Research Quarterly Update

Office of Research and Development www.research.va.gov

Fall 2014

An overview of key accomplishments and initiatives in VA research

NEW INITIATIVES



VA social worker Amy Mitchell, seen here with James Love, helps conduct outreach as part of the Alabama Veterans Rural Health Initiative.

Improving rural Veterans' access to mental health care; boosting primary care communication

In 2013, HSR&D developed an innovative funding initiative called Collaborative Research to Enhance and Advance Transformation and Excellence (CREATE). The goal is to encourage HSR&D investigators to work with VA partners—such as national clinical program offices— in studying high-priority issues that affect the health and health care of Veterans. Continued on page 2

VA, NIH seek alternatives to addictive opioids

According to a recent Army study in the *Journal of the American Medical Association*, nearly half of all troops who have come home from Afghanistan and Iraq are coping with chronic pain. Chronic pain profoundly affects Veterans' quality of life, interfering with work, recreation, and social interaction. Says Indianapolis VA researcher Dr. Matthew Bair, "It's important that we treat chronic pain, and the most common way we treat it is with medication." Continued on page 2

THIS ISSUE: ENSURING HIGH-QUALITY CARE

FROM THE CHIEF R&D OFFICER



Ensuring high-quality care for Veterans is an important goal of VA's Office of Research and Development (ORD).

Our Health Services Research and Development Service (HSR&D) spearheads this effort. HSR&D investigators study all aspects of VA health care and focus on identifying and evaluating innovative strategies that lead to accessible, high quality, cost-effective care for Veterans and the nation.

Over the past two years, in an effort to improve the timeliness and impact of research on VA health care, HSR&D has developed innovative funding programs that focus on Continued on page 2

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U.S. Department of Veterans Affairs Veterans Health Administration

Office of Research & Development

FROM THE CHIEF R&D OFFICER

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collaboration and partnerships. The idea is that researchers working together with health care managers, frontline doctors and nurses, patients, and other stakeholders from the early development stages of a research project will generate findings that are targeted, practical, and more readily implemented into clinical practice.

Among HSR&D's innovative programs are the following:

• The Collaborative Research to Enhance Transformation and Excellence (CREATE) initiative encourages HSR&D investigators to collaborate with others in the Veterans Health Administration (VHA) in studying high-priority issues.

• Centers of Innovation (COINs) promote strong clinical and operational partnerships. HSR&D has funded 19 COINs on VA priorities such as health equity, rural health, primary care, pain, long-term care, and disability and rehabilitation.

• Created in 1998, VA's Quality Enhancement Research Initiative (QUERI) supports VHA's efforts to improve health care for Veterans by implementing effective clinical treatments into routine practice. Each of QUERI's 10 centers focuses on an area that is a high priority in Veterans' health care. Examples include heart disease, mental health, substance abuse, and polytrauma. And QUERI investigators are increasingly looking at cross-cutting issues such as e-health technology.

Among many other topics, our researchers look into ways to cut wait times and improve scheduling procedures. We are also working to better understand the health care needs of

NEW INITIATIVES

Improving rural Veterans' access to mental health care; boosting primary care communication

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Two new CREATEs that will help ensure high-quality care for Veterans are:

Improving Rural Veterans' Access/ Engagement in Evidence-Based Health care: Veterans living in rural areas make up 41 percent of all VA enrollees. The majority of them receive care in VA community-based outpatient clinics (CBOCs). This CREATE seeks to learn more about



access to and engagement in evidence-based mental health services delivered in CBOCs.

One project in this CREATE aims to develop a patient-centered survey to measure rural Veterans' perceived access to mental health services. This is important because if Veterans don't know about certain services, they are unlikely to use them.

A second will evaluate ways to increase engagement in mental health care at CBOCs, and a third will test clinical interventions to improve the quality and outcomes of mental health care at CBOCs.

Operational partners for this CREATE include stakeholders in VISN 16, in the nation's central Southern region, and VA's Office of Mental Health Services.

Improving Quality and Safety Through Better Communication in



Dr. Laura Petersen directs a Houston-based CREATE focused on communication within the PACT setting.

PACTs: VA has adopted a patient-centered care model called the Patient-Aligned Care Team (PACT). The PACT model involves a team of health care professionals, led by a primary care provider, who work collaboratively with Veterans to address their personal health care needs.

One focus of this CREATE will be patient safety within the PACT setting. For example, some projects will address breakdowns in communication and coordination among providers that might put patients at risk.

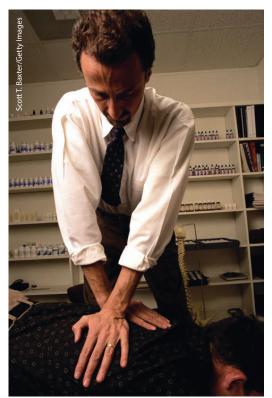
Operational partners for this CREATE include stakeholders in VISN 12 (the Great

NEW INITIATIVES

Lakes area), VISN 16, and the VA Primary Care Program Office.

HSR&D has funded eight other CREATEs in critical areas that include posttraumatic stress disorder (PTSD), long-term care, women's health, pain management, and substance use disorders.

VA, NIH seek alternatives to addictive opioids Continued from page 1



One project in the new VA-NCCAM initiative will develop a collaborative treatment model between chiropractors, primary care providers, and mental health providers for Veterans with spine pain and related mental health conditions.

Providers have turned increasingly to opioid analgesics, psychoactive drugs that derive naturally from the poppy plant, such as morphine and codeine, or that are made synthetically, such as methadone and oxycodone. In any given year, about one-third of Veterans in VA care are prescribed an opioid, and one-third of those are on long-term opioid prescriptions.

While opioids are commonly prescribed, their chronic use can cause many unwanted side effects. Moreover, opioids are not consistently effective, can exacerbate pain conditions in some patients, and can be misused.

Accordingly, VA and the National Institutes of Health (NIH) announced in September 2014 a five-year, \$21.7-million quality-improvement initiative to explore non-drug approaches to managing pain and related health conditions such as PTSD, drug abuse, and poor sleep.

"Pain is the most common reason Americans turn to complementary and integrative health practices," said Dr. Josephine P. Briggs, director of NIH's National Center for Complementary and Alternative Medicine. "The need for non-drug treatment options is a significant and urgent public health imperative. We believe this research will provide much needed information that will help our military and their family members, and ultimately anyone suffering from chronic pain and related conditions."

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Veterans who live in rural or remote settings, and to develop and test initiatives that will fill any gaps in their care.

Another key research area is Patient-Aligned Care Teams (PACTs). PACTs aim to deliver primary care that is patient-driven, team-based, comprehensive, and coordinated. Our investigators have generated valuable evidence and insights to help refine the PACT model, which VA began implementing about four years ago.

The spread of high-speed Internet access and the use of mobile technologies give Veterans multiple ways to connect with their VA health care team. We are looking at how "connected" health care can be made even better, with a broad range of studies focused on the use of telephones, the Internet, videoconferencing, email, and text messaging.

This issue of VA Research Quarterly Update will inform you about these and other ways our researchers are helping to ensure world-class care for Veterans.

Timothy J. O'Leary, MD, PhD Chief Research and Development Officer

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IN THE NEWS

Colon cancer screening rates found to be lower for African American Veterans—Health Day News and other media outlets reported the results of a study by researchers at the VA Greater Los Angeles (GLA) Healthcare System that found colon cancer screening rates for Continued on page 4

IN THE NEWS

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African American Veterans at GLA were much lower than those of other races, even though all patients have similar access to care.

The study also found that having a primary care provider greatly increased the likelihood that patients would be screened for colon cancer. Researchers looked at a random sample of 357 GLA patients who were eligible for colon cancer screening based on age—older than 45 for African Americans, and older than 50 for other races.

Overall, 50 percent of GLA patients in the study had some form of colon cancer screening. The rate among African Americans was 42 percent, compared with 58 percent for others. The use of colonoscopy for screening was also lower among African Americans, 11 percent versus 23 percent.

Other factors besides race associated with lower colon cancer screening rates were being homeless, taking more prescription drugs, having a lower level of serviceconnected disability, and not seeing a primary care provider within two years of screening eligibility.

Colon cancer, according to the article, is the second leading cause of cancer-related deaths in the U.S. Blacks have the highest incidence of colon cancer, and are most likely to die from the disease.

Old Dixie Brewery to become VA research center—Many residents of New Orleans and other parts of the South have long enjoyed Dixie Beer. The building that originally produced the beer, on Tulane Avenue in New

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The 13 research projects funded under the initiative will be undertaken at VA medical centers and at academic institutions throughout the nation.

In a related event, VA's National Center for Ethics in Health Care has created a podcast to help clinicians better understand the requirements of VHA's new Directive 1005, titled *"Informed Consent for Long-Term Opioid Therapy for Pain."* VA employees can find the podcast on the National Center's Intranet site.

The new consent procedures excluded patients being treated for cancer pain. At the request of VA's National Center on Ethics in Health Care, HSR&D has issued a call for research proposals to look at the risks of opioid medications in treating cancer pain and the impact of informed-consent processes on this group.

A CHAT WITH OUR EXPERTS



The power and perils of electronic health records

Dr. Hardeep Singh is chief of the health policy, quality and informatics program at the Center for Innovations in Quality, Effectiveness and Safety, based at the Michael E. DeBakey VA Medical Center in Houston. He also is an

associate professor at Baylor College of Medicine. Singh is a nationally recognized expert in electronic health record (EHR)-related patient safety issues, as well as diagnostic errors. We spoke with him about his work and recent findings.

VARQU: You have written that EHRs are essential to improving patient safety. Why is that the case?

Singh: There are several reasons. The first is information availability and accessibility, which is the really big challenge for paper-based records. There has been research that shows missing medical information, which often occurs in paper-based record systems, can cause errors.

The second is that EHRs improve information communication and coordination, so test results can be easily transmitted from one location to another. Clinicians can send messages to consultants and ask for

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opinions electronically. They can also take advantage of other features, such as clinical decision support and electronic medication-ordering.

One well-known example that illustrates EHRs' power is from about two decades ago, when a patient presented to an intensive care unit with angioedema, a severe allergic reaction. She was allergic to a medication called an ACE inhibitor, used for treating high blood pressure. The patient was discharged and unfortunately given the same medication by another doctor. She then came back to the ICU with the same allergic reaction. EHRs can prevent this—as long as one enters this type of severe allergy electronically, and the EHR has appropriate clinical decision-support features. These features are really helpful for improving patient safety.

Problems with handwriting are overcome by ordering medications electronically. EHRs also enable better measurements, such as providing us with quality-of-care data that we can look at in a much more meaningful way. The data enables us to improve our quality and safety measurements, and measurement is the first step to improvement.

VARQU: One of the EHR-related safety concerns you've studied is the overuse of alerts. Can you provide some background on this work?

Singh: We view the safety of patients and EHRs in three different dimensions. The first dimension is that the technology used by clinicians has to be safe, which means EHRs have to be safe. Many years ago at [Great Britain's] National Health Service, there was a computer glitch in which patients received Viagra instead of Wellbutrin. We don't want to have glitches in which medication names or doses get changed. We need safe EHRs, which means they have to display and communicate information safely. EHRs also have to be available. We can't have long and unexpected downtimes, for instance, disrupting clinical workflow.

The second dimension is that the technology has to be *used* safely. We can have the best EHR technology in the world, but if it isn't used safely, we can still have patient safety problems. If there are too many alerts in the electronic records system, providers can be overloaded, and they are going to miss critical information. If EHRs are used only partially—with some information on paper and some on the electronic version—information may get lost, not followed up on, or missed.

The third dimension is to use EHRs to improve patient safety,

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Orleans, will soon become a state-ofthe-art research center for researchers with the New Orleans VA Medical Center and Louisiana State University.

According to WWL-TV, New Orleans, the design of the new center will preserve and repair much of the old brewery, and a modern brick and glass structure will rise from behind the historic façade for researchers' use. Among the parts of the building to be preserved is a six-story clock tower with "Dixie Beer" lettering.

The original building was constructed in 1907. The new research center is expected to be completed in summer 2016.

Telemedicine found to be an effective tool to screen for diabetic eye disease—The Sept. 1, 2014, issue of *JAMA Ophthalmology* included the results of a study on the effects of a diabetic teleretinal screening program on eye care use and resources. One of the study's



VA has been expanding the use of telemedicine. VA experts showed some of the technology to journalists at a 2013 event at the National Press Club.

authors, Dr. Mary G. Lynch of the Atlanta VA Medical Center and Emory University, was subsequently interviewed by medicalresearch.com. Since 2006, Lynch explained,

Since 2000, Lynch explai

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VA has been systematically using teleretinal screening of patients with diabetes to screen for retinopathy (a complication of diabetes that can result in impairment or loss of vision) in its primary care clinics.

Lynch and the other members of the research team looked back at the medical records of 465 patients who had undergone diabetic teleretinal screening at the Atlanta VA's community-based outpatient clinic. The team found that although teleretinal screenings can be accurate and sensitive for a number of visually significant diagnoses, they create additional burdens for hospitals in terms of referrals and new examinations generated by the screenings' results.

Notwithstanding the extra workload, Lynch concluded, "teleretinal imaging in the primary care setting is a highly effective tool to screen patients for eye disease. VA and other health care systems are going to have to look at innovative ways of bringing basic eye care services to the community in a cost-effective way. Telemedicine is going to be one of those methods."

VA research highlighted in PBS Frontline investigation— On Oct. 1, 2014, many Public Broadcasting System (PBS) stations aired "League of Denial," an investigation

into what PBS called the "National Football League (NFL)'s concussion crisis."

PBS highlighted data from the Bedford VAMC's brain repository revealing that the brains of 76 of 79 former NFL players showed evidence of chronic traumatic encephalopathy (CTE) upon examination. In addition,

A CHAT WITH OUR EXPERTS

which is what we intended EHRs to do when we implemented them. We want them to measure and monitor patient safety and to prevent patient harm. For instance, we want to develop computer-generated algorithms that could help clinicians predict which patients might be at risk of a problem and require some intervention.

Our work has focused on notification-type alerts sent to providers' inboxes in the electronic records system. These alerts are meant to be "flags" to providers that something abnormal is happening and that they should do something about it. Over time, however, these flags have become ways to notify providers about just about everything.

While I definitely should be notified when a patient of mine has an abnormal chest X-ray or an abnormal lab result that needs to be acted upon, I don't need to be notified about everything. Perhaps some of these notifications could go to somebody else on my care team, such as a nurse or another team member. Too many alerts can lead to problems, such as ignoring them and missing critical information.

Alerts have also been used within the medication ordering process—for instance, in the example I gave about how decision support can help to avoid an allergic reaction. Doctors also receive alerts for drug interactions between drug A and drug B. However, some of these alerts also can be of low value, as when this interaction is very minor. The computer still gives you an alert for that.

The problem occurs when I prescribe 100 medications in one day and get pop-up alerts for 95 of them. Then the alerts become a bit of a nuisance. And researchers have shown, both in and outside VA, that if you give too many pop-up alerts to providers when they are ordering medication, they tend to ignore *all* of them. As a result, sometimes a clinician might ignore a very important alert.

VARQU: How can we keep providers from getting too many alerts?

Singh: The solutions aren't that simple. We try to use a broad sociotechnical approach. We think not only of the technology dimensions of the issue—software, hardware, the way alerts are displayed—but also workflow, other policies, and other organizational factors that really aren't technological.

For example: VA has about 50 types of alerts that can be configured within the notification system for CPRS [VA's computerized patient record system]. Some VA facilities have designated 10 of them as mandatory, which means that providers cannot turn them off. They

A CHAT WITH OUR EXPERTS

have to receive them. But other VA facilities have 23 of them as mandatory, which means they want their providers to receive a lot more alerts than at other VA facilities.

What's the right balance? We've studied that, and we don't need 23. Only some alerts need to be mandatory. For instance, if an examination shows a nodule in the lung for one of my patients, I need to know that. If a consult got scheduled six months from now in a dermatology clinic, however, I don't need to receive that information today, so that doesn't need to be mandatory.

That's a local policy. It's got nothing to do with technology. So our whole approach should be looking at the technological dimensions and non-technical dimensions to figure out the best optimization.

There are also cultural issues. For instance, there are a lot of FYI types of alerts. You see that in emails too, where people just like to notify you "just because." A similar phenomenon is happening with notifications as well, that people just want to notify you, "I gave your patient a diabetic shoe today." Whether it's worth it for me to be notified is debatable. Unfortunately, people don't agree on the optimal level or types of alerts, so there needs to be standardization.

We should cut down the medication-related pop-up alerts to the most essential ones—drug-drug interactions that need to be acted upon. The problem is that even though a consensus group came up with a list two years ago, this hasn't been widely implemented in electronic record systems, including that of VA. So we're still getting alerts about the interaction between aspirin and Tylenol. I don't need to see that alert, but the computer still gives me one. We need to make some of these redundant alerts go away. It will require more than just technology to do so.

VARQU: Is that something VHA is building into the next generation of EHRs? Are the people working on this project talking to you?

Singh: Not directly, but we do have some good resources that could be useful as VA builds the next generation of EHRs. One big resource I'd like to mention is the Office of the National Coordinator for Health IT's SAFER guides. We developed them with funding from the Department of Health and Human Services. They are designed to help institutions figure out how to do a self-assessment on their EHR systems to determine whether they are being used safely and are safe to use.

There is a lot of advice, guidance, and recommended practices

IN THE NEWS

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Bedford researchers examined the brain tissue of 128 football players who, before they died, played the game at high school level or above, including professionally. Of that sample, 101 players (80 percent) tested positive for CTE.

VA and Boston University researcher Dr. Ann McKee, director of the brain bank, told Frontline that the findings suggest a clear link between football and traumatic brain injury. She said, "The higher the level you play football, and the longer you play football, the higher your risk."

CTE occurs when repetitive head trauma begins to produce abnormal proteins in the brain known as "tau." The tau proteins essentially



Dr. Ann McKee teaches medical students at the brain bank located at the Bedford (Mass.) VA Medical Center.

form tangles around the brain's blood vessels, interrupting normal functioning and eventually killing nerve cells themselves. Patients with less advanced forms of the disease can suffer from mood disorders, such as depression and bouts of rage, while those with more severe cases can experience confusion, memory loss, and advanced dementia.

For more "VA Research in the News" items see the online version of VARQU at:

www.research.va.gov/pubs/varqu

HONORABLE MENTIONS

Two VA researchers honored for groundbreaking work on spinal cord injuries—On Sept. 22, 2014, Drs. William Bauman and Ann Spungen, the director and associate director of VA's Rehabilitation Research and Development National Center of Excellence for the Medical Consequences of Spinal Cord Injury, received the prestigious Samuel J. Heyman Science and Environment Medal. VA Secretary Robert McDonald presented the award in Washington, D.C.

The Samuel J. Heyman awards, also known as "Sammies," are presented by the nonprofit, nonpartisan Partnership for Public Service to federal employees who have made a significant contribution to the nation. Bauman, Spungen, and the center they direct have made great progress in understanding the effects of spinal cord injury on the body. Their work helped show that people with spinal cord injury are at a markedly increased risk for heart disease.

The two researchers, based at the Bronx VA Medical Center, were the



VA Secretary Robert McDonald (left) presents the Samuel J. Heyman Science and Environment Medal to Drs. Bauman and Spungen.

first to describe, and then treat, an asthma-like lung condition common in those with higher levels of paralysis. They have developed approaches to

A CHAT WITH OUR EXPERTS

within the nine SAFER guides that would be useful to VHA as they think about the next generation of EHRs. We have a guide on test results and notifications, we have a guide on communication, and we also have guides on things like configurations and interfaces between different parts of EHRs. A lot of this information would be useful, including the guide on organizational responsibilities.

VARQU: Could you tell us more about your work on delayed follow-up on test results, and misdiagnosis.

Singh: One of the areas we are studying is how test results are communicated. We are also looking at misdiagnoses in health care. We are trying to figure out how we can use electronic health records either to detect whether a misdiagnosis has happened, or to prevent it in some fashion.

Currently, we are trying to identify abnormal test results that have not been followed up on. For instance, if someone has an abnormal chest X-ray or an abnormal fecal occult blood test, if that has not been followed up on the computer detects that and generates a list out, and we can then confirm that "oh, yes, that's exactly what happened."

These are "triggers" for us to go look at the medical record. Because otherwise, thousands and thousands of people have tests every day, so how do you identify the needles in the haystack? Our research is trying to make the haystack smaller so that we can easily identify the needles, and find patients who are at risk of not getting follow-up and falling through the cracks of the health care system. We're especially looking at certain types of cancer, because lack of timely cancer diagnosis and missed follow-up are priority issues for VHA to address.

We're also trying to identify how we can use EHRs to flag patients who have had apparent misdiagnoses so we can study their situation to see if there was really a misdiagnosis, and to learn from them. Right now, within the health care system, misdiagnosis is a fairly frequent problem, not just within VHA, but outside as well.

We did a recent study that showed that almost 1 in 20 U.S. patients has had a misdiagnosis. Can the electronic health record help? We think it can. It's going to take some research and lots of effort in order to figure out what we can do. It's not an easy area to investigate and fix. But this is the challenge our lab has undertaken.

NOTEWORTHY PUBLICATIONS

Implementation of telemedicine in VA ICUs may not reduce death rates or length of hospital stays—Intensive

care unit (ICU) telemedicine has been promoted as a way to improve access to intensive care specialists, and thereby improve patient outcomes. However, a recent study led by Dr. Boulos S. Nassar of the Iowa City VA Health Care System found that an ICU telemedicine program at eight VA hospitals did not change patient outcomes.

The system looked at in this study featured a telemonitoring center that was staffed nearly 24/7 with an experienced "intensivist" and two critical care nurses. The center had real-time access to patient



vital signs, intravenous infusion rates, and ventilator settings. There were also highspeed video and audio connections between all ICU patient rooms and the monitoring center

A VA study found only modest added benefits from a inc telemedicine program that features a telemonitoring center.

^a ing center. ^{r.} The study includ-

ed Veterans treated between 2011 and 2012 in facilities that had implemented the telemedicine program in their ICUs, as well as Veterans treated in facilities without the program.

In all, the study included 1,647 patients who had been treated in ICUs with telemedicine monitoring; 1,708 patients who were treated in the same ICUs before the monitoring was implemented, and 3,585 patients treated in ICUs that did not use telemedicine monitoring at all.

"We found no evidence that implementation of ICU telemedicine significantly reduced mortality rates or length of stay," Nassar told *Clinical Innovation and Technology* magazine.

Mortality (death) rates were modestly lower for admissions to the facilities with telemedicine monitoring, both before and after the monitoring program was implemented. However, the implementation of telemedicine was not associated with a significant decline in ICU or in-hospital deaths within 30 days of admission. Nor did the program lead to a reduction in the length of patients' stays in the hospital.

A previous study by a non-VA research team had suggested that ICU telemedicine could help reduce the cost of ICU care, patient

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make it easier for paralyzed patients to undergo successful colonoscopies. They have been partners and collaborators at VA for more than 25 years.

In presenting the medals, Secretary McDonald told the audience that "any research institution would be proud to have these leading scientists, but they have chosen to dedicate their careers to serving Veterans at VA, and we are proud to call them our own."

Dr. Erika Wolf receives two young professional awards— Recognizing her outstanding contri-



butions to the field of traumatic stress, the International Society for Traumatic Stress Studies awarded Dr. Erika Wolf, an investigator

Dr. Erika Wolf

with the Behavioral Sciences Division of VA's National Center for PTSD, the Chaim and Bela Danieli Young Professional Award for 2014.

Wolf also recently received an award for Outstanding Contribution to Trauma Psychology by an Early Career Psychologist from the American Psychological Association's trauma psychology division. Her research interests include the genetics of PTSD and new approaches to accurately assess the effects of PTSD and trauma.

Recently she has worked on studies addressing PTSD and intimate partner aggression; the

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influence of various pre-deployment and deployment risk factors on the development of PTSD; the psychological effects of the Boston Marathon bombing on local Veterans with PTSD; and the link between PTSD and intermittent explosive disorder.

Dr. Richard Wilson receives Jerger Award—The American Academy of Audiology (AAA) pre-



sented its James Jerger Award for Research in Audiology for 2014 to Dr. Richard H. Wilson. Wilson, re-

Dr. Richard Wilson

cently retired, was the chief of audiology and speech pathology at the James H. Quillen VA Medical Center in Mountain Home, Tenn. The award is named for the academy's founder and first president.

Wilson's research career has spanned more than four decades. He designed and led pioneering research on numerous topics in audiology, including speech perception and age-related changes in hearing. He was recently senior author of a study published in the *American Journal of Audiology* that examined the role of compliance in computer-based audiology training for adults with hearing loss.

Dr. William A. Banks receives Norman Cousins Award— The Norman Cousins Award is the highest honor given by the PsychoNeuroImmunology Research Society. The 2014 recipient was Dr.

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mortality, length of stay, and other parameters. The new study appears to show otherwise. In their article, Dr. Nassar and his team analyze various factors that could explain the varying research results, and offer suggestions for optimizing telemedicine in ICUs. (*JAMA Internal Medicine*, July 2014)

Rural women Veterans demographic report available—



Researchers with VA's Office of Rural Health and the University of Colorado conducted a first-of-its-kind study of the population demographics and health care needs of female Veterans enrolled in VA care.

A woman Veteran takes part in the 15th anniversary ceremony at the Women in Military Service to America Memorial in 2012.

They found that women Veterans living in rural and

highly rural areas were older and more likely to be married than their urban counterparts. Diagnostic rates were about equal across the groups for several mental health conditions, hypertension, and diabetes. One exception: Non-posttraumatic stress anxiety was significantly lower for highly rural Veterans.

Rural and highly rural women Veterans were also less likely to visit VA for women-specific care than were urban women Veterans, and those in highly rural areas were less likely to visit for mental health care, compared with urban women.

The authors recommended that VA expand its use of telehealth, peer support, and other methods to better reach rural women Veterans, especially for women-specific care and mental health care. (*Journal of Rural Health*, Spring 2014)

Supplement highlights VA's PACTs—VA now has Patient-Aligned Care Teams (PACTs) at all of its 150 hospitals and 820 community-based outpatient clinics. A July 2014 supplement to the *Journal of General Internal Medicine* featured 19 articles that shared lessons learned by researchers and their clinical policy partners during the early stages of PACT implementation. Below are a few highlights.

Researchers from the Iowa City VA Medical Center found that VA's ability to provide continuity of care was significantly related to Veterans' perceived quality of communication between themselves and their providers. The researchers found that the unavailability of a primary care provider for a week or more had a small but statistically

NOTEWORTHY PUBLICATIONS



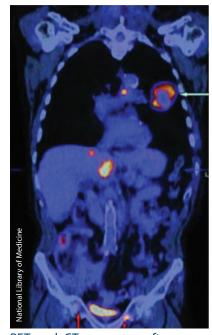
A PACT team in action at the Philadelphia VA Medical Center.

significant relationship with increased emergency room visits, especially if that provider was the sole (or nearly the sole) provider of a patient's care.

An Ann Arbor team found that clinical pharmacy specialists could function effectively as "supporting prescribers"—in place of physicians—for nurses managing the care of patients with high blood pressure. The study, which included 126 Veterans, compared pharmacist- versus physician-supported case management and found similar results between the two models.

Scans used to diagnose lung cancer may not be accurate in areas with infectious lung disease—Positron emission tomography (PET) is a medical imaging technique that produces 3-D images showing differences between healthy and diseased tissue. PET commonly used a radioactive tracer called FDG (fluorodeoxyglucose), so the test is sometimes called an FDG-PET scan.

FDG-PET scans are often used in combination with computed



PET and CT scans are often combined as an aid to diagnosing lung cancer. A VA study suggests the method may produce more false-positives in regions of the country where certain infectious lung diseases are common.

tomography (CT) scans to diagnose lung cancer. A team from VA's Tennessee Valley Health Care System and Vanderbilt University Medical Center in Nashville found that FDG-PET scans combined with CT are not as good at detecting lung cancer in regions where there is endemic infectious lung disease, compared with regions where such disease is not widespread.

The researchers reviewed 70 previous studies on FDG-PET. In patients who had pulmonary nodules but not lung cancer, FDG-PET was 16 percent more likely to give a false-positive result when the patients lived in regions where infectious lung disease is prevalent.

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William A. Banks, associate director for the Geriatric Research, Education, and Clinical Center at VA's Puget Sound Health Care System.

Banks, also a professor at the University of Washington, studies the blood-brain barrier (BBB)—more specifically, "how the brain and body communicate with one another through the transfer of informational molecules across the BBB." His lab has shown how proteins and other molecules cross the barrier, and how various diseases affect that process. Among his current projects are studies examining ways to deliver drugs to the brain, as possible treatments for Alzheimer's disease or other ailments.

Norman Cousins was a journalist and author who wrote about the role of laughter and positive emotion in boosting the immune system and overcoming illness. He became known as an articulate spokesman and advocate for the field of psychoneuroimmunology.

For more "honorable mentions" see our website:

www.research.va.gov/pubs/varqu

OTHER RECENT PUBLICATIONS

A meta-analysis of group cognitive behavioral therapy for insomnia, EA Koffel et al. *Sleep Medicine Reviews*, May 14, 2014 (epub ahead of print)

A virtual hope box smartphone app as an accessory to therapy: proof of concept in a clinical sample of Veterans. NE Bush et al. Suicide and Life Threatening Behavior, May 15, 2014 (epub ahead of print)

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OTHER RECENT PUBLICATIONS

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Congestive heart failure self-management among US Veterans: The role of personal and professional advocates, E Skaperdas et al. Patient Education and Counseling, June 2014

Effects of nurse-managed protocols in the outpatient management of adults with chronic conditions: a systematic review and meta-analysis, RJ Shaw et al. Annals of Internal Medicine, July 15, 2014

Explaining racial disparities in anticoagulation control: results from a study of patients at the Veterans Administration, SR Rao et al. *American Journal of Medical Quality,* March 18, 2014 (epub ahead of print)

Low uptake of colorectal cancer screening among African Americans in an integrated Veterans Affairs health care network, FP May et al. *Gastrointestinal Endoscopy*, August 2014

Mental health beliefs and their relationship with treatment seeking among U.S. OEF/OIF Veterans, D Vogt et al. Journal of Traumatic Stress, June 2014

Racial differences in prescription of opioid analgesics for chronic noncancer pain in a national sample of Veterans, DJ Burgess et al. *Journal of Pain*, April 2014

The potential for health-related uses of mobile phones and Internet with homeless Veterans: results from a multisite survey. DK McInnes et al. *Telemedicine Journal and E-Health*, September 2014

Uninsured Veterans who will need to obtain insurance coverage under the Patient Protection and Affordable Care Act, J Tsai and R Rosenheck. American Journal of Public Health, March 2014

NOTEWORTHY PUBLICATIONS

This suggests that the lung diseases common in those regions may sometimes be mistaken for cancer on imaging tests.

Examples of regional lung diseases include histoplasmosis and blastomycosis, which are caused by inhaling airborne fungal spores. Tuberculosis is also much more common in some regions of the United States than in others. (*Journal of the American Medical Association*, Sept. 24, 2014)

Videoteleconferencing matches in-person treatment for Veterans with PTSD—Cognitive processing therapy (CPT) has been found effective for Veterans with PTSD. In the course of 12 sessions with a therapist, Veterans receive education about PTSD symptoms and the changes in thoughts and beliefs that people commonly experience after a trauma They also learn to become more aware of their own thoughts and feelings, and gain skills to help them question or challenge those thoughts.

Many Veterans with PTSD live in rural areas and have limited access to this type of specialized therapy. Researchers at VA's Honolulu medical center, associated with VA's National Center for PTSD, looked at 125 Veterans with combat-related PTSD who lived on four Hawaiian Islands. Between 2009 and 2013, 61 of these Veterans received the 12-session CPT program via videoteleconferencing, and 64 travelled to outpatient clinics in Hawaii to receive CPT in person.

The severity of the Veterans' PTSD was assessed at the beginning of treatment, at the halfway point of the sessions, at the end of treatment, and three and six months after treatment was completed. The research team found that the outcomes of the treatment were "as good as" in-person treatment. They concluded that videoteleconferencing is a safe and effective way to increase access to access to specialty mental health care such as CPT for residents of rural or remote areas. (*Journal of Clinical Psychiatry*, May 2014)

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