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Medic for the Millennium: The U.S. Army 91W Health Care Specialist

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The new millennium challenges the Army Medical Department to provide good care in a variety of circumstances from peacetime to operations other than war to combat. To provide care in this broad variety of missions, the Army Medical Department needs flexible providers. The new 91W health care specialist enlisted medic is designed to meet this need. By coupling skills in emergency care, evacuation, medical force protection, and primary care with certification in emergency medical technology, the 91W initiative will fill the needs of the Army now and into the new millennium.

Introduction

The U.S. Army is embarking on the largest reengineering of the enlisted combat medic in history. The changed world of the post-cold war era has thrust new missions and responsibilities on the U.S. military. The Army Medical Department (AMEDD) has responded to the challenge by completely redesigning the combat medic. A new enlisted military occupational specialty (MOS) designation, 91W, has been assigned and will be phased in over an 8-year period. This new MOS will join the forces of the 91B medical specialist and the 91C practical nurse MOSs into a combined specialty. The 91W health care specialist, as the formal title suggests, will be a trained technician at home in both the foxhole and the hospital. This article will explore the origins, training, transition, and sustainment of the 91W health care specialist, medic for the millennium.

Modern History of the Medic

The modern combat medic has its roots in the American Civil War, when enlisted soldiers served as hospital stewards. In 1887, the Hospital Corps was established, the forerunner of the Army Medical Department enlisted corps. Through the next century and until the end of the cold war, the medic, or MOS 91B medical specialist, as it became known, served with distinction. The training and utilization of the 91B today is largely conventional and does not differ significantly from that during the Vietnam era. The Army briefly considered a major overhaul of the medic as part of the "Division '86" initiative in the mid 1980s, but it was not fully implemented.¹ In the early and mid 1990s, there were additional calls for improved combat medic

training.²⁻⁵ In the late 1990s, the rapid evolution of U.S. military missions became apparent. Peace enforcement, humanitarian missions, and operations other than war dramatically increased in frequency.^{6,7} Patterns of combat medical support also changed, with a shift toward longer evacuation routes, smaller in-theater medical presence or "footprint," and less tolerance of casualties.^{5,8} These factors, coupled with a dramatic increase in available medical technology, placed enormous pressure on the far-forward expectations of combat medics.⁹

During the 1990s, significant changes also occurred within the U.S. Army. The post-cold war drawdown required medics with greater training and flexibility to meet the competing demands of Tricare (peacetime beneficiary care) and operational medicine.¹⁰ Internal manpower and MOS-specific requirements provided further incentives for the Army to reengineer the medic.⁷ Finally, a major study entitled *Medic Training 2000* conducted at the Army Medical Department Center and School highlighted the pressing need for greater proficiency and broader scope of combat medic training.¹¹

Several existing models were examined by the Army in designing the new MOS, including the special operations enlisted medics, Air Force and Navy medical technicians and corpsmen, and civilian emergency medical technicians (EMTs). These models were cast against the needs of combat, operations other than war, and beneficiary care to produce the final 91W design.⁷

The initiative is slated to officially begin on October 1, 2001, and will be fully complete in 6 years for the active component and 8 years for the reserve component (Army Reserve and Army National Guard).

The New Medic

The 91W health care specialist possesses four major core competencies: emergency care, evacuation, medical force protection, and limited primary care (Table I).

Emergency care includes the familiar skills of combat casualty care and trauma resuscitation. Specific skills include hemorrhage control, splinting, bandaging, advanced airway management, intravenous fluid therapy, decompression of tension pneumothorax, and shock management. The intent is to enable the 91W to treat the range of casualties expected from conventional battles. Additionally, there will be an emphasis on the initial care of disease and nonbattle injuries and other noncombat conditions. Military experiences in the 1990s have highlighted the high incidence of respiratory, orthopedic, dermatologic, dental, and psychiatric diseases.¹²⁻¹⁴ The 91W will be trained to provide initial management for these and other emergency medical conditions.

The 91W will also be trained to provide emergency care for the medical effects of weapons of mass destruction. The lessons learned during the Persian Gulf War showed that nuclear, bio-

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TABLE I
91W CORE COMPETENCIES

Emergency care
Evacuation
Medical force protection
Limited primary care

logical, and chemical training among medical personnel was inadequate.¹⁵ Additionally, the important role played by the military in domestic preparedness and consequence management of terrorism highlights the need for expanded training in this area.¹⁶

It was also discovered during the Persian Gulf War that the narrow focus of medic training on acute trauma (to the nearly total exclusion of other operational medical conditions) was counterproductive.¹⁵ Basic medical competencies such as basic life support, medication administration, and assistive skills (e.g., patient preparation, drape, and assistance during minor invasive procedures) are also needed in wartime and will be a part of 91W training.

As a result of military experiences in humanitarian missions, the 91W medic will also have an ability to provide a basic response to emergencies in special populations, including women, children, and the elderly.¹⁷ This latter aspect also helps the 91W medic to support the peacetime Tricare mission in fixed hospitals and clinics.

The second core competency, evacuation, reflects the AMEDD priority of "clearing the battlefield" and providing en route medical care. Future battles will likely result in prolonged evacuation times.⁷ Transport-related interventions such as oxygen therapy, urinary bladder catheterization, and nasogastric tube insertion will be in the 91W repertoire.¹⁸ Additionally, the 91W will train on the new generation of physiologic monitors (noninvasive blood pressure, temperature, pulse and respiratory rate, and pulse oximetry) being placed in field ambulances.⁹

Medical force protection is the term used to describe the medical interventions designed to prevent force degradation from disease and nonbattle injuries. Even today, diarrheal disease, combat stress, heat and cold injury, and other preventable diseases continue to plague modern forces.^{19,20} From the perspective of the 91W combat medic, this includes basic principles of preventive medicine, medical threat assessment, combat stress control, and field sanitation.

The fourth core competency is limited primary care and is intended to fill the large void of care found in small, forward-deployed operational teams such as platoons or squads on patrol. Throughout recent history, these teams have relied on their "doc" or medic to treat minor complaints such as blisters, sprains, or headaches. Unfortunately, medic training of the past did not adequately address this practice.²¹ The new 91W medic will possess this basic skill and will provide limited ambulatory care using written protocols under the supervision of the unit surgeon or physician assistant (PA).¹⁸ An added benefit of this training will be to provide the physician or PA with a more capable assistant during sick call.

The AMEDD will keep the system of additional skill identifiers (ASIs) associated with the former 91B and 91C MOSs. ASIs are essentially enlisted subspecialties under the parent MOS and include the Y6 cardiovascular specialist (cardiac catheterization

technician) and the M3 dialysis specialist. All previous 91B and 91C ASIs will fall under the 91W MOS. In addition, a new ASI will be formed from soldiers holding 91C licensed practical nurse credentials. This subspecialty will be designated 91WM6.

Training

The Army has made a genuine investment by increasing initial 91W combat medic training by 60%, from 10 to 16 weeks. This additional training time will afford an increase in both the depth and breadth of knowledge and skill. The length of the field training exercise will double to 2 weeks, and for the first time ever the Army medic will have a modest clinical rotation in the initial training phase. Significantly, all initial entry-training graduates (and incumbents) will ultimately be required to take and pass the National Registry emergency medical technician basic (EMT-B) certification examination. This is a critical milestone, because it establishes a baseline competence in emergency care (and elements of evacuation) for all 91W medics in the Army.⁷ (EMT-B certification is universally recognized in the United States as the initial level of competence for dedicated medical technicians practicing emergency care in the field.)

To ensure the long-term success of the program, the quality of new candidates for the 91W MOS will increase commensurate with the demands of certification and competence. Minimum entry scores on the standard military entrance examination will increase to the level found in the former 91C (licensed practical nurse) MOS.

Not only will training length increase, but there will also be a shift in the methods of training. Skill mastery and the principles of adult learning will be emphasized. New tactical medicine techniques, such as the casualty care model proposed by Butler et al.,²² will be incorporated. This concept involves a system of tactical prioritization of medical care, including the innovative "care under fire" technique. This methodology has been expanded and formalized into a comprehensive system of tactical care.¹⁸ More recently, a consensus has emerged on the unique emergency care aspects of urban warfare, and these will be considered for incorporation into the 91W curriculum.²³

The overriding goal will be to train the 91W to be an integral member of the war-fighting team. This is accomplished by focusing training on the far-forward needs of operational troops and ensuring that the 91W is flexible enough to serve in a variety of settings. Another shift in training strategy is to ensure that new 91W graduates (91W10) possess all of the critical skills necessary to successfully serve as entry-level medics. This necessitated moving several skills previously reserved for staff sergeants (skill level 30) to the more junior (privates) level (skill level 10). Table II outlines these and other principles of 91W training.

It is recognized that there is much more to good medic train-

TABLE II
PRINCIPLES OF 91W TRAINING

Train to be an integral member of the war-fighting team
Focus on far-forward care
Flexible enough to serve in a variety of health care settings
Empower entry-level medics (91W10) with all critical skills
Ensure life-long learning and sustainment

ing than medical skills. Because of their role on the operational team, 91W medics must also be good soldiers, with skills in battlefield survival, weapons qualification, and other combat tasks.²⁴ Mastery of soldier skills, or "soldierization," is a pillar of training and will be emphasized throughout the career life cycle of the 91W. Figure 1 graphically depicts the triad of medical skills, soldier skills, and experience and reinforcement that forms the foundation of 91W training. The glue that binds the triad together is skills verification, the most significant of which is EMT-B certification.

To provide all of the enhanced training envisioned for the 91W, significant changes are in store for the combat medic school at the AMEDD Center and School at Fort Sam Houston, Texas. Faculty size is programmed to grow by more than 20%, and instructor/student ratios will improve as a result. More significantly, the faculty will gain dozens of PAs, reflecting the important relationship between battalion PAs and unit medics. Leadership of the school will transfer to a medical corps officer specializing in emergency medicine, ably assisted by a cadre of senior 91W noncommissioned officers (NCOs). A modest contingent of nurse corps officers assisted by 91WM6 practical nurses will teach the basic nursing skills and clinical rotation components of the course. Of course, 91W NCOs and drill sergeants, all specially trained and prepared for their faculty roles, will conduct the majority of training.

Transition and Sustainment

To effectively convert the approximately 34,000 91B medics and 91C practical nurses currently in the active and reserve components, the Army has approved a number of strategies. Each is designed to maximize the potential for soldiers to become fully trained 91Ws while simultaneously minimizing the impact on the force.

Current soldiers with advanced certifications such as National Registry EMT-intermediate or EMT-paramedic will be automatically granted the new MOS. Senior NCOs (promotable sergeants first class and above), by virtue of their executive status, will also be grandfathered on the start date of October 1, 2001.

Several exportable training programs have been developed by the AMEDD Center and School to ease the transition process.²⁵ One program, called the EMT-Basic Bridge course, allows qual-

ified 91B medics and 91C practical nurses to obtain National Registry EMT-basic certification through an abbreviated course. Another course trains EMT-B-certified 91B medics in the key advanced skills expected of the 91W. It focuses on trauma assessment, advanced airway, intravenous fluid therapy, medication administration, and shock management and goes by the acronym Trauma AIMS. Because of the massive scale of the transition effort, the Army has established a 6-year transition period for the active component and 8 years for the reserve component.

To ensure that the newfound skills of emergency care are maintained, a system of skill sustainment is required.²⁶ First, all 91Ws will be required to maintain their National Registry EMT-B and health care provider cardiopulmonary resuscitation certification. The recertification process will ensure that the 91W medic has received appropriate continuing education and will give unit training NCOs a specific mechanism to reverify key skills.

Another tool of sustainment currently under development and prototyping is termed the medical readiness proficiency tables (MedRPT). Modeled after the armor community's "tank table" set of training standards, MedRPT will enable unit commanders to reliably measure the medical skill proficiency of individual medics. MedRPT will be linked directly to EMT standards (thus enabling the recertification process) and may one day be reportable through the chain of command. This latter goal is key to getting line commanders to appropriately prioritize medical training. Competing missions such as vehicle maintenance have long been identified as challenges to providing sufficient time and resources to conduct essential medic training.²⁷

Conclusion

The 91W health care specialist initiative represents a dramatic enhancement in the far-forward capability of the AMEDD. Improved emergency medical skills and emphasis on medical force protection and primary care will help the enlisted medic meet the needs of the Army today and in the new millennium.

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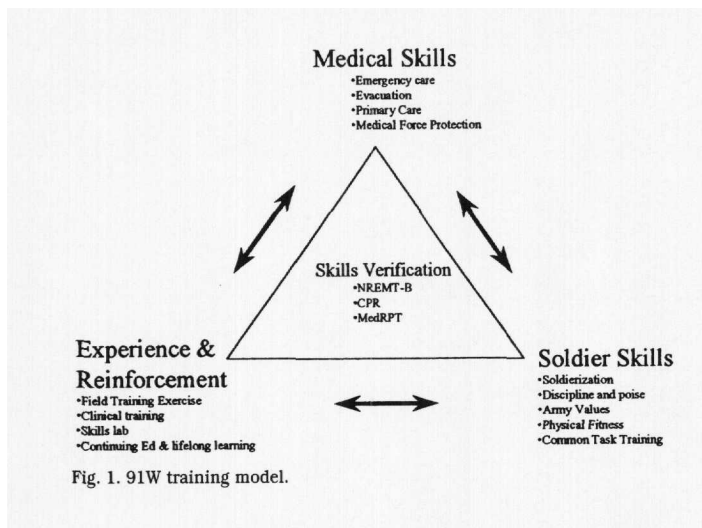


Fig. 1. 91W training model.

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