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Catherine Wilson Cox and Janet Fraser Hale

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### **Emergency Medical Support Units to Critical Care Transport Teams in Iraq**

Sean T. Collins

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Early in the author's deployment in the United States Air Force to southern Iraq, his unit was exposed to the first of many mass casualties sent to his Expeditionary Medical Support System unit. Within minutes of the injured military members' arrival, the four-bed evaluation station was transformed into an open bay trauma room where patients were treated and supported until they could be evacuated to more definitive care. Patients were transitioned with awe-inspiring speed and professionalism to Critical Care Air Transport teams for care during aeromedical evacuation. The lessons learned from the frequency of these events are valuable to any similar transport case with critically ill and injured patients.

### **Skill Set Requirements for Nurses Deployed with an Expeditionary Medical Unit Based on Lessons Learned**

John J. Whitcomb and Kimberly J. Newell

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Based in Kuwait 3 years apart, the authors recount how nurses and corps staff, along with their physician counterparts, came together to form well-run medical facilities under adverse circumstances. Their respective hospitals became competent organizations because of specific formulas for success, along with preparation, identification of required skill sets, and making improvements based on experience. This article describes the training of medical, nursing, and corps staff, the facilities and resources required for managing casualties, and some of the more commonly encountered combat injuries and conditions.

### **The Synergy Model at Work in a Military ICU in Iraq**

Mary E. Freyling, Karen S. Kesten, and Janie Heath

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The Synergy Model for Patient Care, developed by the American Association of Critical-Care Nurses (AACN), demonstrates that positive patient outcomes are achieved when patient characteristics are matched with nurse competencies. Through the vivid realities in the daily journal of a military ICU nurse taking care of patients in Iraq, a virtual triad learning experience provided academic, clinical, and personal support. This article describes how effective nursing practice, whether providing direct patient care in the United States or in a military ICU in Iraq, must be centered around the needs and

characteristics of patients. Acute and critically ill patients in a military ICU in Iraq have unique needs and require nurses with competent skills to help promote optimal outcomes.

**Stateside Care of Marines and Sailors Injured in Iraq at the National Naval Medical Center in Bethesda, Maryland** 31  
Loretta J. Aiken, Patrice Bibeau, Barbie Cilento, and Eddie Lopez

This article has been written by four staff members from the Critical Care Department at the National Naval Medical Center in Bethesda, Maryland. They are part of a large and extremely sophisticated medical response team who cares for the injured when they return to the United States. This article covers the interdisciplinary teamwork that is vital to the care of catastrophic war injuries and shows how detailed treatment plans are formulated for each casualty. It describes the unique and profound emotional responses of the staff members who are instrumental in the recuperation of the service member. It also tells of the joy of recovery from horrific injuries, and the intense dedication of staff members to the military wounded.

**Critical Care Nurses' Experiences Caring for the Casualties of War Evacuated from the Front Line: Lessons Learned and Needs Identified** 41  
Deborah J. Kenny and Mary S. Hull

Nursing in a critical care environment is stressful, particularly when patients are young, previously healthy soldiers who have experienced multiple severe, life-threatening injuries. These injuries not only devastate the injured soldiers and their families, but also significantly impact the nurses caring for these patients. This article discusses some stressors identified by critical care nurses in two military medical treatment facilities where the most severely injured soldiers undergo definitive care, and examines the evolution of the concept of compassion fatigue, its symptoms, and methods of coping. Examples of how the nurses currently working with these young soldiers manage their own stressors are discussed and suggestions for successful coping strategies are provided.

**Pain Management in the Traumatic Amputee** 51  
Ann Kobiela Ketz

Traumatic amputees may experience a variety of acute and chronic pain issues, including phantom limb pain and residual limb pain. Research continues to determine the causes of these problems and to find the most appropriate and effective treatments for each of these phenomena. It is important for health care providers to be knowledgeable about the variety of treatments available, including medications, surgical procedures, complementary and alternative therapies, and self-treatment methods to ensure that amputees receive the best practices for individualized, effective pain management that they deserve.

**Nutrition Support of the Traumatically Injured Warfighter** 59  
Mary S. McCarthy, Janet Fabling, Robert Martindale, and Stephanie Ann Meyer

Major trauma induces metabolic alterations that contribute to the systemic immune suppression in severely injured patients and increase the risk of infection and posttraumatic organ failure. Nutrition modulation of cellular processes has evolved into a high-priority therapy, backed by substantial scientific evidence. The appropriate selection, timing, and dose of nutrients required for metabolic resuscitation must be individualized and goal directed. Ideally, the nutritional interventions for warfighters

will be developed strategically based on the extent of injuries and underlying deficiencies and will be designed to provide the nutrients necessary to balance hypermetabolic processes, heal wounds, and promote optimal recovery.

### **Memories of Three Wars: A Nurse's Story**

Loretta J. Aiken

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This is the personal story of a civilian critical care nurse who has worked for several decades with war casualties. It begins with her memories of the Vietnam era and her reflections on that war. It then describes how the National Naval Medical Center in Bethesda, Maryland, prepared for the Desert Storm War and continues through the current war in Iraq. The article provides a glimpse of a long and meaningful nursing career and expresses the joy and satisfaction of caring for the wounded warriors of today's conflict.

### **PTSD: Therapeutic Interventions Post-Katrina**

Jacqueline Rhoads, Timothy Pearman, and Susan Rick

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August 29, 2006, brought the largest, most deadly hurricane ever to strike the Gulf Coast. According to reports, the storm killed more than 2000 people and destroyed billions of dollars of property, with winds clocked at 160 to 175 mph. More than a million residents were displaced, many requiring care for chronic conditions who suddenly also needed care for acute stress symptoms. Today, many individuals still struggle to cope with major psychiatric posttraumatic stress disorders (PTSD). Using a case study approach, this article discusses PTSD, including what it is, how it is manifested, how to diagnose it, patient education, and how it can be managed with therapeutic interventions. Special circumstances related to children are briefly presented.

### **Caring for the Caregivers and Patients Left Behind: Experiences of a Volunteer Nurse During Hurricane Katrina**

Sandra L. Leiby

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As a volunteer nurse deployed to New Orleans after Hurricane Katrina, the author observed the need for honest and informative leadership, for volunteer flexibility and an "I'll-do-anything" mind-set, and for more advanced disaster training. This article describes the author's experiences and highlights how she learned those lessons. She advocates learning from the experiences of responders to recent national and international relief efforts to ensure the organizational and personal preparedness needed to deal with the complex ethical, moral, legal, and medical issues during a disaster.

### **Managing a Disaster Scene and Multiple Casualties Before Help Arrives**

Janet Fraser Hale

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As the largest group of health care professionals in the United States and a component of almost every community, nurses may be called upon to initiate the emergency response and provide initial planning for health care until local, national, or federal assistance arrives. This article will assist nurses in anticipating, preparing for, and responding to multi-casualty, high-impact events. It concludes with a discussion of triage of multi-casualties in the face of scarce resources. It includes resources for more in-depth information on prevention, preparedness and planning, and the health system's response.

<b>Directions for Disaster Nursing Education in the United States</b> Marguerite T. Littleton-Kearney and Lynn A. Slepski	<b>103</b>
Because of their diverse education, experience, and practice settings, nurses are uniquely qualified to be first receivers, care givers, and leaders in any large-scale public health emergency. Many nurses, however, continue to feel inadequately prepared to function effectively in these types of situations. Great strides have been made since 2001, but much work remains to be accomplished. This article focuses on newer approaches used to teach nurses the principles of disaster preparedness. It also addresses the need to incorporate mass casualty care and disaster management skills into undergraduate curricula, continuing nurse education, and advanced degree programs for nurses in the United States.	
<b>Research Considerations When Studying Disasters</b> Catherine Wilson Cox	<b>111</b>
Nurses play an integral role during disasters because they are called upon more than any other health care professional during disaster response efforts; consequently, nurse researchers are interested in studying the issues that impact nurses in the aftermath of a disaster. This article offers research considerations for nurse scientists when developing proposals related to disaster research and identifies resources and possible funding sources for their projects.	
<b>Military Nursing Research: Translation to Disaster Response and Day-to-Day Critical Care Nursing</b> Elizabeth J. Bridges, Joseph Schmelz, and Patricia Watts Kelley	<b>121</b>
Where to begin? How do you identify nursing care requirements for military operations, disaster, and humanitarian response, and how do you modify care under these unique conditions? This article presents a framework for identifying areas of critical care nursing that are performed on a day-to-day basis that may also be provided during a contingency operation, and discusses how that care may be changed by the austere conditions associated with a contingency response. Examples from various disasters, military operations, and military nursing research are used to illustrate the use of this framework. Examples are presented of how the results of this military nursing research inform disaster nursing and day-to-day critical care nursing practice.	
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