

Overview of the Providence VA Medical Center

Sharon Rounds, MD

The Veterans Health Administration is the largest health care system in the US and is part of the Department of Veterans Affairs. There are more than 23 million military veterans in the United States; approximately 10 million receive active medical treatment within the VA health system. The current health care reform debate has focused on the potential role of a single payer system. Thus, it seems particularly timely to feature the unique services that are possible because of the resources, culture, and environment of the VA system.

In 1930 President Herbert Hoover launched the Veterans Administration, which became the Department of Veterans Affairs in 1989. The first priority of the Department of Veterans Affairs has always been to provide outstanding healthcare for veterans. After World War II, General Omar N. Bradley became the head of the Veterans Administration. With thousands of veterans returning home, seeking healthcare, General Bradley decided that the best way to ensure high quality of care in VA hospitals was for these hospitals to be affiliated with medical schools. Currently 119 VA facilities offer graduate medical education or undergraduate medical education through affiliations with 107/130 medical schools and 15/35 osteopathic schools. In 2008 alone, over 30,000 residents and 20,000 medical students received some of their training in VA facilities. In the 1950s Congress approved funding of the VA research program that addresses the healthcare issues of US veterans.

The **Providence VA Medical Center (PVAMC)** was built at its present site at Davis Park in Providence in 1948. It is one of 8 hospitals in the VA New England Healthcare System, also known as **Veterans Integrated Service Network (VISN)1**. In fiscal year 2008, the PVAMC provided care for 30,306 veterans with 307,351 outpatient visits and 3169 hospital admissions. The clinical services are organized by service lines, including Mental Health, Specialty and Acute Care, and Primary Care. The focus of PVAMC is on outpatient care, with small inpatient services in psychiatry, internal medicine, and surgery. The Providence VAMC is categorized as a community teaching hospital in the VA system. Veterans who require services not available at Providence, such as neurosurgery or cardiac surgery, are referred to other VISN1 hospitals or to non-VA local hospitals, depending on the urgency of the referral.

In the 1990s the VA healthcare system underwent major changes under the leadership of Kenneth Kizer, MD. This reform was based on the principles that the VA would offer lifetime care to veterans as an integrated health care system dedicated to delivering 'best value' care with "management of total costs; a focus on populations rather than individuals; and a data-driven, process-focused customer orientation." A data management system, called VistA, a collection of VA-developed software programs that is uniform across the VA system, has undergirded the reform. VistA provides an outstanding electronic medical record with graphical user interface that has

been in use at the PVAMC since 1998. Dr. Tanya Ali describes this electronic medical record and subsequent improvements in patient care. In addition, the VA was the first to adopt bar coding for medication administration on a national basis. Using VistA, physicians in Providence can view medical records, radiographs, and other clinical data of patients cared for at VA hospitals across the country—a particular advantage in caring for an elderly population in Rhode Island with "snowbirds" traveling to Florida annually. In addition, the electronic medical record has made feasible research on health care delivery; medication use, efficacy, and complications; and outcomes of care. Most importantly, VistA has enabled the VA to routinely monitor measures of quality and to facilitate corrective actions. Indeed, numerous measures of quality of patient care are assessed and compared between individual providers, hospitals, the VA nationally, and Medicare.

Thomas O'Toole, MD, describes the Primary Care Service Line activities in this issue. The PVAMC Primary Care Service is a site for medical resident and Brown medical student training in ambulatory internal medicine.

The full range of surgical specialties (except for neurosurgery and cardiac surgery) are represented at the Providence VAMC. The PVAMC is a site for general surgery resident and subspecialty resident training and for the surgical clerkship at Brown Medical School. The Providence VAMC is a site for VISN1 referral for lithotripsy. The surgical services of all VA hospitals participate in the **American College of Surgery National Quality Improvement Program (ACS-NSQIP)**.

Michael Goldstein, MD, describes Mental Health Service activities in this issue. The PVAMC Mental Health Service is a site for psychiatry and psychology resident training, training for post-doctoral fellows and for Brown medical student training.

Both inpatient and outpatient services are offered in all medical specialties at the Providence VAMC. The PVAMC is a site for third and fourth year Brown medical student and resident training in inpatient internal medicine and in dermatology. In addition, the PVAMC is a site for post-doctoral training in the Cardiology, Endocrinology, Gastroenterology, Hematology/Oncology, Infectious Diseases, Pulmonary/Critical Care, and Rheumatology. The VA has pioneered with group clinics for clinical problems for which patient adherence to treatment regimens is difficult, but crucial. These group clinics and the VA telehealth and teledermatology programs are described in this issue.

The Providence VAMC clinical facilities are undergoing major infrastructure improvements. A new building housing the Operating Room and a Diagnostic Imaging suite are nearing completion, as is a new 3-tesla magnetic resonance imaging facility. New construction projects will house the Intensive Care Unit, Emergency Department, Specialty Clinics, and Pharmacy.

The Providence VA Medical Center is affiliated with the Warren Alpert Medical School of Brown University and with

Boston University School of Medicine. In addition, the PVAMC has educational programs in nursing, pharmacy, and dental care with affiliations with 56 educational institutions, including the University of Rhode Island, Rhode Island College, and others. In 2008 the PVAMC was the site of education of 506 students, residents, and MD and PhD post-doctoral fellows in various disciplines.

In 2008, the PVAMC was awarded a competitive VA Nursing Academy grant that established a nursing education affiliation between the Providence VAMC and **Rhode Island College School of Nursing (RICSON)**. The VA Nursing Academy was established in 2007 to address the nationwide shortage of nurses and to ensure that veterans continue to receive the best services available. The PVAMC-RICSON Nursing Academy is a four-year program that has brought about both faculty and student expansion and innovative initiatives.

The Providence VAMC has grown in research funding and facilities. In 1997, the VA dedicated the Research Building (Building 35), providing 13,000 sq. ft. of newly constructed wet laboratory and clinical research space and investigator offices. Construction will soon begin on an 1860 sq. ft. addition to the Research Building. Animal care facilities at the Providence VA Medical Center have a total space of 12,761 sq. ft. The Research Service of the PVAMC is accredited by both AAALAC-I and AAHRPP.

The PVAMC is the site of the **Research Enhancement Award Program (REAP)**, led by Peter Friedmann, MD, Professor of Medicine. The REAP is funded by the VA Health Services Research & Development program to train junior investigators and to foster research collaboration in health services and outcomes. The REAP provides an ideal clinical collaborative research and training environment, with computing infrastructure, methodology expertise, and biostatistical support. Research training for junior investigators is facilitated in bi-weekly conferences that provide interactive learning in research design, methods and data analysis. The REAP is located in Building 32, which houses clinical and health outcomes research in 2500 square feet.

The PVAMC is also the site of the recently re-funded VA/Brown Center for Restorative and Regenerative Medicine, led by Roy Aaron, MD, Professor of Orthopaedics. The goal of the Center is to create bio-hybrid limbs and other unique tools to restore function. There is a particular need for this research in that veterans wounded in the conflicts in Iraq and Afghanistan have returned with devastating limb injuries. Because of improvements in body armor, soldiers are surviving after injuries that would have proven fatal in the past. The Center for Restorative and Regenerative Medicine is a collaborative multidisciplinary research effort between the PVAMC, Brown University, and the Massachusetts Institute of Technology. Research projects include: the development of powered lower leg prosthesis a projected directed by Hugh Herr, PhD, at MIT;

the first clinical trial of a robotic arm and hand, directed by Linda Resnik, PhD, PT, Associate Professor of Community Health at Brown; and a clinical trial of the "Braingate" device in patients with Amyotrophic Lateral Sclerosis, directed by John Donoghue, PhD, and Leigh Hochberg, MD, PhD, of the Departments of Neuroscience and Bioengineering at Brown. The VA is building a 23,500 sq. ft. new, state-of-the-art research space for this VA/Brown Center, an investment of \$6 million by the VA to the Brown University research enterprise. The new facility will be dedicated in January 2010.

Another area of research excellence is the VA and NIH-funded Vascular Research Laboratory (www.brown.edu/Research/Vascular_Research_Laboratory/), consisting of investigators from Pulmonary/Critical Care and Cardiology sections of the Brown Department of Medicine. Alcohol and Addiction research is led by Robert Swift, PhD, MD, Professor of Psychiatry and Human Behavior and Associate Chief of Staff for Research at the VA, and two VA Career Scientists, Peter Monti, PhD, Professor of Community Health and Damaris Rohsenow, PhD, Professor of Community Health. Martin Weinstock, PhD, MD, Professor and Chief of Dermatology at the VA, leads VA and NIH-funded multi-center clinical trials in skin cancer epidemiology and treatment. Dr. Weinstock also leads the VISN1 Teledermatology Program, described in another article in this series. Albert Lo, PhD, MD, Assistant Professor of Neurology, leads VA-funded multi-center trials in the use of robotics in rehabilitation of patients with strokes and in multiple sclerosis. His work is described in another article in this series. Tracie Shea, PhD, and William Unger, Ph. have a research program in **Post-traumatic Stress Disorder (PTSD)**, which afflicts a high percentage of veterans returning from Iraq and Afghanistan.

Thus, the Providence VA Medical Center provides a unique set of services for veteran patients and a practice environment that focuses on quality of care, with resources for education and research.

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The author has no financial interests to disclose.

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