



GulfNEWS

A bimonthly newsletter serving the interests of Gulf War veterans

DoD, RAND Release Nerve Agent Drug Study

By Barbara Goodno
Public Affairs

The Department of Defense and the RAND Corporation released recently the latest in a series of reports on the potential health issues affecting Gulf War veterans.

The review examines the safety and effectiveness of pyridostigmine bromide used during the Gulf War as a pre-treatment to protect military personnel from the nerve agent soman. The review of the scientific literature, sponsored by the Office of the Special Assistant for Gulf War Illnesses, was performed to identify hypotheses or theories that might link the drug to illnesses in Gulf War veterans and to evaluate evidence pertaining to these hypotheses.

"The purpose of this report is to examine an issue that has been of great interest to veterans. This work breaks new ground and presents a great deal of information that wasn't available to decision makers during the Gulf War," said Bernard Rostker, the Pentagon's special assistant responsible for overseeing the Defense Department's investigations of Gulf War illnesses. "It is the most thorough review of an important issue in the search for answers to Gulf War illnesses."

Pyridostigmine bromide is the only known protection against the deadly nerve agent soman, which was thought to be a serious threat during the Gulf War. DoD estimates that approximately 250,000 personnel took at least some PB.

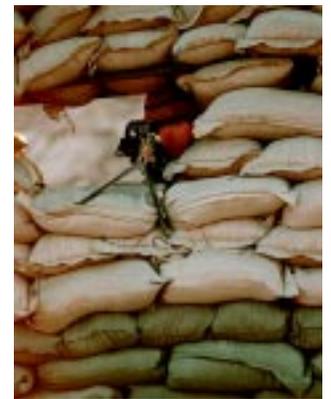
The FDA approved pyridostigmine bromide in 1955 for use in treating myasthenia gravis, a neuromuscular disease which causes

muscle weakness and fatigue. However, when FDA granted permission for use in the Gulf as a pre-treatment for the nerve agent soman, the permission was as an investigational new drug – this classification signifies that it had not been approved for general commercial marketing as a nerve agent pre-treatment.

Rostker said the decision to use the drug should be considered in an operational context. "This is the first battlefield use of pyridostigmine bromide as a pre-treatment drug. During Operation Desert Storm, the threat of the use of nerve agents by Iraq was very high. Pyridostigmine bromide was then – and still is today – the only known pre-treatment available to prevent death from exposure to the nerve agent soman."

According to Rostker, during the Gulf War if troops had been exposed to soman without the protective benefit of PB, the mortality rate of those exposed would have been nearly 100 percent within a two-minute period.

After lengthy deliberation, permission (See *PB Study*, page 3)



PV2 Daniel McCullough of Fort Stewart, Ga., stands watch at an Army checkpoint in Kuwait. U.S. Navy photo by PH2 Jeff Viano.

Researchers Advance Gulf War Illnesses Studies

By Austin Camacho
Public Affairs

The Persian Gulf Veterans Coordinating Board recently sponsored its fourth annual conference on federally-sponsored Gulf War illnesses studies, giving researchers a forum to compare notes on ideas that could help shape future efforts. This year's conference differed from earlier events in that it opened its doors to the general public, veterans and news media.

The conference, beyond serving as a chance for researchers to share study results, allowed veterans and their support groups to learn more about ongoing research and to interact directly with the physicians, scientists and government officials involved with Gulf War studies.

Additionally, the conference provided a platform for government officials to learn about Gulf War-related research effecting future deployment policies and it provided a chance for physicians to hear the latest diagnosis and treatment practices for veterans' illnesses.

About 300 people attended the three-day conference. Roughly 60 percent represented researchers. The remaining attendees included government scientists, contractors and Departments of Defense and Veterans Affairs' physicians. Several veterans also in attendance represented a variety of service organizations.

Dr. Kelley Brix a member of the medical outreach and issues directorate from the Gulf War illnesses office and a participating researcher, says the conference opened with

two excellent speeches about chronic fatigue and other syndromes that are diagnosed solely on symptoms.

"The major points," Brix says, "were that these diagnoses are difficult to make. The diagnoses are complex because of overlap with many other medical conditions. Research on them is difficult, and appropriate treatment is uncertain or unproven."

Attendees also received progress reports on several National Academy of Sciences projects. One, a long-term examination of the health effects of demolitions at Khamisiyah, is scheduled for completion late in the year 2000 while an Army-funded study of six chemical warfare agents is expected out in the next few months.

A representative of the Centers for Disease Control and Prevention discussed Atlanta's March 1999 conference on possible chemical exposures of Gulf War veterans and announced the posting of a (See *Conference*, page 4)

"Diagnoses are complex because of overlap with many other medical conditions."

**—Dr. Kelley Brix
Medical Issues Team**

*From the desk of
Bernard D. Rostker
Special Assistant for
Gulf War Illnesses*



Recently, my office and the RAND Corporation released the results of a scientific literature review of pyridostigmine bromide, the pre-treatment drug used during the Gulf War for exposure to the nerve agent soman.

The RAND paper examines the safety and effectiveness of pyridostigmine bromide (PB) used during the Gulf War as a pretreatment to protect military personnel from the nerve agent soman. The work was performed to identify hypotheses or theories that might link PB to illnesses in Gulf War veterans.

According to the paper, "Two major conclusions emerge from this review of the scientific literature, one pertaining to the safety and one to the effectiveness of PB."

Although medical research has not established PB as a cause of Gulf War illnesses, it "cannot be ruled out as a possible contributor to the development of unexplained or undiagnosed illnesses in some PGW veterans." The paper goes on to say that "uncertainties remain concerning the effectiveness of PB in protection of humans against nerve agents."

We believe this is an important work. It breaks new ground and presents a great deal of information that wasn't available to decision makers during the Gulf War. It is a most thorough review of an important issue in the search for answers to Gulf War illnesses. I believe this information will be invaluable both to Gulf War veterans and in the continued research on PB. The next step is to forward this work to the Institute of Medicine which will take this further as part of its charter to review and assess all information related to health concerns of our veterans.

This paper, as well as the other RAND reports on military use of drugs, oil well fires, stress and depleted uranium, is posted on GulfLINK. If you have any comment or questions about this report, please let me know at brostker@gwillness.osd.mil. Your opinion matters.

VA Establishes New Advisory Committee

By Lisa Gates
Public Affairs

As part of an ongoing commitment to veterans of the Persian Gulf War, the Department of Veterans Affairs recently established a new advisory committee. Togo D. West, secretary of veterans affairs, signed a charter on July 19, establishing the Research Advisory Committee on Gulf War Veterans' Illnesses. The establishment of this committee is in response to the Veterans Programs Enhancement Act of 1998.

"This is an attempt to make sure the concerns and questions of veterans are considered for the research agenda for the future," said Army Col. Frank O'Donnell, M.D., director of medical outreach and issues for the office of the special assistant for Gulf War illnesses. "The new research committee will include veterans in its membership as well as other non-government individuals."

Nominations for the committee's chairperson and membership have poured in since the VA solicited recommendations from the heads of the Department of Defense and Veterans Service Organizations.

The VA is seeking qualified non-government members to serve on the advisory committee and its subcommittees. The committee will address research issues related

to Gulf War veterans' illnesses.

"This is certainly a good opportunity to empower veterans in a formal way so that they have input into the research agenda," said O'Donnell. "The advisory committee will serve a dual purpose. It is an avenue through which veterans groups gain better insight into the process and how research agenda is set."

Ultimately, the selection of the chairperson and its 15 committee members—which is expected to be announced in the next few weeks—will be approved by the Secretary of Veterans Affairs.

The committee aim is to provide advice on proposed research, plans or studies relating to the health consequences of military service in Southwest Asia and during the Gulf War. Additionally, the committee will work closely with the Persian Gulf Veterans Coordinating Board's Research Working Group that provides guidance and coordination for current research sponsored by the Departments of Defense, Veterans Affairs and Health and Human Services.

Currently, the federal government has more than 145 completed or ongoing research projects in search of causes and treatments for Gulf War illnesses. These projects cover a broad range of subjects, from basic research to larger, more in-depth studies focused on veterans' symptoms.



Veteran Spotlight: *Field Sanitation Teams*

By Diana Berardocco
Public Affairs

The special assistant's office is asking U.S. Army Gulf War veterans who served as field sanitation team members during the war to provide eyewitness accounting of potential environmental exposures. Investigators are seeking information from troops who served in Operations Desert Shield and Storm in a search for potential linkages between environmental exposures and the illnesses that some veterans are experiencing.

"We really don't know a lot about what the Army field sanitation teams did and what they saw during the war. Their observations could have an impact on a variety of investigations," says a member of the environmental occupational exposure division.

Aside from hostile fire, the principal threats to force readiness are naturally occurring diseases and illnesses caused by environmental exposures. For example, hot and cold weather injuries, insects, pesticides, unpurified water, and other potentially hazardous elements in a deployment area can be real threats. The responsibility to minimize those threats rests with the unit commander.

A field sanitation team's key responsibility is to advise and assist the unit commander in

reducing unit disease and non-battle injury. Ultimately, the success or failure of a military operation can rest upon effective preventive medicine measures within operational units.

"The field sanitation team becomes the eyes and ears of the commander," said Army Col. Frank O'Donnell, M.D., director of medical outreach and issues.

"The team's attentiveness to the water and food supply, waste disposal and insect control is important to the mission because it impacts the effectiveness of the unit," he said.

Investigators in the Gulf War illnesses environmental division have had difficulty in obtaining feedback from field sanitation personnel because this function is normally an additional duty and cannot be identified by occupational specialty codes. They request individuals call the special assistant's office toll-free number at (800) 497-6261 to report their observations. Topics under investigation include food-service sanitation, water supplies, waste disposal practices, control of insects and medical threats associated with weather.

The Defense Department expects to use many of the findings and lessons learned from the Gulf War to implement changes to future DoD policy and doctrine that will increase readiness and improve service members' survivability in future deployments.

Medical Records Experts Return to St. Louis

Recently Located Files Can Include up to 7,000 More Gulf War Inpatient Records

By Todd Stevens
Public Affairs

A team of medical issues experts will return to the National Personnel Records Center in St. Louis in October to recover additional Gulf War inpatient records. Since their initial visit, team members from the Office of the Special Assistant for Gulf War Illnesses have located and catalogued more than 25,000 inpatient records from Operations Desert Shield and Storm.

In early October, a three-member team will travel to the records center where all military hospital records are eventually gathered, categorized and stored. This two-week long record search, like the previous two trips, will focus on documents that recently arrived at the records center or that have recently been indexed there. Records include medevac histories and other hospitalization and clinic records which might help veterans file service-related claims with the Department of Veterans Affairs.

"This is the last known group of Desert Shield and Storm records," said Mike Boyle, medical issues team leader with the special assistant's office. "We will look over records that the Air Force recently located at Langley. We'll also review records from

aircraft carriers and an Army hospital in Heidelberg, Germany."

The scope of the review focuses on 150 cubic feet of stored records which can include up to 7,000 previously unchecked files. From these files, the team expects to add approximately 300 more records to the current database.

Inpatient records are first categorized by hospital, then by servicemember's social security number, and can make locating specific patient records difficult. It takes effort and coordination to literally examine and inventory every record, said Boyle.

Unlike individual medical records, which are sent to the Department of Veterans Affairs when a servicemember retires or separates from service, hospitalization and medevac records are retained at the treating or transferring facility. Later, these records are forwarded to the NPRC in St. Louis – typically within five years but even that is dependent on the service's records disposition policies. Occasionally, additional files are located well after a typical archiving schedule.

"After our last visit, we asked the services to look again. The Air Force was able to locate these additional boxes and forwarded them to St. Louis," said Boyle.

In addition to these records, approximately 200 others already in the database needed updating, Boyle said. Team

members from the special assistant's office found entries that listed wrong social security numbers or names. This misidentification could have prevented the team from helping a servicemember locate his or her record.

"We continue to review our database and correct it. We are also contemplating other data collection, capture and coding projects," he said.

Veterans seeking help in locating Gulf War inpatient records should call the direct hotline for Gulf War veterans at (800) 497-6261. A medical records information paper and details on previous efforts to locate records is available on the GulfLINK web site at www.gulflink.osd.mil.



Mike Boyle (right, front) and Reserve volunteers review and inventory Gulf War hospital records at the National Personnel Records Center in St. Louis, Missouri. DoD photo.

(PB Study from page 1) to use the drug was granted by the FDA in 1990. In conjunction with this approval, the Defense Department agreed to some special requirements, including special labeling, record keeping, and the provision of information "to medical and paramedical personnel, and to individual service members for ... products intended for self-administration." Actual implementation was inconsistent, record keeping inadequate, and information – prepared for distribution to the troops – not delivered. These inconsistencies have fueled veterans' concerns, Rostker said.

"Very early on, some veterans have cited PB as a possible source for their illnesses," he said. "And in response, a number of research projects through the Research Working Group of the Persian Gulf War Coordinating Board – the Departments of Defense, Health and Human Services and Veterans Affairs – were initiated. About half of these studies are complete. In light of the on-going work, we believed that a scientific review of the literature was needed to synthesize the body of knowledge into a single source that can be used as a foundation for work."

The nearly 400-page RAND report details seven hypotheses, providing extensive data on each. With regard to the possible link between PB use and Gulf War illnesses, the author, Dr. Beatrice Golomb, believes many questions remain unanswered and calls for further research. The effectiveness of PB in guarding against the effects of soman is unclear, says Golomb. She suggests that the Defense Department's decision to use the pre-treatment drug in the future should be carefully weighed.

"The DoD must always balance the risks of war, to include the

potential for use of deadly nerve agents such as soman with the possible side effects from drugs such as PB," Rostker said. "Currently, PB is thought to be an essential part of the medical protection our troops have for soman, which is extremely lethal. However, PB does have known short-term side effects and we need to continue our efforts to protect our troops against deadly nerve agents."

The Defense Department will forward this report to the Institute of Medicine, to further their work related to Gulf War veterans' health concerns. As part of their charter, the Institute was charged to review the scientific and medical literature regarding adverse health effects associated with exposures during the Gulf War. The review will include recommendations for additional scientific studies to resolve areas of continued scientific uncertainties related to the health consequences of Gulf War service. Pyridostigmine bromide is one of the issues the Institute will review, Rostker said.

Any veteran with health concerns should contact the DoD's Comprehensive Clinical Evaluation Program or the VA's Persian Gulf Registry to schedule an exam. Both programs offer a comprehensive clinical evaluation. To schedule an exam, veterans should contact the CCEP at (800) 796-9699 or the VA's Registry at (800) 749-8387.

RAND is a non-profit institution with a long history of independent research. This paper, as well as the RAND literature reviews on stress, depleted uranium, and oil well fires, and a comprehensive review of Military Use of Drugs Not Yet Approved by the FDA for Chemical Warfare/Biological Warfare Defense is posted on the GulfLINK web site at www.gulflink.osd.mil.

Resources for Veterans

Your ticket to the information highway — visit our GulfLINK web site at:
<http://www.gulfink.osd.mil>

Are you a Gulf War veteran (or know of one) with health concerns? Call the CCEP at:
1-800-796-9699

Anyone with information on Gulf War incidents should call the DoD Incident Reporting Line at:
1-800-472-6719

Gulf War veterans seeking information on VA benefits of all types should call the Persian Gulf Helpline at:
1-800-749-8387

(*Conference* from page 1) transcript of that conference on their web site at www.cdc.gov.

Brix says other noteworthy sessions included the VA report on two DoD-cooperative clinical trials — exercise/behavioral therapy and antibiotic treatment — and a presentation by Rear Adm. Michael Cowan, chief of staff to the assistant secretary of defense for health affairs, on force health protection. Force health protection, in part, involves defending future combat troops from dangers to which previous war veterans were exposed.

“Admiral Cowan talked about the ‘terror’ DoD planners have for the potential use of chemical and biological weapons by terrorists,” Brix said, “in particular, the use of anthrax.”

She said he gave in-depth information about the anthrax vaccine program as one lesson DoD was learning from the Gulf War

experience when a lack of accurate information about the vaccines caused fear and confusion that continues to the present.

Other results of lessons learned include improvement of protective gear and expansion of environmental monitoring.

The second day of the conference concluded with a veterans’ roundtable discussion. Nine scientists from various private and government organizations met with more than 30 veterans. Seven veterans’ service organizations also sent official representatives.

“This session was scheduled to provide veterans with an opportunity to state their recommendations for research to a panel of VSO representatives and scientists,” Brix said.

On the final day of the conference, Dr. Susan Mather, chief officer of the VA’s public health and environmental hazards office, presented an overview of the Baltimore VA medical center’s depleted uranium program. The program monitors the health of Gulf War veterans who have, or previously had, depleted uranium fragments in their bodies as a result of combat-related injuries. She also described the expanded DoD and VA medical evaluation program, which has examined more than 125 veterans for potential exposure to depleted uranium.

Included in the final day, an overview of British veterans’ concerns presented by Col. John Graham, British liaison for Gulf War illnesses, revealed an accounting of various concerns. Like their American counterparts, some British soldiers also



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are apprehensive about the effects of pyridostigmine bromide, depleted uranium, oil well fires and post traumatic stress disorder.

Brix says conference organizers recognize that this type of international coordination and exchange between researchers, physicians and government officials plays an important role in finding the causes, and more importantly, possible treatments for undiagnosed illnesses of Gulf War veterans.

Since 1994, there have been more than 145 federally-funded research projects on Gulf War illnesses, exceeding \$160 million in funding. Their Annual Report to Congress for 1998 contains summaries of most of the 145 current and previously completed projects.



Soldiers crawl under barbed wire as smoke, representing chemical warfare agent, envelopes them during training. U.S. Navy photo by PH1 Clay Farrington.

Agencies assisting Gulf War veterans:

<http://www.afa.org/>
Air Force Association
1501 Lee Highway
Arlington, VA 22209-1198

<http://www.legion.org/building.htm>
American Legion
1608 K St., NW
Washington, DC 20006

<http://www.amvets.org/>
AMVETS
4647 Forbes Blvd.
Lanham, MD 20706

<http://www.ausa.org/>
Association of the U.S. Army
2425 Wilson Blvd.
Arlington, VA 22201

<http://www.dav.org/index.html>
Disabled American Veterans
807 Maine St., SW
Washington, DC

<http://www.eangus.org/>
Enlisted Association of the National Guard
1219 Prince St.
Alexandria, VA 22314

<http://www.fra.org/>
Fleet Reserve Association
125 N. West St.
Alexandria, VA 22314-2754

<http://www.mcleague.org/>
Marine Corps League
8626 Lee Highway, #201
Merrifield, VA 22031

<http://www.ngaus.org/>
National Guard Assn of the US
1 Massachusetts Ave., NW
Washington, DC 20001

<http://www.navy-reserve.org/index.html>
Naval Reserve Association
1619 King St.
Alexandria, VA 22314-2793

<http://www.navyleague.org/>
Navy League
2300 Wilson Blvd.
Arlington, VA 22201

<http://www.ncoausa.org/>
Non Commissioned Officers Association
225 N. Washington St.
Alexandria, VA 22314

<http://www.roa.org/>
Reserve Officers Association
1 Constitution Ave., NE
Washington, DC 20002

<http://www.troa.org/>
Retired Officers Association
201 N. Washington St.
Alexandria, VA 22314

<http://www.vfw.org/>
Veterans of Foreign Wars
200 Maryland Ave., NE
Washington, DC 20002

<http://www.vva.org/>
Vietnam Veterans of America
1224 M St., NW
Washington, DC 20005