

Chapter 18

PHYSICIAN ASSISTANTS IN TACTICAL MEDICINE TRAINING PROGRAMS

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Introduction

To support the US Army warfighter, physician assistants (PAs) provide primary instruction and oversight to tactical medicine training programs in multiple organizations. Medics, nurses, PAs, and physicians receive training on initial entry to the military or as part of deployment or sustainment training. The branch assignments officer selects PAs for the training programs based on their qualifications and combat experience.

Unit Structure

The Department of Operational Medicine (DoOM) of the Medical Center of Excellence (MEDCoE) at Joint Base San Antonio–Fort Sam Houston (JBSA-FSH), Texas, is the parent organization for the tactical medicine training programs PAs serve in. This organization is newly aligned, and currently has a proposed unit structure. The DoOM encompasses the Department of Combat Medic Training (DCMT), the Brigade Combat Casualty Course (BCT3), the Tactical Combat Medicine Training (TCMC) program, the Defense Medical Readiness Training Institute (DMRTI) Combat Casualty Care Course (C4), and the Combat Paramedic Program (CPP). Each of these training programs has one to five PAs assigned in dual instructor and leadership roles.

Department of Combat Medic Training

The DCMT annually trains up to 6,500 soldiers to become combat medic specialists (military occupational specialty [MOS] 68W). This makes DCMT the second largest military occupational specialty training program in the US Army (after infantry), and the largest medical training program in the world. The training curriculum is 16 weeks, divided into 6 weeks of Emergency Medical Technician-Basic (EMT-B) training and 9 weeks of tactical medicine training, followed by a culminating field training exercise (FTX).

The EMT-B training is taught by 80 Defense Health Agency (DHA) civilian EMT-B and paramedic instructors, in conjunction with the Academic Standards Department of DCMT, utilizing the National Registry of Emergency Medicine Technicians (NREMT), the national certifying and accrediting agency for prehospital care providers through the Army Emergency Medical Services program. The didactic and hands-on instruction is tested by the administration of six written tests, two hands-on culminating tests, and the NREMT national examination. All medics must pass the NREMT examination prior to proceeding to the FTX. Soldiers who cannot pass the NREMT exam on the third attempt are reclassified in needs-of-the-Army MOSs (those with personnel shortages). The tactical medicine segment is subdivided into limited primary care training (used during sick call) and tactical combat casualty care (TCCC) training. The culminating FTX is a rigorous, 72-hour event held in an austere field environment at the Soldier Medic Training Site (SMTS) at JBSA-Camp Bullis.¹

Organization Structure and Role of the Physician Assistant

The 68W program is led by a team of military and civilian PAs. The program is administered under the Medical Education and Training Campus (METC) through the DHA.² Under METC, the program's senior leader is the department chair, who is an O-5 (lieutenant colonel) PA. The department chair is responsible for the program's nearly 300 civilian and military instructors, academic administration, and management. The chair is dual-hatted as the Combat Medical Specialist Training Branch chief through MEDCoE, which provides service-specific strategic guidance for the 68W MOS. The program director is a civilian PA who provides the program's day-to-day administration

and acts as the chief of staff. The director also frequently assists with the capabilities assessment of related equipment and practice innovations. He or she works with training team leaders, critical care and emergency room nurses, instructors, noncommissioned officers (NCOs), and paramedic-certified civilians to ensure students receive optimal training experiences.

Duties and Responsibilities of the Field Craft Physician Assistant

The three field craft PA O-3 (captain) positions, also known as the “Whiskey team officer in charge (OIC),” are responsible for the overall instruction and conduct of field craft training during all scheduled training events for their specific team. Team OICs must be credentialed providers to maintain proficiency and support Brook Army Medical Center and satellite clinics. The OIC’s duties include, but not exclusively, periodically reviewing and rewriting lesson plans, reviewing training schedules, serving as subject matter expert on all medical matters and training, counseling up to 35 NCOs and Army civilians, reviewing physical profiles of all initial entry training (IET) soldiers to determine their ability to safely conduct training, and teaching classes of up to 420 IET soldiers.

The OIC actively works with the field craft chief to deconflict resource obstacles and support other field craft and EMT training teams for high-demand instructor events. The OIC must stay current on TCCC guidelines and impending changes to best practices in trauma treatment. He or she develops recommended changes to the curriculum and ensures all instructors are aware of TCCC updates and ways to implement them into the field craft curriculum. The Whiskey team OIC must be prepared to support MEDCoE, DHA, and Army deployments to Central Command, Africa Command, or European Command theaters, as well as local Tank-Automotive and Armaments Command tests for feasibility of replacement or new military technologies.

The successful team OIC will support key MEDCoE instruction by networking with TCMC, the Interservice Physician Assistant Program (IPAP), the Basic Officer Leader’s Course (BOLC), and the Captains Career Course (CCC) to augment high-demand instructor training and testing and potentially becoming credentialed as an associate professor to teach IPAP on an as-needed basis. It is also possible to apply for long-term health education and training (LTHET) to obtain a DMSc

in PA studies or clinical education during the assignment because this position also meets the requirements for a utilization tour. Whiskey team OICs may also transition to a company command position if available.

Duties and Responsibilities of the Field Training Exercise Officer in Charge

The 68W FTX branch chief is an O-3 or O-4 65D PA who is responsible for the overall instruction and management of the SMTS. Additionally, they continuously update the FTX to align it with current doctrine and simulate large-scale ground combat.

Desired Skills and Attributes

The desired skills and attributes for a field craft or FTX PA are leadership, trauma experience, medical and tactical competence and experience, and the ability to be a thorough and resourceful planner and team builder.

Brigade Combat Team Trauma Training

The MEDCoE BCT3 is a 5-day course that teaches advanced point-of-injury care to combat medic specialists (68W) and flight medics within their 90-day predeployment window, in accordance with Department of the Army EXORD (execute order) 096-09, *Mandatory Pre-Deployment Trauma Training (PDTT) for Specified Medical Personnel and the Regionally Aligned Forces (RAF)*.³ Annually, the BCT3 conducts an average of 7 courses at Camp Bullis, and approximately 20 courses at 10 different Forces Command (FORSCOM) installations using a mobile training team (MTT), training units of over 2,000 combat medics in approximately 20 separate iterations.

BCT3 training focuses on saving lives and addressing the four most common causes of preventable death on the battlefield: massive hemorrhage from junctional and extremity wounds, airway compromise, tension pneumothorax, and hypothermia.¹ BCT3 also teaches current tactics, techniques, and procedures (TTPs) derived directly from lessons learned in the operational environment, and provides an introduction to prolonged field care. In addition to conducting training, all members of the team must remain current on emerging point-of-injury trauma

techniques and recommendations from the Committee on Tactical Combat Casualty Care and the Joint Trauma System.¹

Organization Structure and Role of the Physician Assistant

The BCT3 branch chief is an O-4 PA OIC. A second O-3 PA position serves as the MTT leader (though either PA can perform this role as needed), providing the capability for simultaneous training events. The training team cadre consists of active duty NCOs in the rank of staff sergeant and sergeant first class and two DHA civilians. The PAs and senior NCOs must have at least two combat tours each. The PA is supervised by the chief of the Tactical Medicine Readiness Division, who assists with guidance on training and efficiency ratings of the team NCOs.

Prerequisites

Those seeking a position as a BCT3 PA team leader require:

- the rank of captain with completion of the Army Medical Department (AMEDD) CCC;
- a history of assignment to a battalion, squadron, or team PA position for 4 years or more; and
- two or more combat deployments with trauma experience.

Roles and Responsibilities

- Serves as OIC and program director for the BCT3 course.
- Responsible for course direction, improvement, coordination, and guidance of the mandatory predeployment trauma training for 68W combat medics and flight medics.
- Ensures didactic curriculum and practical exercises are current and relevant for Role 1 and 2 medical care on the battlefield.
- Responsible for leading, mentoring, developing, training, instructing, and supervising the MTT's 20 NCOs and 2 civilians.
- Responsible for equipment and supplies worth over \$3 million.

Desired Skills and Attributes

A successful BCT3 OIC will:

- have excellent communication and interpersonal skills;

- be able to conduct operations with minimal oversight or guidance, especially during MTT missions;
- be comfortable interacting with brigade and division staff and command teams;
- builds relationships with other MEDCoE programs such as TCMC, IPAP, and BOLC, and be prepared to assist as needed; and
- be a highly competent medical provider and maintain credentials at Brooke Army Medical Center and outlying clinics.

Pertinent Program Resources

- The milsuite.mil BCT3 organizational webpage provides administrative and course content information.⁴
- The deployedmedicine.com website provides current TCCC guidelines, evidence-based medicine explanations, and classes.¹
- The prolongedfieldcare.org website provides additional resources to assist deploying personnel.⁵
- The Joint Trauma System provides common practice guidelines and tools for deployed medical personnel.⁶

Tactical Combat Medical Care Course

The TCMC course provides the PA, physician, nurse practitioner, and senior medical NCO with a practical working knowledge of how to manage injured patients in a combat environment from point of injury to Role 1 or Role 2. The course information is based on TCCC, known trauma resuscitation methods, lessons learned from combat, and newly developed technology. Training consists of didactic lecture and hands-on practical training conducted at JBSA-FSH, where combat casualty management is taught in a simulated tactical environment. The course lasts 5 days and has 22 to 24 iterations per year.⁷

Organization Structure and Role of the Physician Assistant

Initially created by active duty PAs, TCMC currently employs two active duty PAs and three civilian PA instructors who plan, coordinate, and instruct the course. The senior active duty PA is also the section OIC.⁷

Prerequisites

Those seeking a PA position at the TCMC course require:

- the rank of captain with completion of the AMEDD CCC for those seeking the position of instructor;
- the rank of major for those seeking the position of OIC;
- a history of assignment to a battalion, squadron, or team PA position for 4 years or more; and
- 2 or more years of experience in combat trauma.

Defense Medical Readiness Training Institute Combat Casualty Care Course

DMRTI's C4 program, a faculty affiliate of the National Association of Emergency Medical Technicians, trains 750 triservice and international medical officers annually in the TCCC curriculum, supporting prolonged field and prehospital care training and education. C4 is an 8-day course consisting of a classroom-based professional program and a prolonged FTX. The course also requires prerequisite distance learning through the Joint Knowledge Online Emergency Preparedness Response Course–Clinician Course.

The professional program is targeted according to the student's medical field: physicians, dentists, and some PAs receive Advanced Trauma Life Support–Operational Emphasis; nurses receive Trauma Nursing Core Course–Operational Emphasis; all others receive Pre-Hospital Trauma Life Support.

The FTX is conducted in a forward operating base environment, in which C4 students must demonstrate medical proficiency in all three phases of TCCC (care under fire, tactical field care, and tactical evacuation care) while conducting mission-oriented exercises based on current combat theater scenarios or potential scenarios in other threat locations. Hands-on chemical, biological, radiologic, and nuclear training is included. The exercise integrates mission-oriented medical care in the following contexts: military operations in urban terrain, village stability operations, and tactical evacuation care on a Sikorsky UH-60 Black Hawk helicopter simulator, a simulated Role 2 facility, a tactical medicine obstacle course, and a mass casualty situation.

Organization Structure and Role of the Physician Assistant

DMRTI is under the DHA, which reports directly to the Assistant Secretary of Defense for Health Affairs. Its director is an Army, Navy, or Air Force physician. An Army PA serves as the C4 branch chief or deputy branch chief, and the staff consists of medics and corpsmen from the Army, Navy, and Air Force. The triservice role allows for joint staffing, training, and equipping to meet the requirements of TCCC training.

Prerequisites

Those seeking a position as the C4 PA require:

- the rank of major;
- completion of Intermediate Level Education training;
- a history of assignment and deployment in a brigade or regiment PA position for 2 years; and
- experience in combat trauma.

Combat Paramedic Branch

The Combat Paramedic Branch falls within the Combat Medic Division of the MEDCoE's DoOM. The branch is responsible for the annual total force generation of the Army's flight medic (68WF2) populations within all service components. This requirement includes initial training for 190 to 210 soldiers, as well as recertifying over 160 flight medics annually. Initial training for flight medics includes the 30-week CPP (Combat Paramedic Program), the 8-week Critical Care Course, and the 6-week AMEDD Aviation Crew Member Course (which falls within a separate MEDCoE department, the Department of Aviation Medicine at Fort Rucker, Alabama). The Combat Paramedic Branch also conducts the 2-week recertification course nine times annually.

Organization Structure and Role of the Physician Assistant

There are several opportunities for active duty PAs in the Combat Paramedic Branch, and more specifically the CPP. The chief of the Combat Paramedic Branch is an O-5 (lieutenant colonel) 65D and

functions as both the OIC/branch chief and the CPP program director. In addition to the program director, the CPP has three O-4 (major) PAs who act as OICs for each block of instruction. Each OIC is responsible for the instruction in either block I, II, or III within the 30-week curriculum.

The CPP is a redesigned pilot course utilizing lessons learned and best practices from the previous Expeditionary Combat Medic program, as well as the legacy paramedic course, which was focused on civilian emergency medical services. The new course integrates paramedic curricula into an Army training program designed to meet the requirements of multi-domain operations and large-scale combat operations. The desired outcome is to produce operationally focused paramedics trained in prehospital medicine, as well as TCCC (to preserve life), prolonged care (to sustain life), force health protection (to protect the force), and focused primary care (to sustain the force). The course is expected to grow to include ground evacuation medics and austere duty medics (eg, security force assistance brigades and FORSCOM civil affairs battalions). Current graduates will proceed to the second and third courses of flight paramedic training.

Roles and Responsibilities

Responsibilities of the branch chief include:

- management, direction, oversight, and control of the flight paramedic program to meet the requirements of current and future operating environments, as well as the National Defense Authorization Act of 2013 (NDAA),⁸ which stipulated all flight medics be paramedic certified and critical care trained;
- CPP direction, oversight, improvement, and coordination to meet requirements in TCCC, prolonged care, primary care, and force health protection;
- ensuring evidence-based didactic curricula and practical exercises are current, relevant, and rigorous to prepare medics for the challenges of multi-domain operations and large-scale combat operations;
- leading, mentoring, developing, training, instructing, and supervising a team of three PAs, two critical care nurses, six civilians, and eighteen senior NCOs; and
- accountability and execution of over \$5 million in equipment and supplies annually.

Responsibilities of team chiefs include:

- management, direction, oversight, and control of 7 to 10 weeks of assigned instruction, including the continuous use of the TRADOC “analysis, design, develop, implement, evaluate” (ADDIE) model to identify course requirements and ensure evidence-based didactic curricula and practical exercises are current, relevant, and rigorous to prepare medics for the challenges of multi-domain operations and large-scale combat operations; and
- leading, mentoring, developing, training, instructing, and supervising a team five or six personnel, comprised of experienced senior NCOs and civilians.

Prerequisites

Those seeking a position as the Combat Paramedic Branch chief require:

- the rank of major (promotable) or lieutenant colonel with completion of the Army’s Intermediate Level Education;
- a history of assignment to a battalion, squadron, or team PA position for 4 years or more; and
- a minimum of 1 year’s experience serving as an aeromedical PA (65DM3).

Those seeking a position as a CPP team chief require:

- the rank of major (promotable) or lieutenant colonel (completion of the Army’s Intermediate Level Education preferred); and
- a history of assignment to a battalion, squadron, or team PA position for 4 years or more.

For both positions, experience in combat trauma, certification as a paramedic, experience as an AMEDD special operations officer (S1), and being an LTHET graduate are preferred.

Desired Skills and Attributes

Those seeking a position as the Combat Paramedic Branch chief or a CPP team chief must:

- possess superior communication skills and be able to quickly

establish rapport with and commitment from those both within and outside the organization;

- have exceptional technical competency and be able to plan, prepare, and execute training to a high degree of excellence;
- be comfortable leading and empowering advanced practice medical NCOs and civilians to identify problems, develop solutions, and implement plans to achieve resolutions; and
- be agile, adaptable, and willing to alter course to achieve desirable outcomes.

Conclusion

The Army's operational medicine training encompasses a wide swath of programs. Selected PAs who serve as leaders and instructors in these courses affect up to 9,000 medics, physicians, PAs, and nurses annually, across the spectrum of services. The experience and tactical and technical expertise of these PAs provide an excellent foundation of lifesaving skills and tactics to the operational force, and their importance to Army medicine at large cannot be overstated. Army PAs have served in an irreplaceable role in cutting-edge instruction and leadership for 7 decades, and by serving in the roles described here, will continue to lead in these capacities.

References

1. Committee on Tactical Combat Casualty Care. *Tactical Combat Casualty Care Guidelines 01 August 2019*. CoTCCC; 2019. Accessed August 10, 2020. <https://deployedmedicine.com/>
2. Defense Health Agency. Medical Education & Training Campus website. Accessed August 10, 2020. <http://www.metc.mil/academics/DCMT/>
3. Headquarters, Department of the Army. *Mandatory Pre-Deployment Trauma Training (PDTT) for Specified Medical Personnel*. HQDA; 2014. EXORD 096-09.
4. Brigade Combat Trauma Training Team Milbook website. Accessed August 10, 2020. <https://www.milsuite.mil/book/groups/brigade-combat-team-trauma-training-bct3>

5. The Prolonged Field Care Working Group. Prolongedfieldcare.org website. Accessed August 10, 2020. <https://prolongedfieldcare.org/>
6. US Department of Defense. Joint Trauma System website. Accessed August 10, 2020. <https://jts.amedd.army.mil/>
7. Army Training Requirements and Resources System website. Accessed August 10, 2020. <https://www.atrrs.army.mil/atrrs2.aspx>
8. US Congress. National Defense Authorization Act for Fiscal Year 2013. 2012. Accessed August 10, 2020. <https://www.congress.gov/112/plaws/publ239/PLAW-112publ239.pdf>