The Coat of Arms
1818
Medical Department of the Army

A 1976 etching by Vassil Ekimov of an original color print that appeared in The Military Surgeon, Vol XLI, No 2, 1917
The first line of medical defense in wartime is the combat medic. Although in ancient times medics carried the caduceus into battle to signify the neutral, humanitarian nature of their tasks, they have never been immune to the perils of war. They have made the highest sacrifices to save the lives of others, and their dedication to the wounded soldier is the foundation of military medical care.
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Editor in Chief and Director
Dave E. Lounsbury, MD, FACP
Colonel, MC, US Army
Borden Institute
Assistant Professor of Medicine
F. Edward Hébert School of Medicine
Uniformed Services University of the Health Sciences

Military Medical Editor
Ronald F. Bellamy, MD
Colonel, US Army, Retired
Borden Institute
Associate Professor of Military Medicine
Associate Professor of Surgery
F. Edward Hébert School of Medicine
Uniformed Services University of the Health Sciences

Editor in Chief Emeritus
Russ Zajtchuk, MD
Brigadier General, US Army, Retired
Former Commanding General
US Army Medical Research and Materiel Command
Professor of Surgery
F. Edward Hébert School of Medicine
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Deploying a healthy force at any time to any part of the world requires comprehensive and coordinated preventive medicine services. The challenges and the achievements of military preventive medicine in the US Armed Forces are embodied by these soldiers crossing a river in Haiti in 1995. They represent a carefully screened cadre of young Americans who enter military service and benefit from a scientifically sound program to reduce the threat of infectious diseases and injuries during basic training and deployment. When deployed to a harsh environment such as this one, they are prepared for potential hazardous exposures—infectious diseases, climatic extremes, chemical and nuclear exposures, and mental stressors—by military preventive medicine professionals. Military medical research and development provides their commanders with effective countermeasures. Their health is monitored to detect events that threaten individual health and operational effectiveness both in the field and in garrison. Military preventive medicine has always been a fundamental factor for ensuring operational success, but as US military doctrine shifts to emphasize rapid and relatively smaller deployments of forces accompanied by small medical elements, the preventive medicine mission takes on a new urgency.

MILITARY PREVENTIVE MEDICINE
MOBILIZATION AND DEPLOYMENT
Volume 1

Specialty Editor

PATRICK W. KELLEY
Colonel, MC, U.S. Army

Borden Institute
Walter Reed Army Medical Center
Washington, D. C.

Office of The Surgeon General
United States Army
Falls Church, Virginia

United States Army Medical Department Center and School
Fort Sam Houston, Texas

United States Army Medical Research and Materiel Command
Fort Detrick, Frederick, Maryland

Uniformed Services University of the Health Sciences
Bethesda, Maryland

2003
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Contributors

DAVID ARDAY, MD, MPH
Medical Epidemiologist, Office of Clinical Standards and Quality, Health Care Financing Administration, 7500 Security Boulevard, Baltimore, MD 21244

THOMAS J. BALKIN, PhD
Research Psychologist, Chief, Department of Neurobiology and Behavior, Division of Neuropsychiatry, Walter Reed Army Institute of Research, Silver Spring, MD 20910–7500

PAUL L. BARROWS, DVM, PhD
Colonel, Veterinary Corps, US Army (Ret); 156 Crazy Cross Road, Wimberly, TX 78676

GREGORY BELENKY, MD
Colonel, Medical Corps, US Army; Director, Division of Neuropsychiatry, Walter Reed Army Institute of Research, Silver Spring, MD 20910–7500

KENT BRADLEY, MD, MPH
Lieutenant Colonel, Medical Corps, US Army; 7th Infantry Division Surgeon, Fort Carson, CO 80913

LAUREL BROADHURST, MD, MPH
Staff Physician, Weaverville Family Medicine Associates, 117 Hillcrest Drive, Weaverville, NC 28782

RICHARD BROADHURST, MD, MPH
Colonel, Medical Corps, North Carolina Army Guard, Commander, Company C, 161st Area Support Medical Battalion, Weaverville, NC 28782

STEPHANIE BRODINE, MD
Captain, Medical Corps, US Army (Ret); Professor and Head, Division of Epidemiology and Biostatistics, Graduate School of Public Health, San Diego State University, San Diego, CA 92184

JOANNE BROWN, DVM
Colonel, Veterinary Corps, US Army (Ret); Rt 2, Box 152B, Monticello, FL 32344

DORIS BROUWE, MD, MPH
Colonel, Medical Corps, US Army (Ret); President and Chief Executive Officer, Browne and Associates, Inc. Washington, DC 21702

JOHN F. BRUNDAGE, MD, MPH
Colonel, Medical Corps US Army (Ret); Epidemiologist, Henry M. Jackson Foundation for the Advancement of Military Medicine, Army Medical Surveillance Activity, US Army Center for Health Promotion and Preventive Medicine, Aberdeen Proving Ground, MD

A.P.C.C. HOPPERUS BUMA, MD
Commander, Medical Branch, Royal Netherlands Army; Head of Naval Medical Training; PO Box 1010 (MCP 24D), 1201 DA Hilversum, The Netherlands

ROBERT E. BURR, MD
Director of Endocrine Education, Division of Endocrinology, Bayside Medical Center, 3300 Main Street, Suite 3A, Springfield, MA 01199

LESTER C. CAUDLE III, MD, MTM&H
Lieutenant Colonel, Medical Corps, US Army; Office of The Surgeon General, 5111 Leesburg Pike, Falls Church, VA 22041–3206

DALE A. CARROLL, MD, MPH
Colonel, Medical Corps, US Army (Ret); Senior Vice President, Medical Affairs and Performance Improvement, Rockingham Memorial Hospital, 235 Cantrell, Harrisonburg, VA 22801

KATHRYN L. CLARK, MD, MPH
Infectious Disease Analyst, Armed Forces Medical Intelligence Center, Fort Detrick, Frederick, MD 21702–5004

BRIAN J. COMMONS, MSPH, MS
Colonel, Medical Service, US Army; US Army Center for Health Promotion and Preventive Medicine, Europe, CMR 402, APO AP 09180

CARLOS A. COMPERATORE, PhD
Research Psychologist, US Coast Guard Research and Development Center, Niantic, CT 06357

DAVID N. COWAN, PhD, MPH
Lieutenant Colonel, Medical Service, US Army; Special Projects Officer, Division of Preventive Medicine, Walter Reed Army Institute of Research, Silver Spring, MD 20910–7500

STEPHEN C. CRAIG, DO, MTM&H
Colonel, Medical Corps, US Army; Chief, Preventive Medicine Service, Keller Army Community Hospital, West Point, NY 10996

PATRICIA A. DEUSTER, PhD, MPH
Human Performance Laboratory, Department of Military and Emergency Medicine, Uniformed Services University of the Health Sciences, 4301 Jones Bridge Road, Bethesda, MD 20814

EDWARD M. EITZEN, Jr., MD, MPH
Colonel, Medical Corps, US Army; Commander, US Army Medical Research Institute of Infectious Diseases, Fort Detrick, Frederick, MD 21702–5011

RALPH L. ERICKSON, MD, DaPH
Lieutenant Colonel, Medical Corps, US Army; Chief, Preventive Medicine Service, Landstuhl Regional Medical Center, APO AE 09180

VICKY L. FOGELMAN, DVM, MPH
Colonel, Biomedical Science, US Air Force; Academic Director, International Health Program, US Air Force Radiobiology Research Institute, 8901 Wisconsin Avenue, Bethesda, MD 20889–5603

JEFFREY M. GAMBEL, MD, MPH, MSW
Colonel, Medical Corps, US Army; Staff Physiatrist, Walter Reed Army Medical Center, Washington, DC 20307–5001

W. DAVID GOOLSBY, DVM, MPH
Lieutenant, Veterinary Corps, US Army (Ret); 1247 Shadowwood Drive, Spartanburg, SC 29301
Foreword

It has been over 60 years since George Dunham wrote the last major US textbook on military preventive medicine. Both then and now, the mission of military preventive medicine has been to preserve the fighting strength through population-based methods of disease and injury avoidance. A comparison, however, of the tables of contents of Dunham’s textbook and this one, Military Preventive Medicine: Mobilization and Deployment, illustrates that the scope of military preventive medicine has grown tremendously. This reflects changes in US warfighting doctrine, the expansion of the US military’s role in operations other than war, the emergence of new disease and injury threats, and the changing demographics of our warfighters.

US military doctrine is increasingly focused on rapid deployment of lighter units that (1) are more widely dispersed on the battle space and (2) achieve advantages through information, tactical, and strategic dominance. Future military engagements will often evolve rapidly and put a premium on conserving scarce, highly trained, human resources. Central to the conservation of human resources are the needs for knowledgeable leadership, an understanding of the lessons of past conflicts, and systematic estimates of the medical threat prior to exposure; this new volume in the Textbooks of Military Medicine series reflects these needs. In a force drawn from a finite pool of volunteers, it is critical to have balanced accession standards and to do minimal damage while realistically training recruits. The growing interest of women in military service has not only increased the pool of much-needed talent but has also necessitated that approaches to prevention of training injuries and health maintenance be reevaluated to ensure that they reflect the needs of all service members.

Unlike 50 years ago, our forces are now expected to be able to move within hours from the US to the battlefield and arrive ready to fight. Although warfare is obviously dangerous, the risk of disease and nonbattle injury on the battlefield has often been underappreciated—along with the potential of countermeasures to mitigate that risk. This morbidity is appreciated increasingly as not just physical but also psychological. In Dunham’s era, war-associated syndromes, nuclear and biological warfare, and emerging infections such as drug-resistant malaria, hepatitis C, and acquired immunodeficiency syndrome were not the threats that they are today. The requirement to conduct continuous surveillance for disease and nonbattle injury before, during, and after deployment speaks to the high investment that our military has in each service member and of their individual importance to military success.

In the post–Cold War era, the US military has been called on increasingly to assist with operations other than war including not only peacekeeping operations but also humanitarian assistance operations. In many of these operations, military preventive medicine is at the tip of the spear. Thus it is critical that all military medical personnel have an appreciation for the challenges posed by natural and manmade disasters, by large numbers of displaced persons, and for the different roles we may be called on to fill.

Military Preventive Medicine: Mobilization and Deployment reflects the evolution of preventive medicine in the military from its traditional focus on field hygiene and infectious disease control to encompassing the wide range of threats and scenarios associated with modern military service. There are many lessons to be learned from the textbook’s emphasis on history and the military relevance of the conditions covered. However, the essence of this volume, like the practice of military preventive medicine, is timeless: our nation’s greatness is reflected in our comprehensive care of those who serve. Preventive medicine of the highest quality is just recognition for their sacrifices and those of their families and communities. It is also a cornerstone to our military readiness. I hope that this textbook will help illuminate the path for those dedicated to pursuing that vision.

Lieutenant General James B. Peake
The Surgeon General
US Army

Washington, DC
September 2003
Preface

Force health protection, although often a loosely defined focus of military medical departments in the past, has in the aftermath of the Persian Gulf War received especially explicit, thorough, and vigorous emphasis within the US Department of Defense. The overall US national military strategy at the turn of the millennium is to “shape, prepare, and respond” to potential national security threats around the world. As is noted in the Department of Defense’s *Doctrine for Health Service Support in Joint Operations*, force health protection has three corresponding functions: to shape a healthy and fit force, to prevent casualties through proper preparation of personnel, and to respond to casualties when they occur. Preventive Medicine is inherently central to developing a healthy and fit force and in keeping the force healthy through mobilization and deployment—even into the postdeployment phase. This is more critical than ever in light of a shrinking medical footprint and the need to provide immediate casualty care on the modern, rapidly mobile battlefield. Even once casualties occur, Preventive Medicine has an important tertiary prevention role that must be vigorously pursued if service members are to be successfully rehabilitated and avoid having their relatively manageable physical or mental problems evolve into long-term disabilities.

Force health protection is not only beneficial to the individual but also essential to unit readiness and performance. Contemporary military operations, whether in training, on the battlefield, or in the conduct of operations other than war, place units under the threat of an ever-widening array of biological, physical, and mental stressors. The mitigation of these requires military Preventive Medicine professionals to be familiar with a broad array of disciplines and to provide cohesive leadership and sound advice up and down the chain of command. This textbook aims to provide enabling insights with respect to these scientific, administrative, and leadership challenges.

The challenges of military Preventive Medicine are becoming ever more complex but are also very old. The solutions in many cases are well documented but often forgotten. In 1827, John Macculloch wrote prophetically that

> it would seem, as if fatal, that the wisdom and experience of one generation should be forgotten by the next, that peace should extirpate the knowledge that had been gained in war.¹

In 2003, *Preventive Medicine: Mobilization and Deployment* emphasizes these often-forgotten lessons of the past and it also provides a comprehensive approach to protecting the force in the current context of the US military’s global security mission. We, as military medical professionals, must understand this approach to be well prepared for responding to this mission in a focused, competent, and compassionate manner. Our great nation and its sons and daughters who volunteer to take on its most arduous burdens have ever-rising expectations of military Preventive Medicine. At their peril, we ignore the lessons at our fingertips.

Dave Ed. Lounsbury, MD
Colonel, Medical Corps, US Army
Director, Borden Institute, and
Editor in Chief, Textbooks of Military Medicine

Washington, DC
September 2003

¹ Maculloch J. *Malaria: An essay on the production and propagation of this poison and on the nature and localities of the places by which it is produced: With an enumeration of the diseases caused by it, and to the means of preventing or diminishing them, both at home and in the naval and military service.* London, England: Longman & Co; 1827.
The current medical system to support the U.S. Army at war is a continuum from the forward line of troops through the continental United States; it serves as a primary source of trained replacements during the early stages of a major conflict. The system is designed to optimize the return to duty of the maximum number of trained combat soldiers at the lowest possible echelon. Far-forward stabilization helps to maintain the physiology of injured soldiers who are unlikely to return to duty and allows for their rapid evacuation from the battlefield without needless sacrifice of life or function.