



VA Research Currents

Study urges better blood-pressure control in seniors

A review study led by Sarwat I. Chaudhry, MD, a fellow at the West Haven VAMC, backs recent recommendations from a national committee that urged doctors to be more proactive in treating systolic hypertension in older adults. The study appeared Sept. 1 in the *Journal of the American Medical Association*.

In systolic hypertension, systolic blood pressure—the higher number in the ideal 120/80 reading—is 140 or above, and diastolic blood pressure is below 90. Adults with this condition are at increased risk for stroke, heart attack and heart failure. But according to Chaudhry, many doctors believe that as long as older people's systolic pressure is no greater than their age plus 100, no treatment is needed.

Chaudhry and colleagues reviewed 36 clinical trials and other studies from 1966 to 2004 and found strong evidence of reduced heart risk with treatment of systolic hypertension in cases where systolic blood pressure is 160 or above. In cases where systolic blood pressure is from 140 to 159, wrote Chaudhry and her co-authors, treatment decisions should be more sensitive to patient preferences and tolerance of therapy.

The 2003 report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure stressed that in those aged 60 or older, systolic hypertension is a far more important cardiovascular risk factor than diastolic hypertension. Despite this recommendation, studies show that poor control of systolic hypertension is increasing.

The studies analyzed by Chaudhry's team supported the use of diuretics and calcium channel blockers to treat systolic hypertension. ■

ABC features brain-injury research in Palo Alto

A Sept. 3 ABC Nightline segment about medical care for returning soldiers featured research at the Comprehensive Rehabilitation Center at the VA Palo Alto Healthcare System.

The ABC crew filmed investigators and patients involved in two projects: One involves the use of a high-quality driving simulator to assess the driving ability of veterans with stroke, traumatic brain injury or spinal cord injury. The other focuses on combining

electrophysiologic and neuropsychological measures into a comprehensive cognitive evaluation.

“We emphasized how DoD and VA work hand in hand to take care of the wounded soldiers, and how VA R&D helps promote clinical research projects that provide evidence to improve healthcare delivery,” said Henry L. Lew, MD, medical director of the center, who was interviewed for the broadcast. ■

Strep vaccine proves safe in small trial

A vaccine against Group A streptococcus—a widespread germ that causes millions of sore throats each year, along with skin infections, rheumatic fever and other illnesses—proved safe in a phase 1 trial of 28 healthy adults, providing the first evidence in humans of the vaccine's viability.

“The results of this study are significant because this is the first streptococcal vaccine to be tested in humans in more than 25 years,” said James B. Dale, MD, inventor of the technology and senior author of the study, which appeared Aug. 11 in the *Journal of the American Medical Association*.

Dale is associate chief of staff for education at the Memphis VAMC and chief of infectious diseases at the University of Tennessee, Memphis.

The genetically engineered vaccine is designed to prevent infection by six of the more important types of group A strep. In the study, participants received three injections of the vaccine and were followed for one year. The vaccine was well-tolerated and stimulated a significant immune response. Further studies will have to show that the vaccine actually prevents infection.

Group A streptococcal infections cause a range of illnesses, from uncomplicated strep throat and mild

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Recent publications and presentations

The following is a sampling of recent publications and presentations by VA researchers. Due to space constraints, only VA-affiliated authors are listed. Send notifications of upcoming or recent publications and presentations to VA R&D Communications at researchinfo@vard.org. Include full names and degrees of VA-affiliated authors.

“Can We Use Automated Data to Assess Quality of Hypertension Control?” Ann M. Borzecki, MD, MPH; Ashley T. Wong, MA; Elaine C. Hickey, RN, MS; Arlene S. Ash, PhD; Dan R. Berlowitz, MD, MPH. **Bedford.** *American Journal of Managed Care*, July 2004.

“A Controlled Trial of Aromatherapy for Agitation in Nursing Home Patients with Dementia.” A. Lynn Snow, PhD. **Houston.** *Journal of Alternative and Complementary Medicine*, July 2004.

“A Decline in Mupirocin Resistance in Methicillin-Resistant Staphylococcus Accompanied Administrative Control of Prescriptions.” Elaine S. Walker, PhD; Felix A Sarubbi, MD. **Mountain Home.** *Journal of Clinical Microbiology*, June 2004.

“Development and Validation of a Computerized Trauma History/PTSD Screen (CTS).” Edward S. Kubany, PhD. **Honolulu.** Annual Convention of the American Psychological Association, July 2004.

“Effects of Losartan and PD123319 on Stress-Induced Alterations in Blood Pressure and Body Temperature.” Christopher S. Broxson; Philip J. Scarpace, PhD; Nihal Tumer, PhD. **Gainesville.** Endocrine Society Meeting, June 2004.

“Measuring Adherence to Antiretroviral Therapy in a Diverse Population Using a Visual Analogue Scale.” Thomas P. Giordano, MD. **Houston.** 15th International AIDS Conference, July 2004.

“Neuroprotective Effects of Recombinant Thrombomodulin in Controlled Contusion Spinal Cord Injury Implicates Thrombin Signaling.” Barry W. Festoff, MD; Zhiming Suo, MD, PhD; Paul M. Arnold, MD; Bruce A. Citron, PhD. **Kansas City and Bay Pines.** *Journal of Neurotrauma*, July 2004.

“A Pilot Trial of a Telecommunications System in Sleep Apnea Management.” Deborah A. Demolles; David Sparrow, DSc; Daniel J. Gottlieb, MD, MPH. **Boston.** *Medical Care*, Aug. 2004.

“Preliminary Assessment of a Prototype Advanced Mobility Device in the Work Environment of Veterans with Spinal Cord Injury.” Rory A. Cooper, PhD; Michael L. Boninger, MD; Rosemarie Cooper, MPT; Shirley G. Fitzgerald, PhD; Annmarie Kellerher, OTR/L. **Pittsburgh.** *NeuroRehabilitation*, 2004.

“Prophylactic Creatine Administration Mediates Neuroprotection in Cerebral Ischemia in Mice.” Aijian Liu; Robert Ferrante, PhD. **Bedford.** *The Journal of Neuroscience*, June 30, 2004. ■

New distance courses

VA health professionals looking to update their skills in epidemiology, biostatistics and clinical research methods can now choose from an expanded list of online and satellite-broadcast courses from the Seattle Epidemiologic Research and Information Center. The center is offering two new courses, both of which were taught at its recent Summer Session in Seattle:

Introduction to Epidemiologic Methods, debuting the week of Oct. 18, presents the basics of epidemiologic study design and provides a grounding in epidemiologic principles that will help students critically interpret research results. *Research in Improving Chronic Illness Care* presents a new paradigm for better care of the chronically ill and applies this approach to quality improvement, policy development, and research. It premieres the week of Nov. 15.

For more information go to www.eric.seattle.med.va.gov/education/seattle_eric_cyber.htm. For a course brochure and e-mail eric@med.va.gov or call (206) 277-3587.

HSR&D call for abstracts

VA Health Services Research and Development will hold its next national meeting Feb. 16 – 18, 2005, in Washington, DC. The theme will be “Improving Care for Veterans with Chronic Illnesses.” Nearly 600 researchers, clinicians and policymakers from VA are expected to attend. VA’s Houston Center for Quality of Care and Utilization Studies will host the event.

Those conducting relevant research are invited to submit abstracts for poster or oral presentations or workshops, due Oct. 10. For more information visit www.hsr.d.research.va.gov/about.national_meeting/2005.

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Study finds many patients who skimp on medications don't tell doctors

Two in three chronically ill patients who cut back on their prescription drugs to save money don't tell their doctors before doing so, according to a study by VA researchers and colleagues published in the Sept. 13 *Archives of Internal Medicine*.

The authors, from the Ann Arbor VAMC, the University of Michigan and Stanford University, say their findings reinforce how critical it is for doctors and nurses to ask patients if they're having trouble paying for their drugs, and educating them about which ones are most necessary to protect their health.

The researchers found that most patients who did speak up got help through free samples, generic drugs or information about assistance programs.

Those patients who didn't bring up the awkward issue of cost themselves weren't likely to get asked, either, the study shows. Two-thirds of those who had never raised the issue with their doctor said no one on their medical team inquired if they were having trouble paying for their drugs.

Difficulties discussing medication cost problems were seen across all income levels, age groups and genders. Piette notes that this means health care providers should ask even their better-off patients if they're having trouble paying for their medicines, or cutting back due to cost.

"This issue is important for all patients, especially those with conditions that can be controlled through regular use of medications," says

Piette, a VA career scientist and associate professor of internal medicine at the University of Michigan Medical School. "Other studies have shown that patients with chronic conditions and financial constraints are skipping such crucial drugs as diuretics, diabetes drugs, cholesterol drugs and antipsychotics, all of which are most effective with consistent use."

Piette and colleague Michele Heisler, MD, also at Ann Arbor, recently published findings that showed long-term poor health consequences among people who had reported cutting back on their medications due to cost.

The patients in the new study were from a nationally representative pool of adults over age 50, but tended to have below-average income and education.

'State of the art' conference focuses on implementation of research findings

VA's Health Services Research and Development Service (HSR&D) hosted a state-of-the-art (SOTA) conference titled "Implementing the Evidence: Translating Practices, Systems and Organizations" in Washington, D.C., Aug. 30 – Sept. 1. The goal of this SOTA was to assess and define the current state of knowledge about how to create organizations that can rapidly implement new knowledge into complex, highly technical health care delivery systems to improve the quality of patient care.

Catarina Kiefe, MD, PhD, director of the Deep South Center on Effectiveness, Birmingham VA Medical Center; and Anne Sales, PhD, RN, implementation research coordinator for the Ischemic Heart Disease Quality Enhancement Research Initiative (QUERI), co-chaired the conference. The agenda included work groups and plenary discussions. Highlights included presentations by acting Under Secretary for Health Jonathan Perlin, MD, PhD, and a keynote address by Kenneth Kizer, MD, MPH, president and chief executive officer of the National Quality Forum and former VA under secretary for health.

SOTA work groups addressed the following questions:

- What are the attributes of an ideal integrated

informatics system that supports implementation of evidence?

- How does evidence inform what an organization and its providers do?
- What is the role of incentives in promoting implementation of best practices and organizational change?
- How does research need to be reorganized to foster organizational and practice change?

Background papers had been commissioned to provide conference participants with a common base of knowledge to stimulate discussion surrounding these questions. Paper topics included, for example: "Incentives for Implementation and Organizational Change"; "Reorganizing Research to Foster Organizational and Practice Change"; and "Lessons Learned about Implementation of Research Evidence into Clinical Practice: Experiences from VA QUERI." Papers will be revised based on participant feedback and then submitted and peer-reviewed for a special issue of the *Journal of General Internal Medicine*. There will be a follow-up meeting at the QUERI National Meeting to be held in Washington, DC, Dec. 1 – 3, 2004. ■

Career milestones

Albert Lo, MD, PhD, a rehabilitation researcher in West Haven, and **Steven M. Asch, MD, MPH**, a health services investigator in West Los Angeles, are among this year's recipients of Presidential Early Career Awards for Scientists and Engineers. Lo, a neurobiologist, conducts animal studies on the processes involved in nerve injury and pain. Asch studies quality of care, particularly within the VA system. He is currently developing methods to assess two key areas of HIV care: treatment with antiretroviral drugs, and screening and prevention of opportunistic infections.

Joseph Francis, MD, was named associate director of Health Services Research and Development. Francis will oversee implementation activities, including the Quality Enhancement Research Initiative (QUERI). He is board-certified in internal medicine, geriatrics and medical management, and served as a clinical manager in VISN 9 and as vice president for data

management and quality at St. Vincent's Hospital in Indianapolis.

Mark Zimering, MD, chief of endocrinology and assistant chief of Medical Service at the VA New Jersey Health Care System, was among outstanding federal employees to win a 2003 Arthur S. Flemming Award. Zimering was recognized for his research on how basic fibroblast growth factor contributes to disease in pituitary tumor, diabetes and bone cancer.

Steven E. Kahn, MB, ChB, associate chief of staff for research and development at the VA Puget Sound Health Care System, was one of four recipients of the first Distinguished Clinical Scientist Award from the American Diabetes Association. The award comes with four years of funding for research and mentoring. Kahn was cited for his work on beta cell function in normal subjects and the pathogenesis of hyperglycemia in type 2 diabetes. He has also done extensive work on regulation of islet amyloid polypeptide secretion, as well as the role of amyloid in islet lesions.

Correction: An item in the July issue of *Research Currents* on **Cayla Teal, PhD**, a post-doctoral fellow at the Houston Center for Quality of Care and Utilization Studies, contained inaccurate information. Teal was named a Kellogg Scholar in Health Disparities by the W.K. Kellogg Foundation and the Center for Advancement of Health. She will participate in training workshops at six nationally renowned sites for health disparities research, including the Harvard Center for Society and Health; Center on Social Disparities in Health at the University of California, San Francisco; and the Institute for Social Research at the University of Michigan.

STREP (cont. from pg. 1)

skin infections to rheumatic fever and rheumatic heart disease, which kills about 400,000 worldwide each year, particularly children in undeveloped countries. The rarest but most severe diseases caused by the germ are necrotizing fasciitis—flesh-eating disease—and toxic shock syndrome. These conditions affect some 9,000 Americans each year. ■

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