



VA Research Currents

Field-based websites switching to 'va.gov'

The Office of Research and Development has been working with field-based VA research websites to transition them to the "va.gov" domain. The initiative is part of an ongoing, overall VA effort to ensure compliance with federal policies and guidelines for websites.

"One of the key issues is to make sure that when people go to a site, they can easily and immediately tell that it's a government-agency website," said Charles Festel, who manages Web projects for VA research.

Festel said there are close to 90 individual research centers, programs or services within VA that have their own websites. Up until recently, about a third were not using the "va.gov" domain name. Most of these had a site

hosted by their university affiliate. Now, after an outreach effort spearheaded by Festel and Dr. Reuben Wright of the Research Communications office, almost all the sites have switched over to the va.gov domain or have begun the process. "Almost everyone is totally on-board with this," said Festel. "They understand why it's important."

Most of the new sites are hosted through VA's Web Operations service, which also provides technical support to smooth the transition.

The switch entails more than changing servers and adopting a URL that ends in "va.gov." Webmasters also have to make sure their sites comply with a host of other VA and

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Robot-aided stroke therapy to be tested in clinical trial

A robot that therapeutically helps stroke patients move their affected upper limbs will take center stage in a new VA clinical trial involving up to 160 patients at four medical centers.

The trial, set to begin recruiting by mid-2006, is the first to be jointly funded between VA Rehabilitation Research and Development (RR&D) and the Cooperative Studies Program (CSP). According to CSP assistant director Grant Huang, MPH, PhD, "The trial exemplifies how ORD is looking to combine the expertise and resources among

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Update from Clinical Science Research and Development...

Providing the evidence base: Clinical research and the future of medical care

By Timothy J. O'Leary, MD, PhD, acting director

The July 18, 2005, issue of *U.S. News & World Report*, highlighting "America's Best Hospitals," praised VA medical care, attributing its excellence to the "constant examination of the processes and procedures that go into caregiving systems. ..."

The basis for determining what care should be given is the result of clinical research. Such research provides the pathways by which we learn how to best treat patients and how to keep healthy people from becoming sick. Without an effective clinical research enterprise, neither the insights gained by basic scientists, nor the observations of clinicians, can become the standard of practice for medical care.

VA research has provided the model by which clinical evaluation of proposed interventions is accomplished worldwide. The large-scale randomized clinical trials methods pioneered by VA have provided important evidence to help shape medical practice and led to better treatments across a range of illnesses and disorders affecting tens of millions of Americans.

In spite of these successes, challenges remain. There is a growing demand by the public for quickening the rate at which advances in basic research lead to better treatment. Clinicians are frustrated by the time demands required to learn research methods, participate in research, and keep

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federal regulations and guidelines, as contained in VA Handbook 6102 on Internet and Intranet Services. A newly revised edition of the manual will soon be available on the VA Intranet at <http://vaww.va.gov/6102>.

Kristen Wing, webmaster and dissemination specialist for VA's Rehabilitation Outcomes Research Center in Gainesville, Fla. (www.va.gov/rorc), switched her site to va.gov this spring. The move involved some redesign to comply with Section 508 of the Rehabilitation Act, which mandates that federal websites be user-friendly for those with disabilities. Wing keeps up on all the regulations by participating in various listservs for VA webmasters. She also takes part in a monthly conference call. "It's webmasters helping webmasters," she said.

Among the advantages of the reworked site, said Wing, is the brevity of the new URL. "As a marketing person, I'm always trying to think, 'What is the URL I can give to people that is shortest and easiest to remember?' And www.va.gov/rorc seemed to fit the bill."

The theory appears to have paid off: Among other indicators of success, internal traffic to the RORC site has increased with the new domain. "Our own investigators are on the site a lot

more, which has cut down on some of the work for our administrative core," said Wing. Also, the Google ranking for the site has improved significantly—thanks in large part, believes the RORC webmaster, to the va.gov links to and from her site. "I can put in just about any of our investigator's names into Google, and our site comes up first," she said.

For more information about transitioning a VA research website to the va.gov domain, contact Charles Festel at 857-364-2174 or charles.festel@va.gov.

New email address for publication notifications

As of Sept. 1, 2005, there will be a new email address that researchers or research offices should use to notify Research Communications of upcoming publications or presentations. If you're using VA's Outlook system, search the Global Address List for VHA CO 12 Publication/Presentation Notifications. If you're emailing from outside the VA system, the address is vhaco12pubnot.vhaco12pubnot@va.gov. (For convenience, save the address in your Contacts folder with the display name VHA CO 12 Publication/Presentation Notifications.)

Include the article or abstract title, along with an electronic copy of the abstract, manuscript or poster; investigators' full names and degrees; and the journal or meeting title and date. A brief lay summary of the findings should be included as well.

New URL for Bedford center

In last month's issue, an out-of-date URL was given for the Bedford, Mass.-based Center for Health Quality, Outcomes and Economic Research. The new website address is: <http://www.va.gov/chqoer>.

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up with an increasing volume of literature. Medical research has, through numerous successes, generated very high expectations. Our ability to translate new insights into proven treatments is not keeping up.

CSR&D is addressing this challenge on several fronts:

- The Cooperative Studies Program (CSP) is developing mechanisms to assist in the design of small investigations that can pave the way for larger, more definitive trials.
- CSP Coordinating Centers are developing new systems to improve data exchange.
- Work is under way to ensure that clinical trials meet their patient-recruitment timelines and targeted completion dates.
- Clinical trials registration requirements will make certain that the public can have access to information on the types of research being supported.
- Clinical trials methodologists are improving statistical procedures and developing innovative approaches to clinical trial design and implementation.
- Training programs for clinicians will result in an increased base of trained scientists.
- Central Office staff are working to address issues related to intellectual property rights and to facilitate appropriate collaborative ventures with industry and the NIH.

These measures, and others that will result from the creative energies of our clinical investigators, will allow VA to create an increasingly innovative clinical research enterprise. Such an enterprise is essential for VA to implement today the medical practices that everyone else will adopt in the future. ■

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Virtual colonoscopy shows cancer beyond colon

Computed tomographic colonography, or virtual colonoscopy, can be used to diagnose significant medical problems in organs outside the colon, report VA investigators and colleagues in the August issue of *Radiology*.

In a study at the San Francisco VA Medical Center, 45 of 500 virtual colonoscopy patients, or nine percent, were found to have clinically important extra-colonic findings, ranging from kidney cancers to abdominal aortic aneurysms. In 35 of the patients—seven percent—these serious medical problems had not been previously diagnosed.

“That’s a fairly large percentage,” said principal investigator Judy Yee, MD, chief of radiology at the San Francisco VAMC. “Depending on the patient population you look at, this finding suggests it may be more common to find something significant outside the colon than in the colon with this technique, because there is more likely to be a problem outside the colon.”

Virtual colonoscopy uses a CT scanner, which generates a three-dimensional image from a series of two-dimensional X-rays. It is less invasive than conventional colonoscopy, although many gastroenterologists prefer the latter because it enables them to remove potentially cancerous polyps during the same procedure.

“Essentially, we’re performing a CT scan of the entire abdomen and pelvis,” said Yee, who is also associate professor and vice-chair of radiology at the University of California, San Francisco. “This allows us to look at all the solid organs,” including the liver, kidneys, pancreas, spleen, gall bladder, adrenal glands, and bladder, plus the lower part of the lungs. In men, the scan includes the prostate; in women, the uterus and ovaries. Yee added: “Typically, these patients are not symptomatic for their extra-colonic lesion—that’s not what brought them in for a CT scan. They’re often at an earlier stage of disease, and thus more amenable to treatment.”

The study did not specifically address findings in the colon; however, in a 2001 study of 300 patients, Yee found that virtual colonoscopy identified every patient with a clinically significant colon polyp.

The investigator said the new results reinforce the potential appeal of virtual colonoscopy for the general public. “Right now, less than 30 percent of Americans who should be screened for colon cancer—that is, adults age 50 and above—actually come in for screening,” said Yee. “The message here is, go out and get screened for colon cancer. If you have a virtual colonoscopy, we will find clinically significant lesions in the colon and can find significant disease outside of the colon as well.” ■

San Diego study sheds light on ‘habit’ learning in humans

A study in the July 28 issue of *Nature* provides strong evidence of a human mental ability that has long been speculated about by scientists but seldom demonstrated in studies: the ability to learn and retain new information through repetition, but without conscious remembrance of it.

Larry Squire, PhD, and colleagues at the VA San Diego Healthcare System and the University of California, San Diego, conducted a study involving two patients with severe memory loss, due to herpes simplex encephalitis. The patients were asked to choose the “correct” object in each of eight pairs of miscellaneous objects.

The word “correct” was printed on the bottom of one object in each pair, and could be read only after the object was picked up and turned over. After several weeks of repeating the same test, the two participants were scoring 95 and 100 percent in their selection of the correct item.

“This is trial-and-error learning, which can be accomplished independently of the ability to consciously remember what was learned,” said Squire. He said this type of non-declarative or “habit” learning has been studied extensively in animals but not in humans, because “this capability is ordinarily obscured by our excellent

capacity to learn by conscious memorization.”

The new findings, said Squire, help explain why patients with amnesia can still manage to do many tasks that involve frequent repetition, such as finding their way around their neighborhood without getting lost. He said the findings also hold positive implications for patients with traumatic brain injury.

“The findings tell us that there is a considerable reservoir of potential learning that brain-injured patients, especially patients with severe memory impairment, can accomplish.” ■

Career milestones

Joseph W. Leung, MD, chief of gastroenterology at the VA Northern California Health Care System, was honored as a “Master Endoscopist” by the American Society for Gastrointestinal Endoscopy at the group’s 2005 Crystal Awards in Chicago in June. Leung, who has trained numerous fellows in the United States and Hong Kong and designed several endoscopic accessories and devices, also received the Society’s “Research and Outcomes and Effectiveness Award” for his work on enhancing the performance of biliary stents.

Judith LaVoie, a Baltimore-based communicator with VA’s *Journal of Rehabilitation Research and Development*, won first place in the brochures category of the 2005 VHA Excellence in Public Affairs Program for her brochure promoting the journal. LaVoie received the award earlier this month in Norfolk at the national training conference of VA’s Office of Public and Intergovernmental Affairs.

Malak Kotb, PhD, an immunologist and senior research career scientist at the Memphis VA Medical Center, was named chair of the Immunity and Host Defense Study Section of the National Institutes of Health for 2005 – 2006. Kotb will lead a panel of experts in evaluating grant applications focused on host-microbe interactions, the genetics of susceptibility to infectious diseases, and immune responses to pathogens. ■

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the services to further advance the ways in which VA provides care.”

The trial will feature a robot called the MIT-Manus, developed at the Massachusetts Institute of Technology. Users sit at a table with their arm attached to the robot. A video screen instructs them to perform a task with their arm, such as connecting some dots. If they are unable to do it, the robot assists. As patients initiate more movements on their own, the robot adjusts its support accordingly.

The therapy relies on the principle of neuroplasticity, or the ability of the

adult brain to rewire itself. When neurons die as the result of a stroke or other condition, other brain cells, prompted by assisted body movements, appear to begin compensating for the lost function.

Previous clinical research on the robot, conducted in part at the Baltimore VA Medical Center, yielded promising results. In one study, for example, patients in the robot-assisted group improved twice as much as those in the usual-care group.

The new study, chaired by Albert Lo, MD, PhD, a neurologist at the West Haven VA Medical Center, will test an expanded version of the robot, which includes modules for the shoulder and wrist, along with a grasp sensor. Future versions are expected to include lower-limb modules as well.

“If robotic training proves beneficial,” said Lo, “it will make more widely available high-quality, evidence-based rehabilitative care at a time when there is a shortage of experienced therapists and a progressively growing rehabilitative need for veterans and all Americans.” ■

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