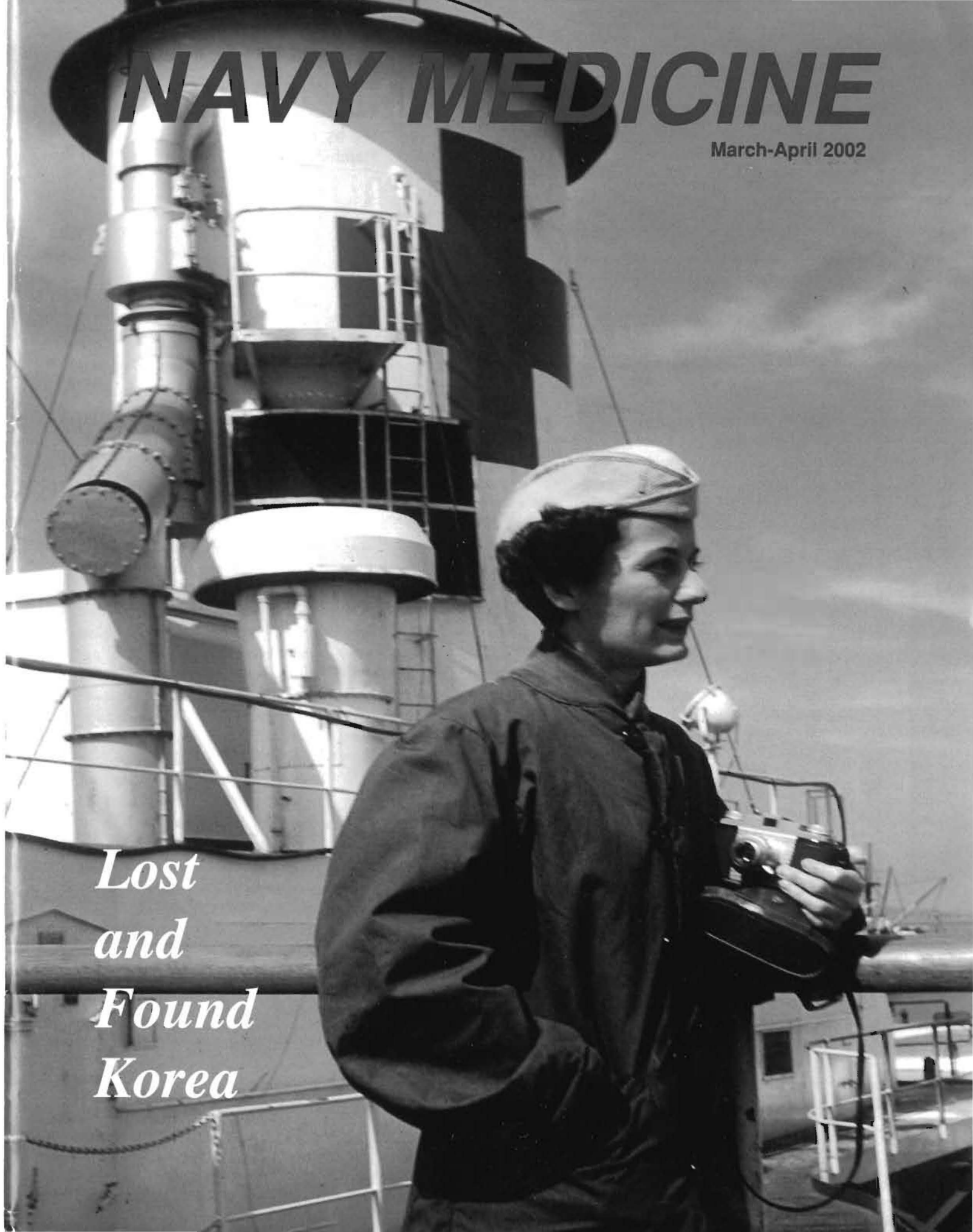


NAVY MEDICINE

March-April 2002

*Lost
and
Found
Korea*



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COVER: In March 1953, Navy nurse LTJG Virginia Brown posed beside the hospital ship *USS Haven* (AH-12), then moored at Pusan, South Korea. A photo essay appears on page 17. Photo by CDR Nancy Crosby, NC, USN (Ret.).

The Surgeon General's Navy Medicine Essay Contest

Navy medicine is a dynamic institution with a mission to promote the health of Sailors and Marines, heal them when they become sick and injured, and care for their families wherever they are. One of our strengths has always been the ability to adapt and innovate. Throughout Navy medicine's long history, we have sought new ways to accomplish our mission using old-fashioned common sense when possible and the latest technology when it became available. Often, new ideas come from within our own community. Who knows better how to do the job than those on the shop floor who are constantly honing and refining the process to get it done better and more efficiently? Now, more than ever, I find myself relying upon the sage advice and ideas of both the senior and junior members of the Navy Medical Department to accomplish our mission. Healthy debate is both good

and necessary. I not only encourage it; I actively seek it.

What are the pressing issues we face as we begin a new century and fight the war against terrorism? Force Health Protection (Readiness, Optimization, Integration), the next generation of hospital ships, the future of the fleet hospital, TRICARE. I could go on. But instead, I'd like to announce an essay contest open to everyone. Although the subject is Navy medicine, the contest is not limited to members of the Navy Medical Department. And it is open to all hands.

Essay subjects can include the above but are not limited to these subjects. Any issue related to Navy medicine—present or future—is fair game.

The essays must be 2,000 words or less (approximately 6-8 pages double spaced). All entries must be mailed; no electronic entries will be accepted.

First prize is an all expenses paid trip to the Bureau of Medicine and Surgery to receive a plaque and genu-

ine handshake from me. The winning essay will then be published in *Navy Medicine*. The second prize winner will also have his/her article published in *Navy Medicine*. Other essays of merit will appear in future issues of the magazine's FORUM section.

This contest is not a one-shot deal. I hope it will be a catalyst to stimulate and provoke thought and debate on all issues facing Navy medicine, and help us to focus on what we do best—providing the best care anywhere.

Please mail submissions to:

Bureau of Medicine and Surgery
MED-09H—Essay Contest
2300 E Street, N.W.
Washington, DC 20372-5300

All entries must be postmarked by midnight 15 June 2002. □

Good luck.
VADM Michael L. Cowan, MC, USN
Surgeon General of the Navy

Dental Triage CD for Independent Duty Corpsmen

For over 100 years the Navy's submarine force has cruised under the oceans unseen. For months at a time the crew becomes a small, self-sufficient, underwater community. Everything they need is onboard, including treatments for dental emergencies, because MEDEVACS can jeopardize multi-million dollar missions. Submariners will tell you that once they are on patrol, they will avoid surfacing at almost all costs, to medically or dentally evacuate a Sailor.

Researchers at the Naval Dental Research Institute (NDRI), Great Lakes, IL, are putting the finishing touches on a multimedia CD designed for independent duty corpsmen (IDCs) to aid in the diagnosis and treatment of common dental emergencies.

According to Dr. John Simecek, Ph.D., Senior Scientist in NDRI's Applied Clinical Sciences Department, "The CD, which can be used on any Windows-based computer with a CD ROM, provides a series of clinical questions, and, based on the input and responses, leads to a diag-

nosis. After arriving at a final diagnosis, a library of audio and video clips is available to assist the corpsman with step-by-step treatment procedures."

The software is designed to compliment the IDC's knowledge and capabilities. Suggested treatments use only materials available to the deployed IDC.

Navigating through the user-friendly software is easy. A click of a button on the first screen starts a series of multiple-choice questions, the answers become part of a decision tree, and the session ends with a diagnosis. The diagnosis screen provides descriptive details and recommended treatments. The IDC can retrieve more information on specific diagnosis and treatments by clicking on the terms listed on the diagnosis screen. The IDC can compare a clinical case he's treating to images archived in the CD's database. The CD also provides extensive reference material, including a drop-down glossary of terms and diseases.

CDR Kim Diefenderfer, Chairman of the Applied Clinical Sciences and

BUMED Specialty Leader for Preventive Dentistry, speaks very highly of the dental triage CD, "This is a treatment system for the independent duty corpsman working in an operational environment where he is the primary medical provider. While assessing the symptoms and arriving at a diagnosis, he can actually see what an abscess or fractured crown or pericoronitis looks like. For example, he can see how to mix temporary cement and how to apply it. Instructional video clips will guide him in treating the patient. Our field-testing has generated very positive feedback and we anticipate having a product ready for the fleet within the next year."

For more information, visit NDRI's website at: <http://bumed.med.navy.mil/ndri/> □

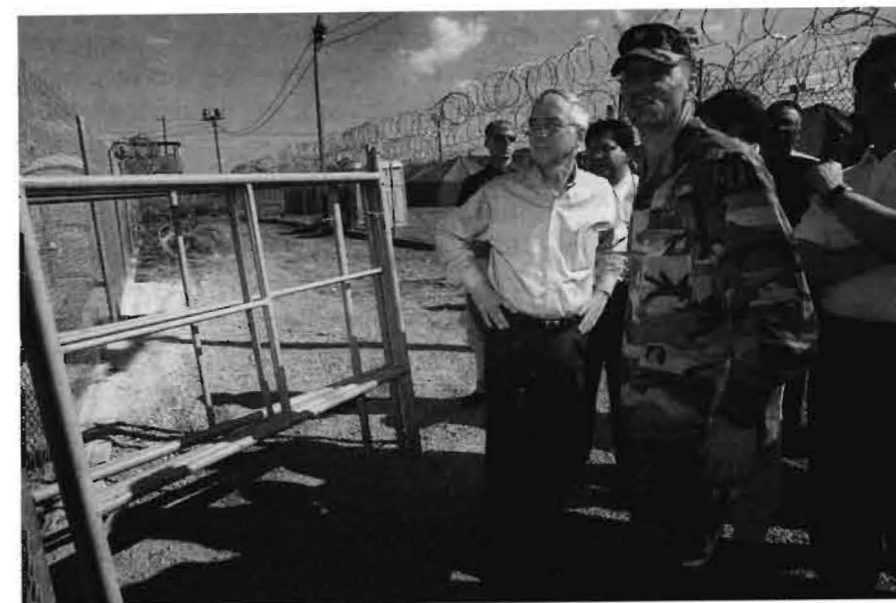
—Story by Doris M. Ryan, Medical Research and Development Division (MED-26), Bureau of Medicine and Surgery, Washington, DC.

Maintaining the Moral High Ground Providing Healthcare to Taliban and Terrorist Detainees

LT Youssef H. Aboul-Enein, MSC, USN

The war on terrorism is being fought on many fronts, from direct military action and diplomatic cooperation to the financial and public relations war. Maintaining the moral high ground in this fight is crucial. Navy medicine is contributing to the mission and also doing the dangerous and delicate job of providing healthcare to some of the most battle-hardened and fanatic elements of the Taliban and Al-Qaeda detained at the U.S. Naval Base in Guantanamo Bay, Cuba. The Joint Task Force 160 (JTF-160) Medical Team headed by CAPT Albert Shimkus, NC, has been taking care of 4,800 United States Marines, Sailors, Airmen, Soldiers, Coast Guardsmen, and family members. But as of this January, they have added 300 Taliban and Al-Qaeda detainees who have expressed an earnest desire to kill Americans before they depart.

CAPT Shimkus recently met with the staff of *Navy Medicine* magazine and gave a unique perspective on the involvement of both his naval hospi-



Secretary of the Navy, Gordon England (center), tours facilities at Camp X-Ray.

tal staff and 160 members of Fleet Hospital Camp Lejeune, NC, which set up a 36-bed Fleet Hospital near Camp X-Ray. This is no ordinary mission. It can only be compared to what our Navy Medical Department forebears did during World War II when they provided care to captured Japanese forces. Then, as now, the enemy

had a fanatical determination to die for their cause.

Beaming with a sense of overwhelming pride for every officer, chief, and Sailor under his command, Shimkus told their story. "We received the mission from Southern Command (SOUTHCOM) verbally during the Christmas leave period and

Photo by PHC Dolores L. Parlatto

began to prepare for the potential of 2,000 detainees coming from Kabul, Kandahar, and Camp Rhino in Afghanistan," he began. He first had to resort to a freeze in PCS orders to determine the specialties and key personnel who were required initially without worrying about rapid turnover. He also had to cancel Christmas leave for many members of his staff. Then, there was the site itself. Camp X-Ray, he explained, was isolated, and there was less than a week to prepare for the arrival of the detainees.

Immediately, the naval hospital put together a crisis action team under the leadership of CAPT Bob Engelhart, the executive officer. The planning team assessed the personnel, supplies, and type of care and processing provided to migrants, and contrasted them with what would be required to provide care to maximum security prisoners, a mission Navy medicine is not accustomed to.

Several decisions resulted. One was to send Naval Hospital Guantanamo Bay staff to Naval Hospital Puerto Rico for 3 days, where Commanding Officer CAPT Pat Netzer, NC, arranged for staff interviews at Centro Médico, a federal penitentiary with inpatient capability, to learn the unique nature of providing care to hostile inmates.

Collecting information from the Armed Forces Medical Intelligence Center (AFMIC), World Health Organization Bulletins, and Environmental and Preventive Medicine Unit Two, LCDR Greg Thomas, MSC, assessed that tuberculosis and malaria would be the most likely diseases brought from Afghanistan by the Al-Qaeda and Taliban. It was not only necessary to plan for Afghanistan's endemic diseases but also those of 24 countries the detainees hail from. Armed with this infor-

mation, it was now possible to plan for medical processing and treatment of detainees upon their arrival.

Giving a Physical Under Extreme Guard

When the detainees arrived at Guantanamo Bay, they were handcuffed and blindfolded, and wore earplugs. They were then led to security processing. Following security, a three-person team stood by, each consisting of a physician, an independent duty corpsman, and general duty corpsmen. These teams, constantly accompanied by two Army MPs, initially evaluated and treated the detainees. "It was vital that we identify and treat the malaria cases immediately," said Shimkus. He further explained that malaria had been eradicated from Cuba 40 years before, and careful planning was required to ensure that it was not reintroduced to the island.

Every detainee received a detailed physical, which included a chest x-ray to rule out tuberculosis. Each examination usually took double or triple the time due to the language barrier and required translations. Personnel also had to be very careful not to leave scalpels, pens, or any other instruments about that could become potential weapons. It was Navy medicine's mandate to provide every detainee with the same level of care that our own servicemen and women receive.

Several of the detainees had sustained war injuries, and many of our physicians are gaining valuable experience treating orthopedic cases and gunshot wounds acquired in combat. One detainee with a gunshot wound to the left hip required surgery. Three Navy orthopedic surgeons performed the 2-hour operation. The procedure, known as incision, drainage, and re-

duction, repaired damage to tibia and fibula.

The Fleet Hospital covers an acre and a half and the facility is being redesigned to meet the mission of caring for hostile detainees. The 36-bed Fleet Hospital has a pharmacy, a lab, an x-ray unit, and a second wing, which is a casualty and receiving area (Detainee Acute Care Unit) and operating rooms. Over 160 Fleet Hospital Camp Lejeune personnel and 17 Seabees took 3 days to erect the Fleet Hospital and install the equipment.

The International Committee for the Red Cross (ICRC) Trains and Observes

A physician from the ICRC arrived shortly after the first detainees. Members of Naval Hospital Guantanamo requested that he provide guidance as to what would be expected. The physician recounted his experiences monitoring several conflicts and began the process of explaining the role the International Committee of the Red Cross in the case of the Al-Qaeda and Taliban detainees. "He is now a fully integrated member and advisor of our staff," said Shimkus. What he also wanted to point out was that the USNH Guantanamo Bay Executive Steering Committee and that of Fleet Hospital Camp Lejeune have had a seamless integration, with the CO, XO, and DFA attending regular Guantanamo Bay staff meetings. In addition, a CAT-scan requested for orthopedic injuries was delivered courtesy of the U.S. Army Medical Logistics Command at Fort Hood. "All specialized medical care must be brought to the detainees, and we are working to bring a prosthesis specialist to assist with several amputees who lost limbs in Afghanistan," Shimkus pointed out. Transporting ill detainees requires an ambulance with



Photo by PH1 Shane T. McCoy

Navy LT Abuhena Saif Ul Islam, a Muslim chaplain, speaks with a congressional delegation touring Camp X-Ray. Islam leads prayers five times a day for Al Qaeda and Taliban detainees.

a corpsman and two Marine guards per detainee. The ambulance is followed by two HUMMVs, front and back, that are armed and ready to deal with any hostile act."

A few detainees have made threats in their native language but the majority are relatively cooperative, realizing that this is the best medical care they have received in their lives. One detainee had an eye removed; it was dysfunctional as the result of a cricket (a form of English baseball) injury as a teen. Although the detainees are not thankful for the care and treatment received, this one patient hoped to have tea with the Navy ophthalmologist who treated his childhood injury. In the Afghan culture, taking tea or (*chay*) is a sign of hospitality.

It should be pointed out that since January 17 detainees from Afghanistan have become inpatients at the Fleet Hospital. And each has been provided a Koran (Muslim book of divine revelation). A Navy Muslim chaplain calls on them daily and par-

ticularly on Friday, the Muslim Sabbath.

On 8 February, the Al-Jazeera Television Network toured the medical facilities and camp, and there has followed a string of media and dignitaries including Secretary of Defense Donald Rumsfeld, Joint Chiefs of Staff Chairman GEN Richard B. Myers, and several congressional visitors.

There has also been a SPRINT Team on-hand to assist with the stresses the staff and security personnel feel in dealing with these highly dangerous detainees. CAPT Shimkus explained that his main challenge has been to get some off-duty time for his people, and making sure that his leadership looks out for fatigue and one another. "We cannot be tired in an environment where a patient might exhibit hostility toward his caregivers," remarked Shimkus. "We are also sensitizing our staff regarding forming attachments with the detainees so as not to let their guard down. Many of the detainees arrived

malnourished and gained 6 or 7 pounds," said Shimkus, "and this included ensuring that the meals are *Halal* (according to Islamic dietary standards), similar to kosher meals for those of the Jewish faith." He has another concern. As each day passes, the detainees become healthier, more alert, and stronger, and thus may make good their promise of carrying out threats of violence against security or medical staff. After 3 or 4 months it is expected that another Fleet Hospital will replace the Camp Lejeune personnel.

CAPT Shimkus is the right skipper, at the right place, at the right time. His classmate at the Naval War College senior's course is currently the Naval Air Station commander, and Shimkus taught a course at the war college entitled, "Unconventional Warfare for Uncertain Times." Little did he know that upon graduation and assuming his first command at USNH Guantanamo Bay, that he would be putting elements of his course into actual practice and relying on his line contacts formed at the Naval War College. He spoke with great admiration for corpsmen, mess specialists, and the many other ratings that built a medical facility in less than 2 weeks.

Because of the 11 September attacks, the men and women of Navy medicine have been energized and charged to carry out this unique and historic mission. They heeded the Commander-in-Chief's call when he articulated our new motto, coined by a hero of the flight that crashed in a rural Pennsylvania field. "LET'S ROLL!" □

LT Aboul-Enein is studying at the Joint Military Intelligence College in Washington, DC. He is a designated Middle East Foreign Area Officer.

Navy Medicine Steams Ahead on Homeland Security

CDR Mary W. Chaffee, NC, USN
 CDR Reggie McNeil, MSC, USN
 CDR Harry Taylor, MC, USN
 LT Katrina Chenevert, MSC, USNR

“Homeland security will forevermore be a priority for our nation.”
David M. Walker, Comptroller General of the United States
 7 November 2001

Navy medicine's motto, “Steaming to Assist” came alive as news of the 11 September terrorist attacks reached the desk of Navy Surgeon General, VADM Michael L. Cowan. Navy chaplain, CAPT Jane Vieira, Special Assistant for Pastoral Care at BUMED, recalled his words when informed of the attack during a meeting with his senior staff. “You all have work to do. Go...prepare Navy medicine to respond.” VADM Cowan later remarked, “The men and women of Navy medicine were among the first to respond, providing aid to the injured at the Pentagon and comfort and care for the thousands of rescue workers who worked around the clock in the desperate race to find survivors beneath the rubble that was the World Trade Center.”(1)

The remarkable and immediate response of Navy Medical Department

personnel was powerful testimony to the expertise and level of preparedness in the organization. However, this would only be the beginning of Navy medicine's efforts. In the days and weeks to follow, the Navy Surgeon General demonstrated his commitment to our mission in a changed environment.

Establishment of the Homeland Defense Working Group

By the end of September 2001 Dr. Cowan had established a multi-disciplinary working group to define the gaps between Navy medicine's current capabilities and those necessary to support homeland security. He charged the workgroup with the task of beginning to identify the policies, procedures, resources, and training necessary to close the gaps and to propose an organizational infrastructure

to support ongoing homeland security activities within Navy medicine.

MTF preparedness assessment

One of the group's first actions was to conduct an assessment of Navy military treatment facilities' (MTFs) preparedness to respond to a chemical, biological, radiological, nuclear or high explosives (CBRNE) event. Data was collected and analyzed from over 75 MTFs. As a result of this snapshot of Navy medicine, two areas were identified for immediate attention: education in the diagnosis and management of chemical and biological casualties, and medical surveillance for potential bioterrorism.

Training Needs

In November 2001, the working group assembled an expert panel to define the training needs of Navy

Medical Department personnel, to evaluate available training resources, and to propose immediate steps to close the gap in preparedness. Among other things, this panel recommended that all privileged providers and independent duty corpsmen (IDCs) receive familiarization training in presumptive diagnosis, isolation measures, and immediate care of likely CBRNE patients. The experts also asserted that primary care and emergency care providers should receive advanced didactic and clinical skills training in definitive initial care of CBRNE patients including diagnosis, isolation, and initial management.

The expert panel evaluated military and civilian CBRNE training options and determined that the Army's 7-day course, *Medical Management of Chemical and Biological Casualties*, represented the gold standard in biological and chemical casualty training for clinicians. Another excellent resource identified by the panel was the Navy Environmental Health Command (NEHC) 3-day exportable training. A 12-hour satellite broadcast titled *Biological and Chemical Warfare and Terrorism—Medical Issues and Response*, sponsored by the Army in late November 2001, also met the experts' training requirements. Because the satellite broadcast was available as a series of six 2-hour videos, via streaming video over the Internet and on CD-ROM, completion of this training posed less imposition on other MTF activities and became the recommended training option for all Navy primary care and emergency care clinicians. The experts also recommended that the Naval School of Health Sciences' (NSHS) four CD-ROM, self-paced interactive educational program *Differentiation Among Chemical, Biological and Radiological Casualties*

be required familiarization training for all privileged providers and IDCs assigned to Navy MTFs. Implementation of these training recommendations was one of the Navy Medicine Office of Homeland Security's first actions.

The working group coordinated Navy medicine's efforts in response to the anthrax threat, identified and disseminated a rapidly deployable syndromic surveillance system, and proposed the infrastructure that formed the framework for Navy Medicine's Office of Homeland Security. In just 2 months, this group of dedicated professionals provided a bridge between the fear and uncertainty surrounding the events of 11 September and the clearly articulated vision that would be crafted by this new office.

Establishment of the Navy Medicine Office of Homeland Security (OHLS).

On 16 November 2001, VADM Cowan established a permanent organization to focus homeland security efforts. To lead the efforts, he named RADM Alberto Diaz, Jr., as the Special Assistant for Homeland Security. The Office, currently staffed with seven personnel and located at BUMED, has rapidly defined its role, established goals, and started work on a number of initiatives. Its mission is aligned with DOD doctrine and the White House Office of Homeland Security goals and is focused on preparing Navy medicine to prevent and respond to any threat or attack.

The Navy Medicine Office of Homeland Security's Mission

The mission is to coordinate a comprehensive organizational strategy to prepare for, prevent, protect against, respond to, and recover from

threats or attacks that involve the Navy Medical Department.

Force health protection includes protection of treatment facilities, personnel, and infrastructure against acts of terrorism. Navy medicine has many well-established and finely tuned efforts well underway, including physical security, disaster preparedness plans, biological event surveillance, mutual support agreements, and others. When the environment changed on 11 September, it became vital for the organization to ensure that all these efforts—as well as new initiatives—were even more carefully coordinated.

The Navy Medicine OHLS will focus on two areas:

- Infrastructure vulnerability—minimizing vulnerability of people, assets, and facilities.
- Consequence management—ensuring effective immediate disaster response and providing military support to civil authorities.

To achieve its mission, the Navy Medicine Office of Homeland Security will:

- Assess the current homeland security status of the organization.
- Identify vulnerabilities.
- Identify methods to reduce or remove vulnerabilities.
- Ensure personnel are fully trained and competent to fulfill their role in CBRNE event response.
- Ensure facilities are fully prepared to respond to CBRNE events.
- Attain adequate resources to support remediation of vulnerabilities.
- Develop liaison relationships with all agencies involved in preparedness and civil response.
- Serve as the clearinghouse for homeland security information.

One of the first initiatives being introduced in an effort to safeguard people and facilities with a system-

atic assessment of all Navy medicine facilities known as an Institutional Vulnerability Assessment (IVA). The IVA process includes a survey of military treatment facility (MTF) disaster plans, training, communications, physical facilities, security, and other areas. Focused disaster and preparedness education is provided to command staff, and the command disaster plans are tested in a table-top exercise in which local fire, rescue, law enforcement, and public health officials are invited to participate.

At the invitation of CAPT John Shore, MSC, commanding officer of Naval Medical Clinic Annapolis, the first medical IVA was conducted there in January 2002. The OHLS team worked in partnership with the clinic staff to scrutinize disaster plans, to identify strengths and weaknesses, and to exercise command disaster plans. Because of the exhaustive preparation by Disaster Preparedness Officer, LCDR Carolyn Weisz, and the efforts of CAPT Shore's staff, the pilot IVA proved extremely valuable.

The work of the Navy Medicine OHLS will be neither simple nor short-lived. However, that work reflects Navy medicine's flexibility and the vision of its leadership to ensure that the organization evolves along with the environment. Deputy Surgeon General RDML Donald C. Arthur, MC, has called the OHLS a "critical organizational change." RDML Arthur adds, "I have great confidence the work of Admiral Diaz and his team will ensure Navy medicine is better protected and best prepared to respond to events in the future."

References

1. Surgeon General: Navy Medicine Has Never Been Stronger. *Navy & Marine Corps Medical News Special Issue*, Feb. 1, 2002.

Website

Navy Medicine Office of Homeland Security Website
<http://bumed.med.navy.mil/ohls>

Glossary of Homeland Security

Homeland Defense (HLD) — The protection of U.S. territory, domestic population, and critical infrastructure against military attacks emanating from outside the United States.

Homeland Security (HLS) — The Prevention, preemption, and deterrence of, and defense against aggression targeted at U.S. territory, sovereignty, domestic population, and infrastructure as well as the management of the consequences of such aggression and other domestic emergencies. It will involve local, state, and federal organizations. DOD HLS roles include Homeland Defense (HLD) And Civil Support (CS).

Civil Support (CS) — DOD support to U.S. civil authorities for natural and manmade domestic emergencies, civil disturbances, and designated law enforcement efforts.

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Feature

Joint Medical Executive Skills Development Program (JMESDP) Congress and You

CDR E.C. Ehresmann, MSC, USN
HM1(FMF) C. Davis, USN

There is an old Chinese saying that a journey of a thousand miles begins with a single step. FY92 dawned with sweeping changes, in that the Defense Authorization Act required all officers who fill the position of commanding officer at any military treatment facility (MTF) to demonstrate professional administrative skills. In a time of increased emphasis on reducing the nation's budget deficit, controlling the costs of national medical programs, and changing our national military strategy, the Military Health System (MHS) and the JMESDP are part of this journey of change. Like every other facet of the medical community, military medicine has had to respond to the escalating demand for health care reform. The Congress in the FY96 Defense Authorization Act expanded this requirement to include TRICARE Lead Agents. It was not until the FY01 National Defense Authorization Act, which expanded this requirement to include MTF commanding officers (COs), executive officers (XOs), managed care coordi-

nators, TRICARE lead agents, and senior lead agent staff.

It has been apparent for the past several years, that members of Congress want to ensure that senior military health care managers and executives possess the requisite professional administrative knowledge and skill to efficiently and effectively manage DOD's health care system. Since Congress influences and has some level of control over military health care by way of the annual authorization and appropriation hearing cycles, complaints are directed to political leaders for corrective action.

Congress funded a 4-year joint-service "Executive Skills" development project, 1994-1998, with the Army designated as the Executive Agent. Forty administrative skill sets required of commanders were identified using modified Delphi and structured interview techniques. During that time, current and former MTF commanders participated in these deliberations, and the competency set was validated by an extensive survey of incumbent commanders.

To this end, the Virtual Military Health Institute (VMHI) was authorized in 1998 and began to implement the Executive Skills project. Everyone from the seaman recruit to the Chief of Naval Operations has some form of training, be it advancement or leadership training. Senior officers in executive positions are no different. They attend the basic, intermediate, and advanced courses for leadership. Senior executives in the Navy Medical Department are, in many cases, equivalent to a civilian Chief Executive Officer (CEO) or Chief Operating Officer (COO). Often preparation for the CO/XO job has not been systematic, and there may be gaps between the knowledge and skills the new CO/XO possesses and the behaviors required by the job. The larger the gap, the more likely major errors may be committed.

Our senior executives' failure is not, in most cases, due to the lack of knowledge and skills in their field of specialty. They fail because they have not been properly prepared for the unique requirements of the job that

can become their Achilles heel. The Executive Skills project was undertaken in the 1990s because the trial and error, sink or swim procedures were not working. The best persons were placed in command positions only to find they lacked some crucial skills for successful performance at the executive level. Mistakes and errors made at the top level tend to be costly, serious, and in the medical world, potentially life threatening.

As trained naval personnel, we are instructed on important elements of leadership, education, and training. As one moves up into critical management positions, this training is further defined into specific categories which are tailored to those senior executives who will one day manage a military treatment or managed care facility, or a position as a TRICARE lead agent. Since 1996, the military medical departments have been focusing their efforts on assessing the executive skill needs of their leaders, developing training programs, and offering courses to satisfy the jointly-developed core curriculum.

The first 3 years for Navy medicine were considered road shows, provided by the Naval Postgraduate School. This training was provided at various locations throughout the United States and was geared at providing training in order to attain a few competencies for each 2-week period. Since 1995, when a task force was established to implement and design a formal Executive Management Education Program, Navy medicine designed and developed a relational database system to track/gather information on its officers. The database was born in May 2000, and was developed for the purpose of data processing and analysis of the educational, professional, and positional achievements of senior Navy Medical Department personnel. During the past 16 months, the database has grown from a basic excel workbook to a fully functional

web based data gathering instrument used to provide key personnel at the Bureau of Medicine and Surgery, as well as the Bureau of Naval Personnel, critical information on respective officers being considered for the position of CO, XO, or TRICARE lead agent or any of the defined positions as stated by the FY01 National Defense Authorization Act.

A year ago the individual member would have completed an excel worksheet and would have had to check each block for the respective position, experience, educational, or professional affiliation that the member had attained, and sent this information via an MS Outlook email to JMESDP. Now, all the member has to do is go to the website for JMESDP which is: <http://nshs.med.navy.mil/eme2/home.asp> and begin filling out the necessary information in the particular pull down menus of the NSHS database. JMESDP is not only geared for senior executive personnel. It is highly suggested that if you are interested in one day holding any of the defined positions (noted in the FY01 NDAA), that you go to the web page and fill in your information. By doing this early in your career, it will assist many in determining the particular educational needs of the Navy Medical Department officer personnel as well as a check off sheet for you as a possible career path that you may wish to take in the future.

With sweeping changes in technology, what is the future of the database? In the near future the database will go from being an access used database to a much larger platform in Oracle. Because of the Navy program's success, the other services are following suit and using this database as a benchmark for possible implementation of this system into the Defense Medical Human Resource System II (DMHRS). DOD and the services are committed to the continuous quality improvement of the

JMESDP. It is impossible to get every officer through the complete executive skills curriculum in the short term. However, the emphasis that has been given to the program (FY01 NDAA) has increased the awareness of departmental members that this preparation is an essential element of their career progression and key to their success. Navy medicine's plan and commitment to the JMESDP is to deliver the required qualifications at the right time as officers progress toward command selection. The pace of change for the Military Health System is swift and the path ahead is not without risk, but there is no question that the medical community can excel in this environment if we better prepare our executives as early as possible in their careers. Questions concerning this article should be addressed to Navy medicine JMESDP points of contact: CDR Ehresmann at DSN 295-0203 Commercial (301) 295-0203, or HM1(FMF) Christian Davis at DSN 295-2146 or Commercial (301) 295-2146.

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Feature

Widow's Island The Forgotten Naval Hospital

Widow's Island? "Where? Why?" These were just a few questions I had as I read through the file in the BUMED archives one evening. What I found gave me little contentment. I learned that for 18 years the Navy had a hospital nestled off the coast of Maine in Penobscot Bay between North Haven and Vinalhaven islands. But that was the extent of the information. The very thin file folder left me hanging. What did Widow's Island look like? Why was a naval hospital built there? What other mysteries did it hold? The following weeks provided me an opportunity to visit this eerily named 12-acre plot in search of answers.

After exhausting the 19th century Navy Surgeon General's Annual Reports detailing construction and costs of former naval hospitals, I decided to reach out to those on the scene who could provide me with leads and, even better, with answers. I contacted historians, librarians, former newspaper editors, retired lighthouse keepers, and fishermen and began assembling clues like puzzle pieces. Altogether, their words began to sketch a faint picture. Surely as no man is an island, no island is without a story.

In its 200-year history the so-called "Widow's Island" has drifted along eluding everything but peculiarity. Originally named for a local, long forgotten, farmer's widow who inherited the island, it has served as a bird sanctuary, a summer retreat for the "convalescent insane," a schoolhouse for children of local lighthouse keepers, a summer home under private ownership (which it remains today) and, of course, a naval hospital for some 18 years.(1) The Navy's hold over this speck of property actually began in 1884 when the federal government obtained it from the U.S. Lighthouse Board as a possible location for a quarantine station for those affected by yellow fever and smallpox. In the 1880s there existed no "safe" place to treat infected crewmen without risking an epidemic. Quarantine stations at Naval Hospitals Portsmouth, NH, and Brooklyn, NY, were either under fire by local populations for being potentially dangerous or were deemed too old and outdated to care for victims.(2)

Preliminary research enabled me to conjure up a place that seemed the inspiration for many of Stephen King's grimmest locales. But despite

the enormous help of my new historian acquaintances from Vinalhaven, a local island near Widow's, there was little photographic evidence. It was time to visit this forgotten Navy relic.

First stop was Rockland, ME, on beautiful Penobscot Bay, the closest town on the mainland to Widow's (roughly 12 miles). On one crisp October morning I strolled to the ferry station where I caught the *Captain Neil Burgess* to North Haven Island, roughly 1 mile from Widow's. My friend from the Vinalhaven Historical Society had instructed me to go to Brown's Boat Company and ask for "Foy." He would be able to take me out to the island. It seemed simple enough. I saw Brown's Boat Company a hundred feet from the ferry landing. Finding Foy might not be so easy. I approached a man hauling some engine parts and asked if he knew where I might find Foy. He answered inquisitively, "Foy? Why would ya be wantin' Foy now?"

"Uh oh," I thought, "What if I asked for the wrong Foy? Or what if I was looking for "Foy" Capone, head of the Mid-Maine Cosa Nostra!"

I immediately explained that I was but a historian wishing to take pic-



Present day view of Widow's Island.

Photo by the author

tures of Widow's Island for the Navy's historical archives and not an agent for the FBI or, worse, the IRS. He interrupted me with a nod and stuck out his hand, explaining that he was Foy and would be happy to have someone take me to Widow's Island.

While my skiff was being readied, Foy and his boat yard associates regaled me with stories of Widow's, of the bird sanctuary that had become a hunting ground, the "nuthouse" that existed on the island for a number of years, and even a few tales of a former owner of the island who was said to have gone crazy. Now full with the jitters of anticipation, I boarded the flat-bottom outboard skiff, and off we went.

Immediately it became obvious why Widow's Island was chosen as a quarantine station in the first place. Remoteness is its prime feature. This seclusion undoubtedly served as a hindrance to ship captains. In the 19th century the closest Navy base was Portsmouth, NH, at least 4 hours journey by boat to Widow's. If your crew was suffering from yellow fever this

would, undoubtedly, be a long trip. A mile's journey aboard an open skiff with two healthy people traveling over the spunky chop proved long enough despite the beauty of the early autumn day.

Appearing out of nowhere, I saw an island I knew to be my destination. It was for a moment my long-sought "Xanadu of Penobscot Bay," a tree-covered mound I only recognized from sheer intuitive zeal. After a 10-minute journey we were there.

When Surgeon General Francis M. Gunnell (1884-1888) finally agreed to build a hospital there, Widow's was little more than a treeless plot open to the elements. It is little wonder why the "Widow" never moved there! In 1884 Gunnell inspected the property and requested \$5,000 dollars from Congress to construct a small pavilion hospital for temporary use, to build a wharf, and to dig a well to supply fresh water. The following year he sent a Navy physician from Naval Hospital Portsmouth, A.C. Heffenger, to oversee the project of building a one-story temporary facility to ac-

commodate 20 patients, and a 60-foot well to provide fresh water to the entire island.

By June 1885 the temporary facility was finished, complete with furnishings. Doctors from Naval Hospital Portsmouth were ready to report and even a watchman who would get \$2 a day, including Sundays year-round, began his "shift." The only thing missing were patients.

To rectify this, a larger hospital/sanitarium was planned and built to accommodate 20 patients in a 94-foot by 25-foot main ward. Workmen laid out walking paths and planted spruce, fir, and other evergreen trees on the grounds of the new facility. The temporary building constructed earlier was moved to a position below the hospital terrace for use as barracks for men of infected vessels who did not require treatment.

By 1888 all was complete and the new facility was ready to receive some 50 patients in the main ward. Only 11 patients were admitted to naval installations with yellow fever from forces afloat that year; of these

not one came to Widow's, a trend that continued through the 1890s and into the new century when the facility had become obsolete.⁽³⁾

Alighting dry-shod onto the rocky beach, I scanned a forest of evergreens, some dating back to the short Navy habitation. These trees shroud the land like hands covering a face suffering from chagrin. But was there a history of shame on the island? There was absolutely no evidence of the hospital—not a brick, not even a broken shard of glass. There was nothing but trees and an old cabin-house.

In 1894 Surgeon General James Tryon (1893-1897) took the helm and decided to disestablish the hospital and get rid of the Island altogether. Naval Hospitals Portsmouth, NH, and New York were deemed more "adequate" for the disinfection of yellow fever victims despite some public outcry.⁽⁴⁾ On 2 March 1903, an Act of Congress finally gave the Navy authority to cede the island back to the State of Maine. The Maine legislature accepted the offer and formal control passed to Maine on 1 January 1904, ending the unproductive life of Naval Hospital Widow's Island. According to the Surgeon General's Annual Reports from this period, no patients were ever admitted.⁽⁵⁾

After photographing what I could, I ended up back on North Haven with some time to kill before taking the ferry back to Rockland. I walked around town, sadly pondering the fate of the forgotten hospital. Suddenly, I was startled into the present by a man installing an American flag on his front porch. I had not realized that, with my camera around my neck, I probably looked like a suspicious out-of-towner. "Fine weatha we're havin'" he shouted in his thick down east accent "Now what would you be



Postcard of Widow's Island circa 1905. At this time the island was informally known as Chase Island.

Courtesy of Vinalhaven Historical Society

doin' round he-yah?" As I stammered my reason for existing, he descended from his porch and ushered me over to a large lobster trap lying in the front yard. "Got some bricks he-yah from the old Naval Hospital. They tore the place down in the thuties as part of a WPA project. You are welcome to have 'em." As he lifted the trap, three bricks appeared. Funny, how elusive history can be. Sure there was no longer a hospital on Widow's Island. But to my surprise, after all these years, the hospital was still out there, not in history's proverbial "dustbin," but underneath a lobster trap.

Postscript

In 1905 the Naval Hospital became a summer retreat for the "convalescent insane" founded by a man name Chase. The island was for a time known as Chase's Island or Chase Island. In the 1930s the building was razed as part of a Works Progress Administration (WPA) project.

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End of Life Care A Gift for Our Patients

LCDR Daniel P. McCartan, NC, USNR

Many articles and papers have been published dealing with operational issues within the Navy Medical Department. New and improved equipment is being developed at a rapid rate, as well as techniques that will keep our patients alive, and healthy. There are, however, some patients that will not benefit from any of this. Some of these techniques or interventions could even be detrimental.

There is a great need in our country to address the concepts of palliative care in all arenas of health care, including our own naval hospitals. Often our good intentions, such as suctioning the patient with copious secretions, could better be managed with something as simple as a few drops of atropine ophthalmic solution given sublingually or a topical scopolamine patch.

While on my most recent annual training to Naval Medical Center Portsmouth, I spent 2 weeks on the Specialty Chemotherapy Unit with CDR Raelene Hoogendorn, NC, and her incredibly caring and compassionate staff. During that time, I had the opportunity to share with them some of my experience as a hospice nurse and graduate student in Community

Health Nursing in the civilian world. We were able to put some of that experience into action, enabling a retired flag officer to exit this existence and go to the next in a peaceful, dignified way.

This is in contrast to what generally happens all too often in the real world where the current medical system lacks the training and perspective to offer patients a peaceful, comfortable death.(1)

I would like to share some of the thoughts I shared with them. As our veterans become older, and as we try and shift services to primary care providers, we all need to take an extra look at how we can still care, even when we cannot cure. As the concept of palliative care has taken hold over the last decade, there have been many studies conducted on the quality of life. One relatively recent one focused on the care given to seriously ill hospitalized patients and found that many patients died experiencing moderate to severe pain.(2) While pain management is a major, if not *the* major, focus of palliative care, I would like to address the special care given at the end of life.

When a person begins the last stages of the dying process, two dif-

ferent dynamics, which are closely related and interdependent upon each other, are at work. On the physical level, the body begins its last process-shutting down. This process ends when all physical systems cease functioning. Usually, this is an orderly and non-dramatic, progressive series of physical changes, and not a medical emergency requiring invasive interventions. These physical changes are the normal, natural way in which the body prepares itself to stop, and the most appropriate kinds of responses are geared to providing comfort to the patient.

The other dynamic of the dying process centers on the emotional-spiritual-psychological level. The dying person's "spirit" begins the final process of release from the body it occupies and the immediate environment. This release also follows its own priorities, which may include the resolution of unfinished practical matters, and receiving permission from his or her family members to "let go." These "events" are the normal, natural preparations that the spirit makes to move from this existence into the next. The most appropriate kinds of responses to the emotional-spiritual-psychological changes are

those that support and encourage this release and transition.

When a person's body is ready to stop, but the individual feels unresolved or unreconciled about an important issue or a significant relationship, he or she may tend to linger. Even though the person may be very uncomfortable or debilitated, they may still "stay" in order to finish their business. On the other hand, when the person is emotionally-spiritually-psychologically resolved and ready to release, but their body has not completed its final physical process, they will continue to live until the physical shutdown has been completed.

The experience that we refer to as "death" occurs when the body completes the natural process of shutting down, and the spirit completes the natural process of reconciling. These processes need to occur in a way that is appropriate and unique to the patient's values, beliefs, and lifestyle.

The following is a list of some of the physical and emotional-spiritual-psychological signs and symptoms of impending death. It is designed to help in your interactions with patients and families. All these signs and symptoms will not occur in every person, nor will they occur in any particular sequence. The list represents the experiences of many nurses, social workers, pastoral care providers, physicians, and family members from many areas. It is by no means complete, but sharing these experiences will, hopefully, be of some benefit.

Physical Signs and Symptoms

Coolness - the extremities become cool to touch and begin to change color. The blood is being shunted to the center of the body. Keep the person warm with a blanket.

Sleeping - a person may sleep 20 or more hours a day and may appear to be in a coma-like state, seeming to be unresponsive or uncommunicative. This is due to changes in the body's metabolism. Sit with the person, hold their hand, speak normally as if you were carrying on a regular conversation, (you don't have to yell). Hearing is the last sense to go so never speak about the patient in their presence; rather speak to the patient.

Disorientation - the patient may be confused as to person, place, time, and even to the identity of their loved ones. This is also due to changes in metabolism. Identify yourself by name, speak in a clear, soft, and truthful manner, and remember to explain the reason for your actions (i.e. administration of medication to relieve pain).

Incontinence - can be bladder and/or bowel. Good skin care is one of the key areas to concentrate on at the end of the disease process. Use of disposable pads or diapers, monitoring for skin breakdown, and liberal application of lotion are all points to focus on.

Congestion - increased oral secretions can present with gurgling sounds that some people call the "death rattle." Suctioning usually only increases the secretions and causes great discomfort to the patient. Position the patient on their side, gently clean the mouth with a moist cloth, and consider using medications to help absorb the secretions. An example of this is atropine 1 percent ophthalmic solution, 2 to 4 drops given sublingually every 2 to 4 hours as needed, or the application of a scopolamine transdermal patch.

Restlessness - restless and repetitive motions, like pulling at their bed

linens often occur and are due to decreased circulation of oxygen to the brain, as well as metabolic changes. Do not try to restrain the patient. Speak in a soothing manner, play soft music, read to the person from their favorite author, or lightly massage their forehead.

Decreased intake - food and fluid intake decreases, then will cease. The body naturally conserves energy. Do not try to force food or drink. Use ice chips or pieces of a Popsicle to moisten the mucous membranes, provided the patient can still swallow. If not, use a glycerin swab or oral swab soaked in cold water. A cool cloth could also be placed on the patient's head.

Decreased output - urine volume decreases, the color changes from tea to cola-colored, and the smell becomes very foul. This is due to the decrease in circulation to the kidneys and renal failure.

Breathing pattern changes - irregular breathing as in Cheyne-Stokes respirations. A rapid, shallow, panting pattern, or episodes of apnea are all possible. Hold the person's hand and speak softly. Although our first impulse is to use oxygen, this rarely helps. Elevate the patient's head, open a window, turn on a fan, or turn the patient on his or her side to help ease the dyspnea. It may also be beneficial to use a low dose (i.e. 5mg) of morphine elixir (20mg/1cc concentration) given sublingually or pouched between the cheek and gum every 2-3 hours as needed.

Emotional-Spiritual-Psychological Signs and Symptoms

Withdrawal - the patient may seem withdrawn, unresponsive, or in a coma-like state, indicating prepara-

tion for release, or the beginning stage of "letting go." As hearing remains until the very end, speak normally, identify yourself, hold their hand, tell the family to say whatever they need to say, or whatever it is the patient needs to hear in order for them to let go. Often, patients will need the reassurance and affirmation of their respective faith in order to "let go." It may also be very appropriate at this point to ask the patient and/or family if they would like to have a chaplain or pastoral care present.

Vision-like experiences - the patient may speak to, or claim to have spoken with, persons who are already deceased. They may also claim to have been to or to have seen places that are not accessible to them. They are not hallucinating, but are beginning the process for detaching from this existence. Do not try to explain, correct, contradict, or belittle them for these "visions," but rather allow them to describe what they saw or relate their conversations to you. These are normal occurrences. However, if they are frightening to the patient make sure you let them know they are normal.

Restlessness - performing repetitive tasks may indicate the need to finish something or to resolve some issue. The need is upsetting the patient and preventing him or her from letting go. Help the patient to recall a favorite place or a favorite experience, play some comforting music, read a favorite book to them, or tell the patient and their family that it is okay to let go, or to "go to the light."

Decreased socialization - the person may want to be with very few, or even just one person. This is a sign they are ready to let go and an affirmation of those who are most impor-

tant to them and most needed to help them make their last journey. If you are not part of that inner circle at that point, don't be upset about being left out; you have already fulfilled your role and it's time to say goodbye.

Unusual communication - the person may make an unusual or out-of-context statement, gesture, or request. This indicates the person is ready to say goodbye and is testing you to see if you are ready to let them go. Accept this moment as a special gift when it is offered. Say what you need to say, give the person one last hug or kiss, or just cry with them.

Giving permission - allowing a loved one or patient to let go without making them feel guilty for leaving, or trying to keep them with you to meet your needs, can be very difficult. A person who is dying may try to hold on even though it causes great discomfort to them. This can occur when the patient wants to remain in order to see a specific event (i.e. grandchild's wedding) or to reach a certain significant event (i.e. anniversary or birthday). Releasing the person from their concerns and giving them assurances that it is okay to let go whenever they are ready is one of the greatest gifts someone can give to a loved one. Again this may be a point where the patient and/or family is asked if they would like a chaplain or pastoral care representative with them.

Saying goodbye - when the person is ready to die, and the family is ready to let go, it is time to say goodbye. Saying goodbye is your final gift of love to the patient for it achieves closure and makes the final release possible. Saying "thank-you for..." or "I'm sorry for..." may all be appropriate at this stage. When the actual

moment of death occurs, some families may wish to have a chaplain or pastor say a final blessing for the deceased. This may help as a "turning point" for family members to begin the healing process of letting go and moving on with their lives. Once the patient has expired, some families may wish to have the chaplain provide a final blessing to the deceased. This blessing enables the family to begin their own healing process, allowing them to also "let go."

These are some of the things that can occur at the end stages of life. This is by no means a complete guide, but is based on the experiences of many colleagues, especially Robert A. Milch, MD, FACS (formerly LCDR, MC, USNR) and Liora Ziv, RN, EdD, who developed a working paper, and subsequently a brochure, based on a document used by the Hospice of Mid-Florida.(3) It is imperative that we in Navy medicine understand both the physiological and psychological changes our dying patients undergo so we can help guide them and their families on this final journey.

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Feature

Images from the "Forgotten War"



Nancy Crosby and LT Marion Pearson, MC, USNR.

While stationed aboard USS Haven (AH-12) anchored off Inchon in 1952-53, nurse-amateur photographer, LTJG Nancy Crosby, spent many of her off-duty moments recording life aboard ship and ashore. Now retired, CDR Crosby recently sent us some of those Kodachrome slides. Stored in an attic for the last 49 years, these remarkable images offer a rare glimpse of the "Forgotten War."

Photos from Nancy Crosby Collection



(Above left) USS *Haven* with its newly installed pontoon landing floats. Inchon, July 1952.
(Opposite top) USS *Consolation*. Inchon Harbor.
(Below left) Securing bridge pontoon to *Haven's* port side. July 1952.
(Below opposite) Bell HTL-4 aboard one of *Haven's* pontoon landing floats. July 1952.





(Above left) Marine pilot and Boston Red Sox star, Ted Williams, patient aboard USS *Haven*, March 1953. Glove courtesy of *Haven's* Welfare and Recreation Committee.
(Opposite right) Surgery Tent, "E" Medical Company, 1st Medical Battalion, 1st Marine Division, August 1952.
(Below) Hospital corpsmen carry a critically wounded patient aboard USS *Haven*.



(Above) "E" Medical Company, 6 miles from the front.
 (Above right) "E" Medical Company, August 1952.
 (Left) Papa-san smokes his pipe. Pusan, April 1952.
 (Below opposite) During a visit to a Korean orphanage,
 LTJG Crosby admires a child's doll.

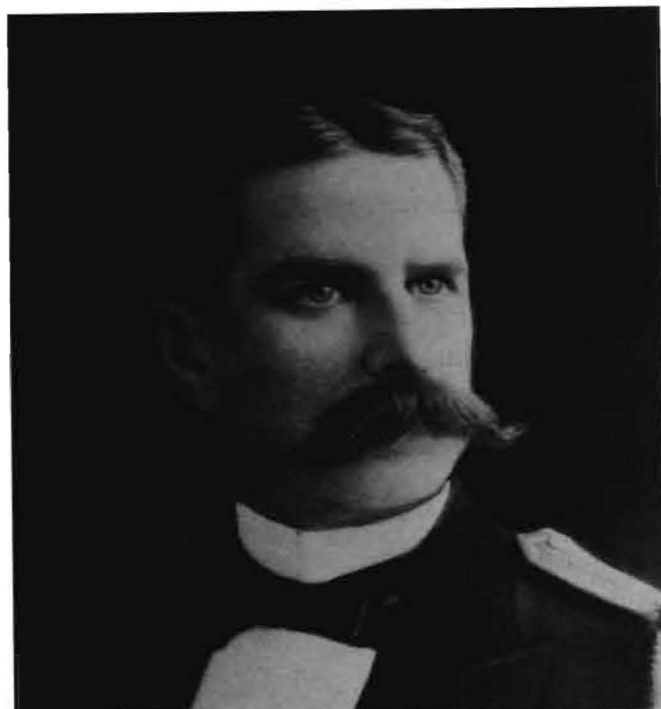
About the Photographer.

Navy nurse Nancy "Bing" Crosby joined the Navy in 1949. After assignments at the National Naval Medical Center Bethesda, MD, and Naval Hospital Beaufort, SC, she volunteered for duty in Korea aboard the USS Haven (AH-12), and worked on the hospital ship's surgical wards.



Command at Sea: The Hospital Ship Controversy of 1908-1921

CAPT S. Ann Ross, NC, USN (Ret.)



Surgeon General Presley M. Rixey

BUMED Archives

In the recent past, Congress as well as military planners have raised the question whether physicians should command medical facilities. But at the turn of the last century, the question was whether physicians with little or no sailing experience should command ships at sea. The answer was YES, thanks to the persistence of an idealistic physician and his personal influence with the President of the United States.

The physician was Presley Marion Rixey. Born in 1852, Dr. Rixey received his medical education at the University of Virginia and was commissioned assistant surgeon in the

Navy Medical Corps in 1874. He served for 36 years rising through the ranks and attaining the title of Surgeon General of the Navy on 5 February 1902.⁽¹⁾ Throughout his tenure as Surgeon General, he fought long and hard to improve the professional status of the Navy Medical Department. His contemporaries described him as a personable man of high qualities, good professional reputation, good innate political instincts and highly ambitious—personally and for his profession.⁽²⁾

Dr. Rixey's naval service included 11 years of sea duty which he viewed as the best of his career. A short tour

aboard the hospital ship USS *Solace* during the Spanish-American War further convinced him of the need for such ships in the Navy. In 1902, his first year as Surgeon General, he addressed the question of hospital ships in peacetime and continued to urge their necessity with increasing force year after year.

The opportunity to prove his point came in 1906 with the projected world cruise of the North Atlantic Fleet (The Great White Fleet). Early in the year, in his annual report to the Secretary of the Navy, he wrote: "...with an aggregation of vessels as large as that composing the United

States North Atlantic Fleet, with an enlisted personnel of 10,000 men or more, there is, under conditions of peace, abundant opportunity for...a hospital ship (to supplement) inadequate hospital facilities."⁽³⁾

Specifically, Rixey wanted the hospital ship *Relief* taken out of reserve at Mare Island, CA, and sent to the East Coast where she might be used while the naval hospital at Norfolk was being rebuilt.

USS *Relief* was a steel-hulled steamship with a wooden superstructure built in 1896. She was 314 feet long and displaced 3,300 tons. Her average speed was 16-17 knots. Originally christened the SS *John Englis*, she served as a passenger-cargo merchantman of the New England coastal trade until the outbreak of the Spanish-American War when she was purchased by the Army and converted into a hospital ship. *Relief* was the second ship to bear that name. (The first was a hospital/stores ship with the Wilkes Expedition in 1838.) Following the war, the Navy acquired her from the Army and placed her in reserve.⁽⁴⁾

To have a perfectly good "floating hospital" sitting idle was anathema to Dr. Rixey. Few could argue the need for improved medical care to the fleet, but the greatest obstacle to her renewed service was the issue of who would command her.

Previously, no one had questioned command of all ships by officers of the line. However, Surgeon General Rixey strongly believed that a hospital ship should be commanded by a medical officer. He struggled for years to place medical officers in command of medical facilities. From his point of view, this represented a vital step in the evolution of resources for the care of sick and injured and in

keeping with the scientific standard of the times. Dr. Rixey viewed the hospital ship as no different from any other medical facility. Earlier, he had convinced the Joint Board of Army and Navy Medical Officers to recommend in their report of 5 May 1906 that a medical officer be in command of the ship and that the crews of hospital ships be composed entirely of civilians.⁽⁵⁾

RADM G. A. Converse, Chief of the Bureau of Navigation, opposed the recommendations and stated in his endorsement that "the officers entrusted with the command of these vessels should be those whose experience and training qualifies them for commanding and navigating the vessels under all conditions of weather and unforeseen contingencies."⁽⁵⁾ However, the Secretary of the Navy, Charles J. Bonaparte, favorably endorsed the report, no doubt considering it an academic exercise since at that time there were no hospital ships in service.⁽⁶⁾

Now with the imminent cruise of the North Atlantic Fleet, Dr. Rixey raised the issue again over the continued objections of the Bureau of Navigation. The new Secretary of the Navy, Victor H. Metcalf, played a minor role in this argument with both sides appealing directly to President Theodore Roosevelt. RADM Converse had retired but his successor, RADM Willard H. Brownson, met with President Roosevelt calling his attention "to the illegality of placing a medical officer in command," that it was contrary to practice, and would interfere seriously with discipline. He came away from the meeting convinced that Roosevelt had found in his favor only to have Secretary Metcalf tell him a few weeks later that the president wanted the *Relief* commis-

sioned with a medical officer in command. RADM Brownson immediately sought another meeting with the president and again came away with the impression that the matter was closed.⁽²⁾

And so it was until 6 November 1907, when Surgeon General Rixey again wrote the Department of the Navy: "It is expedient to have a hospital ship in commission in time of peace (because)...hospital accommodations on the Pacific Coast...barely suffice for the ordinary requirements of the sick on that station."⁽¹⁾

Secretary Metcalf returned to RADM Brownson with Rixey's letter stating flatly, "the President wants it done."⁽²⁾ Brownson called upon Rixey hoping to persuade his long time friend to withdraw from this proposal. The Surgeon General, however, was adamant. He believed he could not accept the terms of Brownson's proposition without "breaking faith with his own honest conception of a real need, or sacrificing a definite and tangible benefit to an uncertain future."⁽¹⁾ RADM Brownson was busy getting the Atlantic Fleet ready to sail for the Pacific and let the matter drop for the moment. Dr. Rixey continued with his plans for the *Relief* and ordered Surgeon Charles F. Stokes, inventor of the Stokes Stretcher, to take command of the ship.

After the fleet sailed from Hampton Roads, VA, on 16 December 1907, RADM Brownson once again raised the issue with President Roosevelt. In response, the president promptly directed Secretary Metcalf, Brownson, and Rixey to appear before him simultaneously and present their respective sides of the case in person.

Brownson repeated his arguments but Roosevelt appeared unimpressed and ruled in favor of Dr. Rixey. Fol-

lowing the meeting, the admiral sent the president an eight-page memorandum of arguments completely describing numerous instances where many supply ships, troop ships etc., had been wrecked, foundered, or experienced serious incidents of insubordination because of incompetence on the part of civilian officers. He warned that, "the commissioning of a hospital ship for sea service as recommended by the Surgeon General will be fraught with endless complications."⁽²⁾

However, Brownson may have overstated his case since Roosevelt returned his lengthy memo with a short note: "It seems to me this case is fully met by the comparison you make between the hospital ships and the yacht. Owners of yachts when aboard them are only in a small number of cases the people who navigate them but it is to these owners that any order or request would be delivered. It is they who give the orders which are carried out by navigating officers. There can be no difficulty in producing the best results from the arrangement made."⁽²⁾

Although well acquainted with both men, President Roosevelt enjoyed a long friendship with Dr. Rixey who served as his personal physician. Indeed, the Surgeon General spent many hours at the president's home at Oyster Bay, NY, horseback riding and conversing with the president, and the Commander-in-Chief did likewise at Rixey's Arlington, VA, estate.

Roosevelt reveled in male friendships and even after entering the White House continued to greet with open arms cowmen or gunfighters he had known in the West.⁽⁷⁾ He was particularly fond of men who acted on their own

with the courage of their convictions. To say he was fond of Dr. Rixey is perhaps an understatement. Their relationship was a perfect example of male bonding common at that time. As Roosevelt's physician, the Surgeon General would accompany him on many trips having ample opportunity to present his views. Certainly, Rixey's biographers deny that favoritism influenced Mr. Roosevelt to overrule RADM Brownson. However, Rixey, himself, admits that he talked freely with the president on many occasions. And also there is ample evidence in the president's letters to Dr. Rixey of the high esteem in which he held his dear friend.⁽⁸⁾

Roosevelt even had previous experience with physicians in non-medical roles. While serving as Assistant Secretary of the Navy, he met an army doctor, Leonard Wood, who served as personal physician to both Presidents Cleveland and McKinley. Roosevelt and Dr. Wood became close friends.

During the Spanish-American War, when the volunteer cavalry regiment, the "Rough Riders" was formed, Roosevelt urged that Dr. Wood be placed in command. He then resigned as Assistant Secretary to serve under him with the rank of lieutenant colonel.⁽⁷⁾ As Roosevelt greatly admired Dr. Wood, it is not, therefore, surprising that he should be more influenced by Dr. Rixey than by RADM Brownson.

Therefore, on 4 January 1908 President Roosevelt wrote to the Secretary of the Navy: "Hospital Ships of the Navy... will be placed under the control and command of medical officers of the Navy, their navigation being exclusively controlled by a competent sailing master... The command of a hospital ship should unquestionably be vested in a medical officer and no line officer should be aboard it."⁽⁹⁾

The rule "no line officer" came from Rixey's concern that the newly designated non-combatant status of

hospital ships would be jeopardized by the presence of any line officers of the Navy. However, the Navy amended the rule almost immediately to allow the assignment of paymasters to the ships.

In response, RADM Brownson formally resigned from the Navy, believing he could no longer hold his self-respect and his position as Chief of the Bureau of Navigation when his Commander-in-Chief had exhibited a lack of confidence in him.

The admiral's resignation caused quite a stir in Washington among members of Congress as well as the news media. The fuss divided Congress and only served to strengthen President Roosevelt's resolve. In fact, he was furious that Brownson would resign rather than obey his orders.⁽¹⁰⁾

Thus, on 6 February 1908, the Navy commissioned USS *Relief* under the command of Surgeon Charles F. Stokes, USN. A sailing-master, F. N. Le Cain of the Naval Auxiliary,

directed navigation, and other Naval Auxiliary officers directed important departments such as engineering. *Relief's* officers also included five physicians and the paymaster. The crew consisted of civilian Sailors, and the entire graduating class of the Hospital Corps Training School in Washington, DC, thus becoming a post-graduate school for apprentices. The Navy did not assign nurses as they had none at that time. (Dr. Rixey believed strongly that the Navy needed a Nurse Corps and was instrumental in its establishment later that year.)

Relief contained four principal wards designed to care for 195 patients, and a 30-cot mosquito and fly-proof infectious disease ward aft on the hurricane deck.

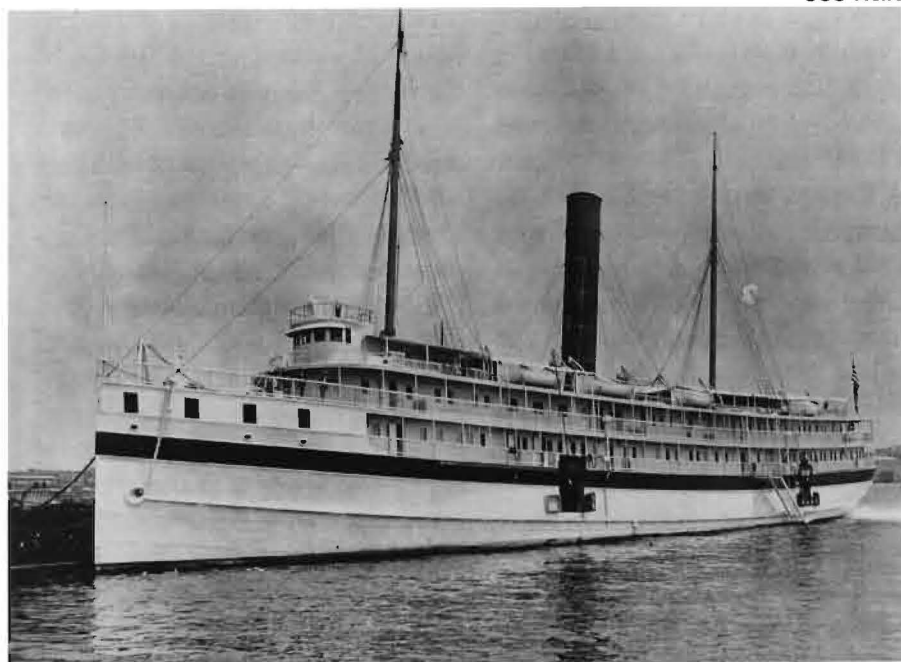
On 24 March 1908, *Relief* sailed from Mare Island for Magdalena Bay, Baja California, Mexico, to meet the "Great White Fleet" on its historic voyage around the world. She arrived less than a week later with 152 pa-

tients on board but immediately had problems entering the port safely. The Sailing Master had never before entered the harbor and there were no charts of the channel aboard. Fortunately, one of the medical officers, Dr. Walter Schaller, had been in the bay a few months before when stationed aboard the cruiser, USS *Pennsylvania*. Dr. Schaller recalls the day: "I was called to the bridge and questioned as to whether I knew of any reefs or shoals. As I knew of none, it was decided to proceed cautiously, and thus we anchored with the Fleet. Our captain, however, had neglected to signal our arrival and request permission to anchor, and when the presence of our high-riding excursion-like vessel was disclosed at sun-up, reproof from the flagship was immediately forthcoming."⁽¹¹⁾

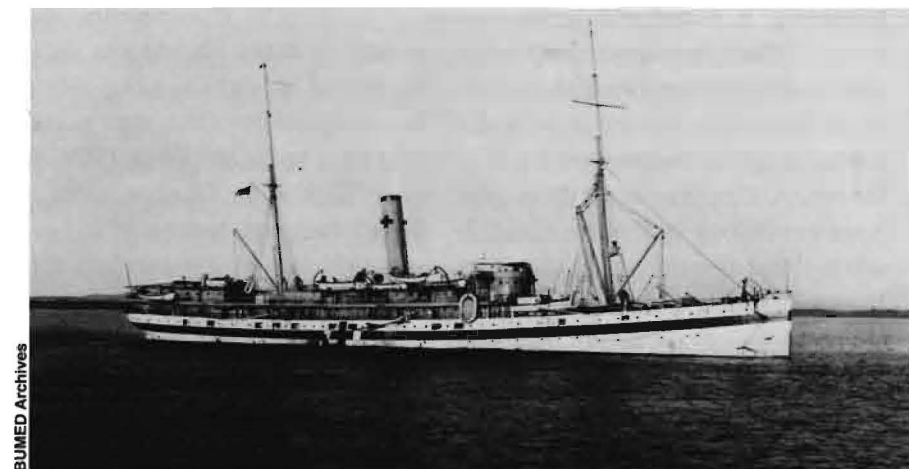
By the time the fleet reached San Diego, *Relief* was already living up to Dr. Rixey's expectations. Loaded with patients, she had to sail north to San Francisco to transfer the seriously ill to the Mare Island Hospital. In Honolulu, *Relief* took on surgical and medical supplies and replenished the sick bays of nearly every battleship in the fleet. In July, her staff helped stem an invasion of scarlet fever and diphtheria which overtook the battleship *Nebraska*. By the time the Fleet reached Sidney, Australia, *Relief* had treated 649 patients, nearly half of whom returned to duty. Her staff had performed 102 surgical operations on board.⁽⁴⁾

However, because of her high superstructure, *Relief* proved to be a notorious "roller." That plus rough weather and problems with boilers, caused the Navy to order her separated from the Fleet at Sidney and sent to Manila for repairs. There, a

USS *Relief*

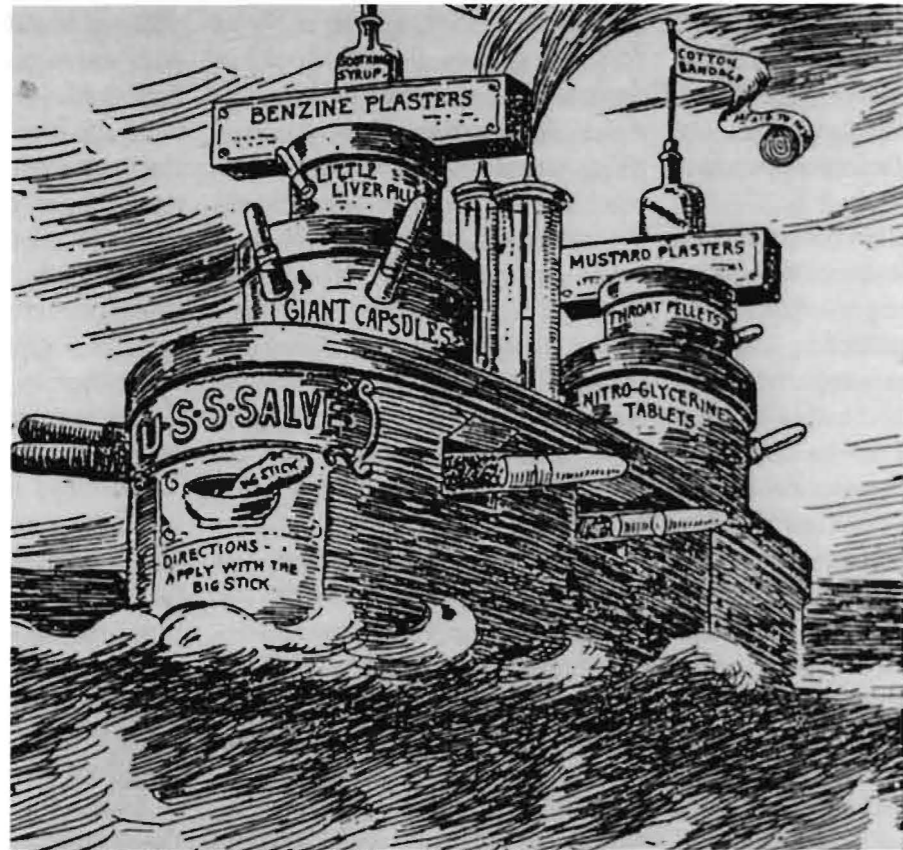


BUMED Archives



USS *Solace*

BUMED Archives



A contemporary cartoon captioned "The Modern American Dreadnought" set the tone for the command controversy.

Naval Historical Foundation

survey board determined that *Relief* needed to return to the Pacific Coast via Guam for overhaul.

Typhoon signals were up and the barometer falling on her scheduled sailing date of 16 November 1908. Captain Stokes received permission to delay sailing, but he was insistent that departure not be postponed. So *Relief* left Manila en route to Guam on schedule but unescorted and without wireless radio. The weather became increasingly threatening, and on reaching San Bernardino Straits, Sailing Master Le Cain advised that the ship "lay to" in the lee of the islands before proceeding to the open sea. Captain Stokes, anxious to be on his way, rejected the advice.⁽¹¹⁾

Two days later, *Relief* encountered a typhoon of such intensity that it disabled the engines and generators. Fire

broke out in seven different places during the night and wind and waves extensively damaged the ship's superstructure. Dr. Schaller describes the scene: "When the storm abated, the ship had been driven far off the beaten track. Sails were set and a sheet anchor was put out to keep her 'head to the sea.' Attempts to repair the engine were unavailing until November 22, when the difficulty was solved by Horace E. Perlie, a hospital corpsman. He had received dental training and served as the ship's dentist, since at that time there was no regular dental corps in the Navy. He identified a broken eccentric strap as the cause of the breakdown, worked continuously for 24-hours to improvise a new one, which he fashioned by hammering out three crowbars. Her engine restored, the ship limped back to Manila at 10

knots, arriving approximately on Thanksgiving Day, November 26, 1908."⁽¹¹⁾

Found to be unseaworthy, *Relief* remained in the Philippines serving the rest of her days as a pier-side station hospital for Olongapo north of Manila. On 1 December 1908, Surgeon Arthur W. Dunbar, USN, relieved Surgeon Stokes of his command. However, the incident apparently didn't harm Stokes' career as he later was appointed Surgeon General of the Navy.

Two years later on 10 June 1910, *Relief* was decommissioned but she had proved the worth of a peacetime hospital ship with the fleet. As a replacement, the Navy removed the Spanish-American war veteran, USS *Solace*, from transport duty. Originally named *Creole*, she had been

built in 1896 for service as a passenger-cargo steamer. *Solace* had two masts, a length of 377 feet, 5,700 tons displacement and had an estimated speed of 15 knots.⁽¹²⁾

On 20 November 1909, after extensive overhaul and alterations, (which included adding a wireless radio), *Solace* was re-designated as a hospital ship. Again, some in the Navy Department raised the issue of medical officers in command at sea. William H. Taft was now president and some hoped he would reverse his predecessor's decision. However, President Taft affirmed Roosevelt's action by approving the assignment of Surgeon George Pickrall, USN, as the *Solace* commanding officer.⁽¹⁾

Solace's staff consisted of six medical officers, a pharmacist, and 52 hospital corpsmen. The operating room (with two operating tables); the eye, ear, nose, and throat examining room; the laboratory; and the dental laboratory were located on the upper deck forward. Three isolation wards on the hurricane deck aft contained a capacity for 30 patients and two main wards with double tiers of bunks, accommodated 68 medical patients and 76 surgical patients on the main deck forward.

During the next few years, *Solace* served the Atlantic Fleet from Cuba to Newport, RI, transferring patients to the naval hospitals at Washington, DC, and Norfolk, VA, including one round trip from Hampton Roads to Marseilles, France.

As World War I began in Europe, the battle over hospital ship command continued in the Navy. Congressional action on 29 August 1916 allowed navigational, deck, and engineering duties on a hospital ship to be assigned to line officers of the Naval Reserve Force (USNRF), but left

command with a medical officer.⁽⁴⁾ When the United States declared war on Germany in 1917, the Navy took immediate steps to increase the number of hospital ships in service, and purchased two troop transports from the War Department for conversion.

The Navy commissioned the first of the new hospital ships, USS *Mercy*, on 24 January 1918 also under the command of a medical officer (now with the title of Medical Inspector). Originally built in 1907 as the SS *Saratoga*, she had been a passenger liner with the Ward Lines in New York. A steamship, *Mercy* had a displacement of 11,250 tons, an overall length of 429 feet, and speed of 15 knots. Assigned to the Atlantic Fleet with Yorktown as her homeport, *Mercy* operated in Chesapeake Bay gathering the war wounded and transporting them from ships to shore hospitals.⁽¹²⁾

Two months later, USS *Comfort* was commissioned. A steamship with displacement of 10,102 tons, overall length of 429 feet, and speed of 18 knots, *Comfort* had been built in 1906 as *Havana*. She also had functioned as an Army troop transport before her conversion. Assigned to New York, *Comfort* served as station hospital under the command of Medical Inspector C. M. Oman, USN.⁽¹²⁾

In October 1918, the Navy ordered both *Mercy* and *Comfort* to join the Cruiser and Transport Force, Atlantic Fleet, to return wounded men from Europe. During the next year the two ships (still under medical command) made a total of seven trips to France, Britain, and the Azores, returning with a combined total of over 3,000 casualties.

Following World War I, the Navy continued with the practice of peacetime hospital ships, assigning *Mercy*

to the newly established Pacific Fleet and *Solace* to the Atlantic Fleet. *Comfort* went into reserve at Mare Island, CA.

In Philadelphia on 28 December 1920, the Navy commissioned the third hospital ship to be named *Relief*. USS *Relief* (AH-1) was the first of the hospital ships to be numbered. Hull numbers were also assigned to the ships currently in service. *Solace*, *Comfort*, and *Mercy* became AH-2, 3, and 4 respectively. The old *Relief*, now called *Repose*, had been stricken from the Navy record and sold in the Philippines.

The new *Relief* was also the first and only ship designed and built from the keel up for hospital service. With an overall length of 483 feet and a designed speed of 16 knots, she was the most modern and best equipped hospital ship in the world at that time. Her design included a complement of 44 officers and 33 enlisted men and a bed capacity for 500 patients. Among her staff were the first Navy nurses to serve aboard a hospital ship.⁽¹²⁾

Relief left Philadelphia in February 1921 for duty with the Atlantic Fleet, CDR Richmond C. Holcomb, MC, USN, commanding. However, his tour was to be short lived as the long standing argument over hospital ship command finally came to a head, with an incident aboard *Mercy*.

On 13 March 1921, *Mercy*, en route from Mare Island to San Pedro, CA, entered a thick fog about 1220 while approaching the dangerous shoals of the Santa Barbara Channel (sometimes called the Graveyard of the Pacific). Naval regulations required ships of the fleet to report their noon position. Usually, the senior deck officer would determine the position, prepare and sign a navigation form for that purpose. In this case, the senior

deck officer, LCDR Athol H. George, USNRF, was on the bridge navigating the ship through the fog. LCDR George had 23 years of active sea service, about 12 years of which was as deck officer and master of various passenger and cargo steamers as well as oil tankers. He had been with the Naval Reserve Force for about 3 1/2 years. His assistant, a lieutenant, had prepared the navigation form, but LCDR George, due to the existing weather conditions, was unwilling to leave the bridge and enter the pilot house to check the figures. Since he could not personally verify the ship's position, he declined to sign the form and sent it to the commanding officer with the lieutenant's signature.(13)

This action upset the commanding officer, a surgeon. He personally took the position report up to the first deck and ordered LCDR George to sign it. At this time, George was giving all his attention to conning the ship as he anticipated the need for a course change to avoid the shoals. He had doubled the lookouts and then gave them directions to listen carefully. They heard a steamer's whistle on the starboard bow and shortly afterwards, at 1226, the Point Arguello fog siren on the port bow. At 1239, LCDR George estimated the sound of the fog siren was abeam. A sounding showed 39 fathoms, and when he decided that Point Arguello was abeam, he changed course from south 48 east to south 65 east per standard compass. When LCDR George refused to leave the bridge during this action, the commanding officer charged him with failure to obey a lawful order and ordered his trial by general court martial.

At the court martial, the commanding officer admitted he was not on the bridge during the dangerous passage through the fog as he had "always

considered that everything pertaining to the navigation of the ship was under the charge of LCDR George." He stated that navigation would be his responsibility if he commanded a battleship but not as commanding officer of a hospital ship. Despite this testimony, which seemed to favor the defendant, the accused was found guilty of disobeying a direct order and was sentenced to be dismissed from the service.(13)

The convening authority, Commander-In-Chief, Pacific Fleet, approved the proceedings, findings, and sentence, and referred the record to the Secretary of the Navy for transmission to the president. However, the Judge Advocate General in his review decision found that the order was not lawful since it would have taken the accused away from his primary duty of navigating the ship at a critical time. Furthermore, the decision stated that "medical officers cannot exercise command in the line...either by law or existing regulations and, therefore, the accused was not guilty of having disobeyed the lawful order of his superior officer."(13)

That summer the Navy decommissioned *Solace* and *Comfort* and relieved the *Relief* and *Mercy* commanding officers of their commands, replacing them with line officers. This finally ended the controversy over command at sea and a brief but colorful era in the history of the Navy Medical Department.

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CAPT Ross resides in Polson, MT.

Forum

Due to a technical printing error, the last portion of the article below was not printed in the Jan-Feb '02 issue. We have reprinted the entire article here and encourage all to reread it with the missing portion. We apologize for the error.

Strategic Biodefense A Call to Reinvent The Hospital Ship

Over the past few years, *Navy Medicine* has been host to a refreshingly wide-ranging and frank debate about future hospital ship development.(1, 2) Unfortunately, an important issue, the potential role of hospital ships in biological defense, was overlooked. Do hospital ships have a place on the biological battlefield?

Serious biodefense challenges loom on the horizon. By changing the traditional role of Navy medicine and promptly reinvigorating the somewhat tired "hospital ship" concept, the Navy has an opportunity to accelerate development of viable large-scale biowarfare defenses.

Though present day illicit biological agents are, for the most part, an array of balky, relatively ineffective "prestige" terror weapons, new technologies and the proliferation of technical expertise make development of increasingly lethal second-generation bioweapon delivery systems a viable option for several countries and non-state entities. Both infectious and non-infectious bioweapons have proliferated, and some infectious microbes, weaponized through illegal, clandestine

research, have gained strategic utility as asymmetric, destabilizing tools.(3) The Navy has an opportunity and obligation to serve on the biodefense front line, protecting America from germs manipulated to serve as strategic weapons.

Today, America's primary floating medical assets, the *Mercy* class hospital ships (T-AH 19 and T-AH 20), are well-equipped trauma facilities but poor disease-fighting platforms. A few other highly capable, multi-mission ships have the ability to confront basic, first-generation bioweapons, but consignment of these ships to biodefense duty may threaten the integrity of Marine amphibious units. The time has come to develop a class of small, simple ships dedicated to biodefense. A set of public health platforms, focused on fighting disease, can fill an emerging defensive niche and, in addition, supplement America's floating trauma-based medical care infrastructure.

If challenged by an infectious disease crisis, the Navy's two hospital ships, USNS *Mercy* (T-AH 19) and *Comfort* (T-AH 20) can offer rela-

tively little to stricken communities. Design shortcomings and biodefense-related vulnerabilities, evident since the Gulf War, plague the *Mercy* class and limit the utility of these enormous floating hospitals. In 1998, Pietro Marghella summarized several problems, and his searing *U.S. Naval Institute Proceedings* hospital ship review, entitled, "Replacing the Great White Elephants with LSTs" prompting a variety of improvements.(4) Small isolation units and other biodefense-related modifications were added to the hospital ships, but the *Mercy* class remains an imperfect medical asset on the biological battlefield.(5) Accidental or unknowing admission of infectious or infected casualties to bunks outside the tiny isolation wards poses a particular risk to patients and the large crew required to staff *Mercy* class hospital ships.(6) The Navy needs better tools to confront infectious biological agents.

Biodefense requires easily utilizable equipment and flexible doctrine. Widely dispersed, active duty disease fighting assets only make a good foundation for large-scale biodefenses if they are permitted to engage emergent disease problems. As diseases become increasingly effective strategic tools, Navy medicine must peer beyond limited tactical issues like battlefield trauma care, local force protection and medical infrastructure management to consider a larger and rather ambitious defensive role. The Navy, if interested in biodefense, can help protect the continental United States by supporting prompt, worldwide disease detection and control. This concept, strategic biological defense, needs a champion in Navy medicine and support from the larger

national security community. Departure from the traditional, behind-the-scenes support role of Navy medicine may prove difficult, but a struggle for a flexible set of forward-deployed biomedical defense elements, coupled with a vigorous effort to change the strategic role of Navy medicine will, over the long term, make America a stronger and safer nation.

Smaller, less complex, "street fighting" hospital ships, if used aggressively, can confront asymmetric biowarfare by supporting two simple disease control tactics: disease detection and prompt disease containment. For the Navy, these defensive approaches are problematic since disease detection and disease control responsibilities are dominated by non-military public health and policy organizations.

Both civilian and military actors recognize that community-wide disease control failures have major strategic consequences, yet traditionalists on either side are discomfited at the prospect of enhancing civil-military collaboration. Terrorists and other entities interested in developing infectious biological weaponry will try to exploit the vulnerable "seams" that are exposed by cultural gaps and bureaucratic turf battles. Unless civilian and military groups agree to overcome their animosities, the all-to-hesitant and, at this point, relatively inadequate efforts at implementing joint civil-military disease control operations will only encourage biological adventurers. A new type of hospital ship, built to serve a biodefense role, can, at a minimum, act as an incubator to test what will certainly be a contentious evolution toward enhanced civil-military partnerships.

By departing from the established, trauma-based "hospital ship" concept and embracing a public health or disease control orientation, the Navy will be better prepared to confront a future rife with asymmetric conflict. A ship built for the biological battlefield requires few of the expensive features necessary for survival on an "overt" front line; biological agents are primarily tools of a more subtle and crafty way of fighting war. Dedicating a large, complex ship like the *San Antonio* Class (LPD-17), or committing portions of a Marine Expeditionary Unit (MEU) to biodefense duties during peacetime is a good idea, but those ships and personnel are tasked to serve and survive relatively conventional, overt conflicts. These important resources will likely be needed elsewhere during disease crises.

A set of small, economical ships dedicated to biodefense is a sensible option. First, a specialized biodefense ship gains a measure of tactical flexibility. After the USS *Cole* disaster, few political or military leaders will risk exposing transport and supplies for a large Marine contingent to an uncontrolled, complex harbor environment. At the moment, even vague indications of terrorist activity suffice to rush large, strategically important ships to the open sea. An inexpensive, less sophisticated, and smaller disease control ship is a much lower-profile terrorist target, and even a successful terrorist attack is unlikely to have immediate national security ramifications. Second, a handful of very tightly focused, specialized personnel, modeled after Centers for Disease Control and Prevention Epidemic Intelligence Service teams, can move

faster, offer more substantial assistance, and be less vulnerable during disease emergencies than a relatively unspecialized group of combat-ready Marines. MEUs might be useful to handle problems ignited by grave, out-of-control disease outbreaks, but as a tripwire mechanism to quickly bolster local disease fighting "first-responders," Marine combat units are a poor choice.

Some biodefense advocates envision using pre-deployed land-based or airborne assets as a means to quickly examine and evaluate disease outbreaks. Though those options initially appear economical and quite capable, a ship-based laboratory and logistical facility provides added flexibility during what will be, in most cases, a delicate diplomatic situation and a deteriorating operating environment. Permanent disease monitoring centers are "soft targets," vulnerable to social unrest or political disturbances.⁽⁷⁾ Admittedly, Navy Medical Research Units are incredibly valuable facilities, but potential interruption of regional disease monitoring, epidemiological consulting efforts and the limiting of laboratory use is unacceptable, especially during crises that offer perfect cover or justification for the dissemination of infectious disease weapons. Airborne disease control assets are both faster to deploy and necessary for inland regions, but their insertion requires extensive interaction with a host government, a government that may be unwilling or unable to respond quickly during a biotech crisis.

A ship is an interesting compromise. By offering safe, relatively robust laboratory facilities, supportive medical care and basic tactical intel-

ligence, forward deployed biodefense ships permit in-depth and vigorous action by disease-fighting "first-responders," be they local medical providers, Centers for Disease Control and Prevention investigators, or non-governmental disease control organizations. Disease fighters are usually at the end of a very long, tenuous, and fragmented biomedical support chain. They will, as bioweapons enter more and more arsenals, need the extra assistance.

What type of ship can serve in a biodefense capacity? A version of Australia's inexpensive High Speed Vessel (HSV) might be a robust yet relatively frugal starting point for design discussions.⁽⁸⁾ Ambitious, longer-term solutions might evolve from the trimaran R/V *Triton* or from ultra-stable, small-waterplane-area-twin-hull (SWATH) ships.^(9, 10) Any basic, small-crew, high-endurance platform, able to operate for long periods in unimproved harbors will make a good foundation for a new class of disease control ships. Coupled with a well-appointed, possibly modular research lab/infectious disease hospital and some modest amphibian, helicopter, and UAV capabilities, a rapidly arriving disease control support craft can direct a pulse of aid and information to struggling local doctors, epidemiologists, or other disease control teams. A medical ship can securely coordinate needed logistics and communications for further deployment of disease fighting personnel, or, perhaps, elements of a larger security force. Even limited assistance delivered in a timely fashion to key local medical leaders or crucial facilities can go a long way toward hardening local pub-

lic health infrastructure and halting small, nearby disease outbreaks.

Would a set of disease control ships fit into America's fledgling biodefense efforts? Who knows? Homeland Defense, a still-evolving defensive concept, focuses upon protecting the U.S. mainland from asymmetric threats. Though a valuable initiative, Homeland Defense is inwardly focused, and, given the panic over Anthrax-laced mail and the prospect of more terrorist activity, hurried efforts to implement domestic security programs may drain resources and even hinder efforts to create effective, forward deployed, strategic biodefenses. America needs an overseas biodefense element; diseases, thanks to global trade links, better transport and high international travel rates, can easily "escape" from far-off battlefields, illicit bioweapon laboratories, or even tiny, isolated villages and spread into naive, vulnerable population centers. The Navy, by developing and supporting forward deployed, active duty disease control assets, can supplement control efforts abroad before a disease grows into an imminent threat to the continental United States. Stopping a fulminating, raging epidemic at the border is a much more risky, difficult, and costly endeavor than the alternative, containing isolated disease outbreaks overseas. Such efforts are also useful in advancing long-term disease control strategies that may, in the future, prove valuable to America.

In a world where natural disease events and acts of war are increasingly indistinguishable, the ability to rapidly project substantial medical and scientific support into the littorals will prove a useful resource. The stakes

are high. Experts from a disease control ship can help soothe panicked command and control elements during a disease crisis; in certain nuclear-armed countries like Pakistan or India, the attendant confusion and social disruption might easily spark a miscalculation and, potentially, an unwarranted nuclear response. As fear of biowarfare grows, biodefense ships might serve to assure potentially targeted countries and even deter biotech attackers. Asymmetric efforts to disrupt America's far-flung logistical, intelligence, and alliance base can occur at any moment, diverting attention before an overt crisis or entangling operations after hostilities commence. The realistic economic, political and military consequences of infectious bioweaponry used overseas pose an often un-discussed, un-publicized and under-appreciated strategic threat that America, reeling from domestic bio-assault, can ill afford to ignore.

"Consequence management" is the obvious mission for sea-borne assets detailed to strategic biological defense. Most littoral regions of interest to the Navy already over-extend their medical resources and are unlikely to successfully undertake large-scale, rapid, and coordinated disease identification and control efforts. The heavily urbanized littorals are a particular problem; these regions are likely targets for epidemics, natural and intentional alike, and the possibility for rapid international dissemination is quite high. The occasional crisis response mission, however, is only a single, albeit high-profile facet of strategic biological defense. The real defensive contribution, quite simply, stems from routine and unexcit-

ing public health tasks. Every deployment and each regular biodefense patrol offers an opportunity to help emphasize and note glaring public health and other economically important crop-based or livestock-based disease-detection deficiencies before a real crisis strikes.

One routine biodefense task is disease tracking. Biotech crisis response will work only if biological threats are rapidly detected and assessed. Infectious diseases and other biological weaponry, unlike conventional strategic dangers, are somewhat difficult to monitor from afar without a strong regional and global disease-monitoring infrastructure. Maintaining high quality, military grade disease "surveillance," or disease monitoring, is a tedious, hands-on endeavor—local doctors, veterinarians and others need to know where, how, and when to report suspicious outbreaks. The work is unglamorous and repetitive, but encouraging this sort of cooperation on both national and regional levels is important; without better disease detection efforts, diseases will be tough to control.

Disease monitoring is a high-maintenance affair. Even the best disease surveillance system withers without constant encouragement and tending. Regular port visits are ideal opportunities to invigorate disease surveillance activities by permitting regional medical providers and disease control experts to mix and train with their American counterparts. This personal contact is critical because good disease surveillance is founded upon strong, slow-to-develop personal and professional relationships. Informal contacts are valuable too. The recent domestic outbreak of West Nile virus,

for example, graphically demonstrated that personal relationships often circumvent and bypass bureaucratic logjams inherent in centralized and nationalized disease surveillance. The existence of West Nile in America was only confirmed after concerns raised by Tracy McNamara, a civilian veterinary pathologist, were spurned by civilian agencies. She turned to acquaintances at a military research institution, and, after a few days, her hunch, backed by concrete laboratory data, forced public health agencies to recognize that West Nile virus had reached the United States.⁽¹¹⁾ A single, persistent doctor or veterinarian, if given a means to contact a well-equipped American peer, can accelerate disease recognition and jump-start outbreak control efforts.

The conventional warrior has several reasons to question strategic biodefense. The first and most trivial point is ideological; the idea that military personnel are to fight in the "traditional" fashion is seductive, and the belief that military medicine must solely serve warfighters remains pervasive. The second grows from fallout over the looming anti-terrorism campaign. Terrorist threats only encourage a risk-averse and hard-pressed Navy to foster a much lower overseas profile. Far-flung medical missions, primed, in most cases, to intervene before a disease outbreak becomes an imminent, obvious threat might be considered an overly risky and inappropriate use of military personnel. Finally, the political complexities of crafting a cohesive biodefense strategy are daunting; too many players are fighting for a role in what will probably become a multi-

agency, multi-country, civil-military ballet, or, depending on the point of view, a multi-agency, multi-country, civil-military quagmire.

Most concerns can be met. Clausewitz, the great military philosopher whose tome, *On War*, graces the bookshelves of many professional career officers, stands as a grim reminder that military forces have a history of fighting disease threats. Long before public health emerged as a discipline and before infectious disease epidemiology was invented, the military was called to confront disease and community-wide public health failures. Clausewitz himself was an early and fatal casualty of a poorly planned, static version of homeland defense. Sent to stop a cholera epidemic from crossing the German border, Clausewitz, on 16 November 1831, lost his life after a 24-hour struggle with the very disease he was ordered to defeat.⁽¹²⁾

Soldiers and Sailors traditionally fought disease threats by promoting public health and sanitation initiatives. Only after antibiotics and vaccines began to insulate warriors from the scourge of infectious disease did the importance of military sanitarians and public health specialists fade. Basic public health practice has atrophied; on the biological battlefield, practitioners of these seemingly archaic disciplines must recover their place as an important component of military medicine.

The military has, through past public health efforts, earned a long, rich disease control legacy, a legacy that is under-appreciated and has fallen into disrepair. Like hospital ship doctrine, this forgotten legacy needs reinvigoration outside the pages of

"trade" publications like *Navy Medicine*.

Failure to promptly embrace and publicize the American military's public health legacy will only serve to compromise future domestic civil-military disease control initiatives, and, in turn, complicate efforts to spark overseas cooperation with disease surveillance projects. Time is short. As disease outbreak detection and response becomes a national defense concern for an increasing number of countries, the American government will encounter great difficulty encouraging international disease control cooperation. By acting now, the Navy can help cement fledgling international disease control alliances and support American biosecurity for decades to come.

There are other, less tangible benefits to reinvigorating Navy-based public health resources. Medical missions are great image-makers; disease control drills and public health coordination exercises pay large foreign policy dividends. During the 5-day Edged Mallet '99 exercise at Mombassa, Kenya, American and local Kenyan personnel treated over 1,300 patients at the Port Reitz Chest and Infectious Disease Hospital.⁽¹³⁾ What better and more cost-effective way to defuse seething anti-American resentments and stymie terrorist efforts to prey on anti-Western sentiment? Medical care and public health infrastructure support can become the new, 21-century "candy bar" and be used by the Navy and Marine Corps to strengthen bonds of international goodwill, build an image, and burnish a legacy.

One caveat remains unanswered. Biodefense remains a complex, mul-

tifaceted, and thankless task rife with political risks, interagency conflict and even possible constitutional entanglements. That said, domestic homeland-oriented biodefenses are likely to be even more contentious and difficult to implement than overseas biodefense efforts. The Navy and Marine Corps can sidestep these domestic difficulties, and, by testing different collaborative structures or disease monitoring schemes overseas, become key players as strategic biodefenses are gradually integrated with homeland defense efforts. No agency or bureau can counter the bioweapon threat alone, but the Navy, by redefining and re-engineering the traditional hospital ship role, can begin building a collaborative foundation for a cohesive, in-depth national biodefense strategy. These newly strategic weapons force strategic, large-scale defensive responses.

Biological weapons are weapons of the future; Navy medicine requires better tools and tactics to protect fighters and civilians from this emerging defense challenge. A new strategic framework, coupled with a reinvigorated sense of mission is no final answer, but merely a first step in confronting future biotech arsenals. The role of Navy medicine is changing and this evolution requires aggressive and novel "think-out-of-the-box" approaches. A new, "street-fighting" hospital ship is just one of many ways Navy medicine can help engage emerging biotech threats. By contacting local actors, probing the nearby disease fighting infrastructure, and determining likely communications and logistical support needs, simple hospital/disease oriented ships and medical personnel can leave behind

an under-appreciated, rarely utilized role as solely "crisis-oriented" white elephants to become effective defensive assets.

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In Memoriam



CAPT Emmett Lee Van Landingham, Jr., MSC, (Ret.) died on 16 January 2002, at a Fairfax retirement facility at Fort Belvoir, VA. He was 86.

A native of McCool, MS, CAPT Van Landingham attended Hinds Junior College before beginning a long and distinguished naval career with his enlistment in 1934. Advancing through the enlisted ranks, he became a Navy pharmacist, and, in 1944, was commissioned an ensign in the Hospital Corps.

He became a plank owner in the Medical Service Corps upon its establishment in 1947. The following year he graduated from Ben Franklin University with a degree in commercial science.

Assigned to Commander, Naval Forces in Europe from 1942-1944, he served as a Medical Department representative with an advance group selecting and establishing medical facilities for amphibious bases in Europe. After his commissioning in 1944, he became the first officer-in-charge of the Medical Supply Storehouse at Exeter, England, supporting the invasion forces.

He settled in the Washington area in the mid-1950s, and received an MBA from Harvard University in 1954. From 1958 to 1964 CAPT Van Landingham was deputy comptroller of the Bureau of Medicine and Surgery. He spent the next 4 years as commanding officer of the Naval School of Hospital Administration at

the National Naval Medical Center, Bethesda, MD.

CAPT Van Landingham's career culminated in his appointment as the Chief of the Medical Service Corps, a position he held from 1968 until his retirement in 1973.

His decorations include the Good Conduct Medal with two bronze stars, American Defense Service Medal, American Campaign Medal, European Campaign Medal, World War II Victory Medal, National Defense Medal, and Legion of Merit.

Carrying on the family tradition of Medical Service Corps leadership, CAPT Van Landingham's nephew, RDML J. Philip Van Landingham, is that corps' current Director.—JMH

In Memoriam



CAPT Thomas Behney Lebherz, MC, USN (Ret.), died on 17 January 2002 at the UCLA Medical Center in Los Angeles, CA. He was 79.

Dr. Lebherz earned his bachelor's degree from Mount St. Mary's College in Emmitsburg, MD, in 1943 and graduated from Georgetown Medical School in 1946. Following his internship at Mercy Hospital in Baltimore, MD, he enlisted in the Navy. Dr. Lebherz eventually served at six U.S. naval hospitals. During his naval career he served as the Chief of Obstetrics and Gynecology at the National Naval Medical Center, Bethesda, MD, Oaknoll Naval Hospital in Oakland, CA, and at the Naval Medical Center, San Diego. Dr. Lebherz delivered more than 10,000 babies throughout his naval career and, while

at the Naval Hospital Corona CA, he delivered a record 24 babies in one 24-hour period. This feat prompted an invitation to appear on the Groucho Marx game show "You Bet Your Life" in 1954.

A case of tuberculosis forced Dr. Lebherz to retire from the Navy in 1968, but did not stop his productive career in academic medicine. He held positions at Case Western Reserve School of Medicine and the Cleveland Metropolitan General Hospital before joining UCLA's obstetric and gynecology department in 1970.

While at UCLA, Dr. Lebherz served as director of the obstetrics and gynecology clinics, as chief of the gynecology division in the Department of Obstetrics and Gynecology, and professor in the Department of Obstetrics and Gynecology. With another

retired Navy captain, Dr. Armand Pereyra, Dr. Lebherz pioneered new surgical techniques for treating urinary stress incontinence, a condition women can develop after a vaginal delivery. This breakthrough corrective surgery became known as the Pereyra Procedure, and later, the Modified Pereyra.

Dr. Lebherz's research also focused on areas including premature rupture of the membranes, also referred to in pregnancy as "water" breaking. He also researched the use of amniocentesis to detect congenital anomalies in a fetus during the second trimester of pregnancy.

According to a friend, "Tom was a teacher of many, friend to many more, and a credit to the United States Navy."—ABS

Book Review

Scourge: The Once and Future Threat of Smallpox by Jonathan B. Tucker. Atlantic Monthly Press. New York, 2001. 251 pages.

Academic Jonathan Tucker produced his third medically investigative book during a 1-year fellowship at Stanford University Department of Public Policy. His book examines the history as well as the national security and policy debates of a single disease, the variola or smallpox virus. Humanity has been plagued by smallpox with infections of 10 to 15 million people per year until 1967. It is a disease mentioned in ancient Egyptian papyrus scrolls around 3,700 BC and in even a metaphorical mention of it exists in the Muslim scripture, the Quran. The first three chapters trace the effect of smallpox on civilization and highlights its spread in Europe, Asia, and the Americas. It ends with the discovery of a vaccine by Edward Jenner in 1796.

The author then lays out the contributions of American Dr. Donald Henderson, originally from the Centers for Disease Control (CDC). He was tasked to join the World Health Organization (WHO) in an effort to eradicate this disease. Readers will learn how the Cold War led to a humanitarian battle for hearts and minds, with the U.S. and Soviets warming up to the idea of eradication by 1966 as a means of influencing Third World politics. The rivalry led to an ironic cooperation of labs, scientists, and funds to make smallpox extinct. One could argue that this was one of the few tangible humanitarian benefits of the Cold War. In 1971, a Soviet medical delegation criticized U.S. involvement in Vietnam and in the same sentence touted increases in Moscow's contributions to the eradication of smallpox. Competition for worldwide public health programs between the superpowers was fierce.

By 1980, the WHO voted to end vaccination against smallpox, claiming that it has conquered the disease. However, as humankind stemmed this killer, the Soviets developed programs creating tons of lethal strains of smallpox for military use. Although both Ameri-

can and British intelligence suspected Moscow of violating mutual treaties banning biological weapons, it would not be confirmed for another decade.

Tucker interviewed Dr. Ken Alibek, the head of the Soviet Biological Weapons Program. Defecting in 1992, Alibek spent one year in CIA debriefings in which he blew the lid off the sophistication of the Russian biological military programs. Methods to produce smallpox in large quantities were developed by Colonels Igor Nikonov and V. V. Zezerov, incubating them in eggshells and experimenting with a dozen strains to concoct the best combination for military use. In 1959, an Indian visitor to Moscow caused a smallpox outbreak that lasted 44 days and sickened 46 people. The outbreak could have been much worse had it not been for Moscow health officials who vaccinated all 6.6 million Moscow residents over a 3-week period. The strain of smallpox was considered so virulent that military scientists went to the subcontinent in order to extract what the Russians would label India-1967. This particular strain had a 30 percent lethality rate and was highly stable in aerosol form. Renamed India-1, it would be the bio-weapon of choice for those military planners wishing to deploy smallpox in battle. Many declassified secrets of the Soviet biological warfare program are revealed in this book.

The final chapters deal with President Clinton's fixation on coping with the threat of bio-terrorism and the fascinating national security debate on the costs of vaccinating every American. Another discussion focuses on disposing of the last remnants of smallpox strains stored in the CDC for study. Members of Navy medicine will find this slim volume about the effects of one disease on public policy and national security an important read, particularly with today's emphasis on biological warfare defense. □

—LT Aboul-Enein is studying at the Joint Military Intelligence College in Washington DC. He is a designated Middle East Foreign Area Officer.

Book Review

Germ: Biological Weapons and America's Secret War by Judith Miller, Stephen Engelberg, and William Broad. Simon and Schuster, New York. 382 pages, 2001.

New York Times reporter Judith Miller teams up with a science writer and a veteran Pentagon correspondent to recreate events that led to a decision to vaccinate 2.4 million active and reserve units of our armed forces against anthrax in 1997. The book begins in a little known town in Oregon. The year was 1984 and The Dalles, a quiet community of 10,000 residents, was trying to make sense of a cult called the Rajneeshes. Arriving in 1981, this unassuming group attempted to take control of the town. Three years later, they waged unmitigated bio-warfare against the community, infecting 124 residents with *Salmonella Typhirium*. They spread the toxin in salad bars, restaurant foods, and even gave a local judge water laced with the bacteria.

No, this is not from a fictional novel. The FBI, Centers for Disease Control, and local Public Health officials uncovered a sophisticated lab inside the cult's health clinic in which experiments were being conducted with pathogens such as the more deadly *Salmonella typhi* and *Shigella*.

As I read the opening chapter, I tried to imagine a radical jihadist group slowly studying the eating and drinking establishments where our Sailors and Marines frequent during liberty. Over the course of several years, a few could get jobs at those eateries and slowly infect them with this pathogen. A submarine or frigate crew could be incapacitated as they recovered from bouts of diarrhea and vomiting.

Readers will also derive insight into GEN Norman Schwarzkopf's decisions as he grappled with the issue of Iraqi biological weapons during Desert Storm. Although we typically hear of anthrax and cholera in Saddam's arsenal, the book claims that Iraq has weaponized *staphylococcus* and *clostridium* bacteria. Within Desert Storm, there was a "Project Jumper," born to push our pharmaceutical industry to manufac-

ture vaccines quickly, before the start of hostilities. Many military medical professionals joined senior decision makers to address the problem of who among the half million troops sent to Saudi Arabia should be vaccinated, with only 140,000 doses of anthrax vaccine available.

President Clinton who was an avid reader, especially of fiction, devoured Tom Clancy's *Rainbow Six*, about a counter-terrorism group charged with thwarting Armageddon, and Patricia Cornwell's novel *Unnatural Exposure*, which dealt with mass murder using smallpox. However, one novel prompted action by the president, Richard Preston's *Cobra Event*, which is a fictional story of a scientist who creates the perfect designer doomsday germ, "brainpox." Soon, many national security officials were scrambling to read the book and answer some of the president's questions on urban bio-terrorism.

The book ends with a warning from a group of pre-eminent citizens addressing our first Defense Secretary, James Forrestal in 1949: "Plans should be prepared for the establishment of adequate laboratory and vaccine production facilities and stockpiles of essential basic medical supplies in the event the danger from enemy attack appears imminent." Although written during the formulation of Cold War strategy, it seems almost prophetic today. While serving as Disaster Preparedness Officer at Naval Hospital Great Lakes from 1999 to 2001, I found it crucially important to understand where our command fit within the Federal, State, and City of Chicago emergency response system. It took almost a year for my staff to make contact with all parties involved. However, it was well worth the effort because the command remained engaged and was able to articulate what our true capabilities and chains of command are in the event of a citywide crisis. □

—LT Aboul-Enein is studying at the Joint Military Intelligence College in Washington DC. He is a designated Middle East Foreign Area Officer.

Letter to the Editor

I read with interest the November—December 2001 issue of *Navy Medicine*. I think, however, you missed an important component of the Navy Medicine Team that responded with distinction to the attack on the Pentagon on the 11th of September. The Navy dentists along with the Navy dental technicians were among the first healthcare providers to arrive on the scene. Seven Navy dental officers and 10 Navy dental technicians are part of the triservice contingent of 21 dentists and 58 technicians assigned to the Pentagon Triservice Dental Clinic (PTDC).

Within literally minutes of the 757 hitting the west side of the Pentagon, PTDC personnel (Army, Air Force, and Navy) were treating military and civilian casualties. In fact, two dental officers, without regard to their own safety, went into the impact area and assisted in locating and removing injured personnel. It is estimated that about half the injured at the Pentagon were treated by dental personnel assigned to the triservice clinic. It is of note that the on-scene commander at the incident site was a Navy dental officer until relieved by the Arlington County, VA, Emergency Response Team.

On that horrific day, Air Force, Army, and Navy dental personnel worked side by side with our medical colleagues to expertly care for our shipmates and lived up to the motto "STEAMING TO ASSIST."

CAPT William B. Durm, DC, USN
Commanding Officer
Pentagon Triservice Dental Clinic

In the Jan-Feb 2002 issue, the article entitled "Sailing with the USS Harry S. Truman (CVN-75)" (page 3) contained a sidebar under the heading "Telemedicine." As written, some confusion arose concerning the need for chemical processing for radiographs. The sidebar is reprinted below.

Since the advent of digital radiography onboard the HST, there have been numerous advantages to this technology.

Because there is no longer a need for chemicals, past concerns with storage and cross contamination of chemistry at sea in the once needed automatic processing system have been eliminated. Also absent is the need for storage of film and patients' radiographic studies. The new technology leaves less room for error in radiographic technique. If a radiographic image is too dark or too light, one simply adjusts the contrast through the computer, eliminating the need to repeat an image because of suboptimal technique. This is advantageous in a shipboard environment, where personnel are sometimes cross-trained on basic diagnostic imaging.

The system consists of three viewing monitors strategically located in the medical department and a processing unit that electronically labels the individual

patient's information within the system. Of these three viewing stations, one is used solely for sending or transmitting radiographic studies to a shore-based facility for interpretation by a radiologist. The radiologist will interpret the study and send the results back via e-mail. This is very helpful when underway or in a foreign port. The modern imaging system also affords the physicians/providers additional information for immediate treatment of patients. Moreover, the shipboard x-ray technologist does not have to carry or mail hundreds of radiographic studies to shore for a radiologist's interpretation.

The telemedicine portion of this unit also has another feature. In the event a patient has a dermatological problem, technicians can snap a digital picture of the skin and input the data to the RADWORKS system for transmission to a shore facility for consultation by a dermatologist. Once received, the images will be reviewed, and the onboard physician contacted by phone or e-mail with a diagnosis and a course of treatment for specific or related conditions.

This system saves time and makes available new resources not used with a conventional radiographic processing system at sea or currently available at foreign military medical treatment facilities.

A Look Back

Navy Medicine 1944



President Franklin D. Roosevelt rides with FADM Chester Nimitz and VADM Ross McIntire, Navy Surgeon General, after visiting the wounded and opening a new naval hospital at Aiea Heights, HI, 10 August 1944.

Photo courtesy of LT Youssef N. Aboul-Enein, MSC, USN

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