of the Operational Domain

Section III
Prescribed Forms

Department of Defense Form 2977
Deliberate Risk Assessment Worksheet

Section IV
Referenced Forms
This section contains no entries.

Appendix B
Medical Support Tables
Tables B-1 through B-4 depict the medical risk matrix process for activities when assessed as high risk with the appropriate level of medical support to complement the CLS capability. Table B-5 depicts the medical risk matrix process for events when assessed as low risk that do not require additional medical support other than the CLS capability. The medical support tables list training events and the minimum additional support for those events if determined as high risk and provide an approach to planning and using medical support resources to ensure timely responses in the event of injuries to Soldiers.

B-1. Medical Support to High-Risk Training

Table B-1
Medical Support to Special Training Events

Training Event	Medical Coverage	Evacuation Platform [1]
Chemical, biological, radiological, and nuclear defense, live agent	Provider[2]	Ambulance[3]
Ranger School, Sapper Leader Course	Medic[4]	Ambulance
Mountain operations, free climbing	Medic	Ambulance or NSE[6]
Survival, evasion, resistance and escape	Medic	Ambulance
Tactical vehicle maneuvers (tracked and wheeled)	Medic	Ambulance
Petroleum, oil, and lubricants suppression	Medic	Ambulance

1. **Evacuation platform**. The Army medical evacuation system consists of ground and air evacuation platforms (see Army Regulation 40-3). Proper planning in the event that medical evacuation is critical. Medical evacuation plans must be incorporated into all high-risk training plans, including pre-coordination with the military treatment facility and local medical emergency services as determined by local evacuation procedures and military treatment facility policy.
2. **Provider**. Providers must have completed the Medical Management of Chemical and Biological Casualties course, the Field Management of Chemical and Biological Casualties course, or other Office of the Surgeon General and US Army Medical Research Institute of Infectious Diseases approved training.
3. **Ambulance**. An ambulance is a vehicle designed or configured for the medical evacuation mission, with event and injury specific medical equipment to provide en route continuity of care by trained medical personnel (minimum 1 medic and 1 driver (CLS trained within 1 year.
4. **Medic**. See TC 8-800 and AR 40-68 for qualifications of the combat medic specialist, military occupational specialty 68W (Medic). Medics qualified to provide coverage for high-risk training events are required at a minimum to maintain current certification by the National Registry of Emergency Medical Technicians.
5. **Non-standard evacuation vehicle (NSE).** NSE may also be referred to as casualty evacuation (CASEVAC). NSE/CASEVAC are generally used for less severe injuries or when medical evacuation assets are unavailable, and should be augmented by a combat medic or combat lifesaver when possible. For unit training events that have historically resulted in moderate to severe injuries, commanders should upgrade from NSE to Ambulance for treatment and evacuation.
6. **NSE with litter transport shock mitigation system (LTSMS)** for spinal cord and traumatic brain injuries. As of December 2017, LTSMS is the most current system item listed by AMEDDC&S HRCoE Medical Research and Material Command for the Combat Casualty Care Support System.
7. **Diving medical technician (DMT).** See AR 611-75 for qualifications of a DMT.
8. **Combat lifesaver (CLS).** See AR 350-1 for training requirements and qualifications of the CLS or equivalent course with CLS as a foundation.

Table B-2
Medical Support to Live Fire and Explosive Ordnance Disposal Operations

Training Event	Medical Coverage	Evacuation Platform[1]
Explosive ordnance disposal, demolitions, mines	Medic[4]	Ambulance[3]
Live fire & maneuver exercises (buddy team, move under direct fire, etc.)	Medic	Ambulance
Live fire - large caliber automatic weapons (.50 caliber and above)	Medic	Ambulance
Grenade launcher, M203/M320, AT-4 (high explosive rounds), hand grenade, indirect fire 60mm caliber or greater	Medic	Ambulance

Table B-3
Medical Support to Waterborne Operations

Training Event	Medical Coverage	Evacuation Platform[1]
Deep dives	DMT[7]	Ambulance[3]
Underwater construction	DMT	Ambulance
Small boat	Medic[4]	NSE[5]

Table B-4
Medical Support to Aerial and Air Assault Operations

Training Event	Medical Coverage	Evacuation Platform[1]
Airborne operations (includes tower and jump weeks of airborne school)	Medic[4]	Ambulance[3]
High altitude low opening operations	Medic	Ambulance
Air assault operations	Medic	Ambulance or NSE[6]
Fast roping, fast rope insertion/extraction system (FRIES)/ special patrol insertion/extraction system (SPIES), tower and urban terrain rappelling (includes with/belay)	Medic	Ambulance or NSE

B-2. Medical Support to Low-Risk Training

Table B-5
Medical Support to Training Events (Low-Risk Training)

Training Event	Medical Coverage	Evacuation Platform[1]
Live fire - rifle marksmanship, field fire, record fire (small arms)	CLS[8]	NSE[5]
Gas (CS) chamber	CLS	NSE
Combative hand-to-hand fighting techniques	CLS	NSE
Field training exercise/ situational training exercise (STX)	CLS	NSE
Recovery operations during driver training (Wheeled & Tracked)	CLS	NSE
Military operations in urban terrain	CLS	NSE
Stream crossing and operations in/over water	CLS + CPR*	NSE
Poncho raft, swamp movement	CLS + CPR	NSE
Combat water survival training	CLS + CPR	NSE
Land navigation (day & night)	CLS	NSE
Foot march / road march	CLS**	NSE
Conditioning and confidence obstacle courses	CLS	NSE

* **Note:** Proper risk management assessment results in a low-risk assessment (ATP 5-19).
Casualty response capability differs between CLS and the Medic. Currently CLS Soldiers aren't trained in cardiopulmonary resuscitation (CPR), fluid administration, potentially-concussive event (PCE)/traumatic brain injury (TBI), spinal injury, and eye trauma, to name a few.
** **Note:** Upgrade to Medic when distance, time, and terrain result in moderate to high-risk despite mitigation measures.

Appendix C
Potential Injuries Tables
This appendix describes potential worst-case injuries from high-risk or extremely high-risk training events to assist with the RM process decisions and lists corresponding medical treatment and equipment resources to ensure a timely response.

C-1. Potential Injuries with High-Risk Training

Table C-1
Special Training Events

Training Event	Potential Injuries	Treatment / Equipment
Chemical, biological, radiological, and nuclear defense, live agent	Multiple casualties, inhalation burns, eye injury	Triage, respiratory support, burn treatment, intravenous (IV) fluids, transport
Ranger School, Sapper Leader Course	Multiple casualties, heat and cold injuries, extremity trauma, lacerations, blunt trauma, PCE/TBI, spine injury	Triage, bandages, IV fluids, advanced treatment as required, immobilization/transport
Mountain operations, free climbing	Multiple casualties, heat and cold injuries, extremity trauma, lacerations, blunt trauma, PCE/TBI, spine injury	Triage, bandages, IV fluids, advanced treatment as required, immobilization/transport
Vehicle maneuver training (wheeled & tracked)	Mass casualties, crushing injury, blunt trauma	Bandages/splints, immobilization/transport
Petroleum, oil, and lubricants suppression	Severe burns, extremity trauma, internal trauma, smoke inhalation	Triage, bandages, immobilization/transport, fire and rescue

Table C-2
Live Fire and Explosive Ordnance Disposal Operations

Training Event	Potential Injuries	Treatment / Equipment
Explosive ordnance disposal, demolitions, mines	Multiple casualties, Blunt trauma, penetrating trauma, extremity trauma, lacerations, spine injury, eye injury, burns, blast overpressure injury, PCE/TBI	Triage, bandages, IV fluids, advanced treatment as required, immobilization/transport
Live fire & maneuver exercises (buddy team, move under direct fire, etc.)		
Live fire - large caliber automatic weapons (i.e., .50 caliber and above)		
Grenade launcher, M203/M320, AT-4 (high explosive rounds), hand grenade, indirect fire 60mm caliber or greater		

Table C-3
Waterborne Operations

Training	Potential Injuries	Treatment / Equipment
Deep dives, underwater construction	Decompression illness, cold injury, extremity trauma, near drowning, crushing injury, blunt trauma, MCI	Chamber, resuscitation equipment, CPR, IV fluids, bandages, splints
Small boat operations	Cold injury, extremity trauma, near drowning, crushing injury, blunt trauma, MCI	CPR, IV fluids, bandages, splints

Table C-4
Aerial and Air Assault Operations

Training	Potential Injuries	Treatment / Equipment
Airborne operation (includes tower and jump weeks of Airborne School)	Blunt trauma, extremity trauma lacerations, PCE/TBI, Spine injury, MCI	Fire and rescue, triage, advanced treatment as required, bandages/splints, IV fluids, burn treatment, immobilization/transport
High altitude low opening operations fast roping, FRIES/SPIES, tower and urban terrain rappelling (includes w/belay)	Blunt trauma, extremity trauma, PCE/TBI, spine injury, MCI	Treatment as required, triage, bandages/splints, IV fluids, immobilization/transport

C-2. Potential Injuries with Low-Risk Training

Table C-5
Training Events

Training	Potential Injuries	Treatment / Equipment
Field training exercise/ situational training exercise (STX)	Multiple casualties, heat and cold injuries, extremity trauma, lacerations, blunt trauma, PCE/TBI, eye injury	Triage, bandages/splints, advanced treatment as required, and immobilization/transport
Rifle marksmanship, field fire, record fire (small arms)	Heat and cold injuries, eye injury	Eye protection
Vehicle recovery operations during driver training (wheeled & tracked)	Crushing injury, blunt trauma	Bandages/splints, and immobilization/transport
Land navigation (day & night)	Environmental injury, extremity trauma, PCE/TBI, eye injury	Bandages/splints,

Table C-5
Training Events

Training	Potential Injuries	Treatment / Equipment
		immobilization/transport, eye protection, iced sheets
Foot march / road march, 4 kilometer (K), 8K, 12K or longer	Environmental injury, extremity trauma	Bandages/splints, and immobilization/transport
Conditioning and confidence obstacle courses	Extremity trauma, PCE/TBI	Bandages/splints, and immobilization/transport
Gas (CS) chamber	Inhalation	Removal
Combatives; hand-to-hand fighting techniques	Extremity trauma, PCE/TBI	Bandages/splints and immobilization/transport
Poncho raft, water survival training	Cold injury, extremity trauma, near drowning	CPR, bandages/splints and immobilization/transport
Combat water survival training	Near drowning	CPR

Glossary

Section I
Abbreviations

AMEDDC&S	U.S. Army Medical Department Center and School
AR	Army Regulation
ATP	Army Techniques Publication
CASEVAC	casualty evacuation
CLS	combat lifesaver
CPR	cardiopulmonary resuscitation
CS	2-chlorobenzylidene malononitrile
DMT	diving medical technician
FRIES	fast rope insertion/extraction system
HRCoE	Health Readiness Center of Excellence
IV	intravenous
MCI	mass casualty incident
NSE	non-standard evacuation vehicle
PCE	potentially concussive event
RM	risk management
SPIES	special patrol insertion/extraction system
TBI	traumatic brain injury
TC	TRADOC Circular
TR	TRADOC Regulation
TRADOC	U.S. Army Training and Doctrine Command

Section II
Terms

Advanced trauma management - Resuscitative and stabilizing medical or surgical treatment provided to patients to save life or limb and to prepare them for further evacuation without jeopardizing their well-being or prolonging the state of their condition. (ATP 4-02.5)

Section III
Special Abbreviations and Terms
This section contains no entries