



# VA Research Currents

## VA clinical trial finds therapies helpful for Gulf War illnesses

**R**esearchers from VA and the Department of Defense (DoD) found that cognitive behavioral therapy (CBT) and aerobic exercise improve some symptoms of Gulf War veterans with undiagnosed illnesses.

Reporting in the March 19 issue of the *Journal of the American Medical Association*, the scientists said exercise and CBT, which teaches techniques for managing symptoms, provide modest but significant improvement in physical functioning, mental health functioning, cognitive symptoms, fatigue, and distress.

An accompanying editorial in the journal described the study as “a remarkable achievement” and noted it

was one of the largest trials of psychological treatment ever published.

The results were immediately disseminated to the some 200 physicians in the VA health system who focus on treating Gulf War illnesses.

The \$9.6 million study, conducted between 1999 and late 2001, involved 1,092 veterans at 18 VA and two DoD medical centers. Participants—Gulf War veterans with fatigue, musculoskeletal pain or memory and thinking problems—were randomly assigned to one of four 12-week treatment courses. All groups continued their usual health care. In addition to usual care, three groups received CBT, aerobic exercise or a combination of the two therapies.

Among the findings:

- CBT, with or without aerobic exercise, led to modest but significant improvement in physical functioning.
- CBT, with or without exercise, improved mental health functioning and cognitive symptoms.
- Aerobic exercise, with or without CBT, improved mental health functioning, cognitive symptoms, fatigue and distress.

Neither CBT nor exercise improved pain symptoms.

The study was conducted through VA’s Cooperative Studies Program. ■

*Update from the Office of Research and Development...*

## VA’s flu prevention effort is fine example of research guiding practice

By Nelda P. Wray, MD, MPH, *Chief Research and Development Officer*

On April 3, many newspapers across the country—including the *Washington Post* and *New York Times*—reported on research published that day in the *New England Journal of Medicine*. The study, led by Dr. Kristin L. Nichol of the Minneapolis VA Medical Center and the University of Minnesota, found that influenza vaccination not only helps prevent the flu in older people, but substantially reduces their risk of heart disease and stroke, and of death from any cause during flu season.

The findings were striking in this retrospective study: In the 1999 – 2000 flu season, when nearly 60 percent of the study’s 146,328 subjects were immunized, the immunized group had a 50 percent lower risk of dying from any cause during the season. Those who were immunized reduced their

risk of hospitalization for cardiac disease by 19 percent; for cerebrovascular disease by 23 percent; and for pneumonia or influenza by 29 percent. Similar results were found for a cohort of 140,055 older adults in the 1998 – 1999 flu season.

This is a success story for VA on many levels. First, it is always good to have positive coverage of VA research in the press. It is important for veterans, taxpayers, legislators, and all Americans to know about the excellent and vital work we are doing. The recognition is well-deserved for Dr. Nichol, who has conducted extensive studies on the economic and health benefits of flu immunizations and testified before Congress on this topic.

## Cereal fiber may cut seniors' heart risk

**A** study tracking more than 3,500 older people for nearly a decade found the lowest incidence of stroke and heart attack among those who ate the most whole grains, bran and other sources of cereal fiber. While doctors have long advised people to boost their fiber intake, this study, reported in the April 2 *Journal of the American Medical Association*, is among the first to focus on fiber's benefits for those age 65 and older.

Lead author Dariush Mozaffarian, MD, of the VA Puget Sound Health Care System, said the findings support American Heart Association guidelines of 25 to 30 grams of fiber daily and underscore their importance for older adults. He said the findings challenge assumptions that diet in later life plays less of a role in protecting against heart disease. Just as it's never too late to quit smoking, the same might apply to eating fiber.

"We found that that dietary habits may affect cardiovascular risk beyond young adulthood and middle age, when disease has often already developed," said Mozaffarian.

The study also adds to an emerging body of research pointing to potentially unique cardiovascular benefits of cereal fiber, compared to fruit and vegetable fiber. In the study, those who

ate the most cereal fiber were 21 percent less likely than those with the least cereal fiber in their diet to suffer cardiovascular disease. Fruit and vegetable fiber had little effect in warding off heart attack or stroke.

"I don't think these findings suggest we should change the major recommendations [for 25 to 30 grams of fiber daily]," said Mozaffarian. "But all other things being equal, people should try to get their fiber from whole grains and cereals." He added that fruits and vegetables may provide other health benefits, aside from their fiber content.

The study, originally presented at an American Heart Association conference last year, was part of the larger National Heart, Lung and Blood Institute-funded Cardiovascular Health Study, designed to identify risk factors for heart disease and stroke in older adults.

National Hotline Conference Call schedule:

[http://vawww.va.gov/resdev/fr/call\\_calendar.cfm](http://vawww.va.gov/resdev/fr/call_calendar.cfm)

FLU (cont. from pg. 1)

If we look "behind the scenes" of this story, we find another reason for VA to be proud of its success. Between 1997 and 2000, VA raised its influenza vaccination rate from 61 to 78 percent. This effort to boost vaccine rates in our clinics, in response to numerous studies documenting vaccination as a cost-effective way to improve health care, is in itself a noteworthy accomplishment on behalf of the veterans we serve.

However, when we consider the 60-percent vaccination rate for 1999 – 2000 among the community-dwelling seniors in Dr. Nichol's study—all enrolled in managed care plans—it becomes clear that VA's health system is ahead of the curve in providing high-quality, evidence-based preventive care to its patients.

Our congratulations to Dr. Nichol and her colleagues on an outstanding piece of research. Let this study and others like it serve as guideposts as we progress toward the fulfillment of our vision: "Today's VA Research Leading Tomorrow's Health Care." ■

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## 'Helping journalists get it right'

Your study yielding important new insights on a common health problem is appearing in a major journal. A reporter from a national magazine is calling to interview you. What can you do to ensure your findings are reported accurately and in context?

One of the best things you can do is to stay focused on your message, says VA psychologist Polly Hitchcock Noel, PhD. "Be prepared to get across the key points," she advises. "Have your message pre-planned, prepared, so you can be very consistent."

Noel, associate director of the Veterans Evidence-based Research, Dissemination, and Implementation Center at the San Antonio VA Medical Center, is coauthor of an article titled "Helping Journalists Get it Right" in the February *Journal of General Internal Medicine*. Her collaborators

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## Recent publications

“The Chromogranin-Secretogranin Family.” Laurent Taupenot, PhD; Kimberly L. Harper, MD; Daniel T. O’Connor, MD. **San Diego.** *New England Journal of Medicine*, March 20, 2003.

“Computerized Health Information and the Demand for Health Care.” Todd H. Wagner, PhD. **Palo Alto.** *Value in Health: The Journal of the International Society for Pharmacoeconomics and Outcomes Research*, Jan. – Feb. 2003.

“Cost-Effectiveness of a Primary Care Intervention for Depressed Females.” Jeffrey M. Pyne, MD; John Fortney, PhD. **Little Rock.** *Journal of Affective Disorders*, March 2003.

“Diarrhea or Colorectal Cancer: Can Bacterial Toxins Serve as a Treatment for Colon Cancer?” Stephen L. Carrithers, PhD. **Lexington.** *Proceedings of the National Academy of Sciences*, March 24, 2003.

“Effectiveness of Collaborative Care Depression Treatment in Veterans Affairs Primary Care.” Chuan-Fen Liu, PhD; Susan C. Hedrick, PhD; Edmund F. Chaney, PhD; Bradford Felker, MD; Nicole Hasenberg, MPH; Stephan Fihn, MD. **Puget Sound.** *Journal of General Internal Medicine*, Jan. 2003.

“Is Specialty Care Associated with Improved Survival of Patients with Congestive Heart Failure?” Cynthia Coffman, PhD; Eugene Z. Oddone, MD, MHS. **Durham.** *American Heart Journal*, Feb. 2003.

“Outcomes at 1 and 5 Years for Older Patients with Alcohol Use Disorders.” Sonne P. Lemke, PhD; Rudolf Moos, PhD. **Palo Alto.** *Journal of Substance Abuse Treatment*, Jan. 2003.

“Short-Term, Intermediate-Term, and Long-Term Mortality in Patients Hospitalized for Stroke.” Tracie C. Collins, MD, MPH; Nancy J. Petersen, PhD; Terri J. Menke, PhD; Julianne Soucek, PhD; Wednesday Foster, MPH; Carol M. Ashton, MD, MPH. **Houston.** *Journal of Clinical Epidemiology*, Jan. 2003.

“Should We Be Worried About High Real Medical Spending Growth in the United States?” Mark V. Pauly, PhD. **Philadelphia.** *Health Affairs Web Exclusive*, Jan. 8, 2003.

“What Matters Most to Seriously Ill Older Persons Making End-of-Life Treatment Decisions? A Qualitative Study.” Terri R. Fried, MD. **West Haven** (Conn.) *Journal of Palliative Care*, April 2003.

## Epidemiology, Biostatistics Summer Session

VA’s Epidemiologic and Information Centers (ERICs) and the University of Washington Departments of Epidemiology and Biostatistics will host the Fifth Annual Epidemiology and Biostatistics Summer Session from June 23 to 27, 2003, at the University of Washington in Seattle. For details or a registration packet, log on to the Seattle ERIC website at [http://www.eric.seattle.med.va.gov/education/summer\\_courses.html](http://www.eric.seattle.med.va.gov/education/summer_courses.html); or send e-mail to [carrie.mccloud@med.va.gov](mailto:carrie.mccloud@med.va.gov).

## San Diego study sheds light on HIV mutation process

A VA-led team has provided the first detailed look at how human antibodies may actually drive human immunodeficiency virus (HIV) to mutate and escape detection by the immune system. The findings, reported online March 18 in the *Proceedings of the National Academy of Sciences*, may be key in efforts to develop an effective AIDS vaccine. So far, scientists have been unable to design a vaccine that induces antibodies capable of neutralizing the rapidly mutating virus.

A team led by Douglas D. Richman, MD, of the VA San Diego Healthcare System, found that patients infected with HIV rapidly develop a strong antibody response against the virus. But the same antibodies tasked with recognizing and disabling the germ appear to force its ongoing evolution into new strains that dance around the antibody response and continue to replicate.

The researchers cloned virus from the blood of HIV patients and combined it with a gene that makes luciferase, the light-emitting enzyme found in fireflies. The enzyme helped the scientists track virus replication. The genetically engineered virus from each patient was incubated with antibody-containing plasma from the same patient. This procedure was repeated periodically so the researchers could test antibodies from different times against virus from different times. Most patients developed a high concentration of antibodies to HIV within a few months. The antibodies continually evolved in their ability to recognize different protein shapes on the outer coating of the virus. However the virus consistently evolved faster than the antibody response, developing new protein structures on its surface, so antibodies from previous months’ samples were ineffective in neutralizing new virus from the same patient. ■

## 'Physician's guide to improving health care reporting' (cont. from pg. 2)

include lead author Karen Stamm, a former broadcast journalist and public relations officer; *USA Today* medical reporter Rita Rubin; and VA physician-researcher John Williams, MD. Their article provides a comprehensive guide for researchers on improving health care reporting.

In addressing the fundamental question of why researchers should cooperate with journalists in the first place, the authors cite research showing that most people, including physicians and scientists, learn about medical developments from television and print-media reports. They say it is in doctors' best interest to help ensure that accurate information flows from the press. In one case mentioned in the paper, journalists covering a presentation at the 1995 American Heart Association meeting reported that people taking calcium channel blockers might increase their heart attack risk by 60 percent. The journalists had not interviewed other scientists for a balanced view of the findings. As a result of their news stories, some

patients stopped taking their medication, without consulting their doctors.

The article also provides a plethora of helpful tips on almost every detail of communicating with the press: preparing news releases, explaining numerical data to reporters, handling interviews. When providing a television interview, for example, avoid sitting in a chair that swivels, and plan the background carefully.

Concerning how to talk with reporters, the authors say you should "talk to the reporter the way you would talk to a neighbor who knows little about your field, or to an intelligent eighth-grader." In fact, only about 17 percent of medical reporters have advanced degrees in science.

Above all, the article urges researchers to view news reporters as collaborators, not antagonists. The goal is to work together to help inform patients, taxpayers, funders, policymakers and others who have a stake in the research. In fact, Noel sympathizes with report-

ers, who she says have a tough job in trying to accurately convey the gist of a complex study in limited space.

"One basic problem is that the typical scientific article is much longer than the typical newspaper article," she says. As a result, reporters are often not able to include the subtler aspects of the findings or limitations of the study that would typically be found in a scientific article. "Even if they do have a background or training in science, and they do understand the findings, they're still struggling with that basic limitation of space."

For a copy of the journal article, contact Noel at [noelp@uthscsa.edu](mailto:noelp@uthscsa.edu). ■

### Lab security

The recently updated policy directive detailing the roles of research administrators and individual investigators in ensuring biomedical lab security can be found at [www.va.gov/resdev/directive/HAZMAT-Directive-revised1.doc](http://www.va.gov/resdev/directive/HAZMAT-Directive-revised1.doc).

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