May 2006

Newsletter

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Upcoming Conferences

June 4 - 7, 2006 **AHRQ** Washington DC

June 25 - 27, 2006 AcademyHealth Annual Research Meeting Seattle, Washington

June 26 - 30, 2006 Epidemiology, Biostatistics, and Clinical Research Methods Summer Course Seattle, Washington

July 10 - 12, 2006 AHRQ/NCI Translating Research Into Practice and Policy Conference 2006 Washington, DC

August 8 - 11, 2006 Academy of Management Annual Meeting Atlanta, Georgia

September 15, 2006 VA Nursing Research Conference Dallas, Texas

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RORC TO HOST 2007 HSR&D MEETING

The Rehabilitation Outcomes Research Center will play host to the next HSR&D Service National Meeting in February 2007. The National Meeting provides VA investigators the opportunity to present results of their research to colleagues, clinicians, and policy makers.

The theme of the 2007 meeting will be "Managing Recovery and Health Through the Continuum of Care." The passing of the baton from the Center for Health Equity Research and Promotion (CHERP), the HSR&D Center of Excellence based at the VA Pittsburgh Healthcare System and the Philadelphia VA Medical Center, to the RORC occurred during the closing session of the 2006 meeting. Dr. Pam Duncan, RORC Director, remarked, "It will be a challenge for us to follow in their footsteps... this was a great meeting... but we'll do our best."

The 2-day meeting will feature talks by prestigious VA leaders, keynote speakers, oral and poster presentation of competitively selected abstracts, a variety of workshops, and provide opportunities for networking and collaboration. As in past years, the 2-day

meeting will be preceded by a day-long session for VA clinician and non-clinician career development awardees. Dr. Rebecca Beyth, RORC Associate Director, is Chair of the Career Development Award Planning Committee.

The RORC local planning committee is working with VA Central Office to create a program that is scientifically and professionally engaging to all participants. The meeting is tentatively scheduled for the week of February 12, 2007. The anticipated date for a call for abstracts to be sent out to the research community is the first week of July.



Dr. Pamela Duncan (L) with Dr. Shirley Meehan, Acting Director, HSR&D Service (R) at Closing Session accepting as Host of 2007 Annual Meeting

All RORC investigators and career development awardees are encouraged to begin planning on submitting abstracts of their recently completed and/or ongoing work.

RORC POST-DOC WINS "BEST POSTER" AWARD

Tracey Barnett, PhD, RORC post-doctoral fellow, submitted an award winning abstract to the 2006 HSR&D National Meeting. Her team examined the effectiveness of a VA care coordination home tele-health (CC/HT) program for veterans with diabetes (PI: Neale Chumbler, PhD, funded by VISN 8 Community Care Coordination Service). The research team com-



Tracey Barnett, PhD

pared the differences in health care utilization (hospital admissions, emergency room visits, unscheduled primary care visits, podiatry visits, and ophthalmology visits) for a group of veterans who received the CC/HT program with a matched comparison group of veterans who did not receive the CC/HT intervention over a 24-month period. They found significant differences in hospital admissions 24 months after the program began (p < .05), with the treatment group decreasing 8.88 percentage points while the comparison group demonstrated a slight in-

crease in hospital admissions. Both the treatment and comparison group demonstrated significant reductions in emergency room visits. The lower hospital admission rate for the treatment group after 24 months may indicate better self-management of health conditions and concerns for veterans with diabetes through education and monitoring. Dr. Barnett received a plaque at the HSR&D meeting's closing ceremony for the "best poster" submitted by a post-doctoral fellow. Congratulations, Dr. Barnett, on a job well done.

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HOME-BASED TELE-HEALTH STROKE CARE PROJECT TO BE FUNDED



Neale Chumbler, PhD

Neale R. Chumbler, PhD has focused his research over the last 10 years on identifying and evaluating effective strategies by which to deliver accessible services and to improve patient centered outcomes for frail non-institutionalized older adults. Specifically, his current agenda consists of implementing and evaluating care coordination models, which are enhanced by home tele-health technologies for veterans with disabling, chronic diseases to improve patient centered outcomes (e.g., health related quality of life), avert preventable health services, and assist informal caregivers. Dr. Chumbler, together with Co-Principal Investigator Dr. Helen Hoenig (Durham, NC) received a fundable score on their recently submitted investigator initiated research project to Rehabilitation Research and Development Service entitled, "Home-based Tele-Health Stroke Care: A Randomized Clinical Trial." The project will be funded pending IRB approval.

PROJECT ABSTRACT

Rationale and Objectives: Stroke patients clearly benefit from intensive, coordinated, inpatient care. At the same time, there is considerable interest in ways to reduce hospital lengths of stay. Early discharge rehabilitation programs require coordinated, well-organized home-based rehabilitation, and lack of sufficient information about the home setting impedes successful rehabilitation. Unfortunately, resources for in-home rehabilitation are limited. The purpose of the proposed study is to examine a Tele-rehabilitation (TR) intervention that uses tele-health technology to improve outcomes of stroke patients after discharge to home. The primary aim is to determine the effect of TR on physical function, and secondarily to determine the effect on disability, falls-related self-efficacy, and patient satisfaction.

Research Design: This is a Phase II, 2-arm, 4-site Randomized Controlled Trial (RCT). Subjects will be recruited from 4 VA facilities that differ in the presence of a Rehabilitation Bed Unit (RBU), but are otherwise fairly similar (Tampa, Minneapolis, Durham, and Atlanta VAMCs). The Rehabilitation Outcomes Research Center at the Gainesville VAMC will be the coordinating center. A total of 120 veterans with recent onset of ischemic or hemorrhagic stroke who are discharged to the community will be randomly assigned to one of two groups: (a) TR; and (b) *Usual Care*. We will use a randomized block design, blocking based on presence or absence of an RBU. Randomization will be by centrally-sealed allocation upon discharge to the community. Dependent variables will be measured at baseline, 3-, 6-, and 9-months and analyzed with a repeated measures mixed model.

The goal of TR is to improve functional mobility using a multifaceted rehabilitation intervention delivered via tele-health technology. The TR intervention consists of two components that target safe functional mobility of the individual within an accessible home environment: 1) exercise (targeting underlying stroke-related impairment) and 2) adaptive strategies (targeting external contextual factors to help compensate for extant disability). TR will use a combination of 7 Tele-video visits, an In-home Messaging Device, and telephonic contact as needed over a 6-month study period to provide a progressive rehabilitative intervention with a treatment goal of safe functional mobility of the individual within an accessible home environment. Tele-video uses a mobile, wireless video technology with a home health aid in the patient's home to provide live visual and sound communication from any location in the home between the patient, the home health aid, and a therapist located at the base hospital. It is used to carry out an in-home assessment of functional mobility, to make treatment recommendations, and to provide periodic goal-oriented reassessment, modifying the treatment plan as the patient improves. An interactive, in-home messaging device is used to facilitate adherence with treatment recommendations and to screen for interval problems (depression, falls, and difficulty with self-care). It will interface with the patient daily but briefly, providing the Tele-therapist with up-to-date information on patient performance. This, in turn, allows targeted evaluations of problem areas during Tele-visits, rapid response to new functional problems, and it helps to reinforce exercise adherence. In sum, TR takes advantage of novel technology to deliver a focused rehabilitation intervention that complements currently available post-acute rehabilitation resources.

Expected Contribution of the Research to the VA and Others: The veteran population continues to age rapidly, with consequent increases in care needs. Shorter lengths of stay in the hospital have resulted in a steady rise in the prevalence of secondary complications, difficulties using prescribed AT and wheelchairs, a greater likelihood of subsequent hospitalizations, and a considerable increase in difficulties with ADLs. New ways are needed to manage this growing population's care without compromising VHA's standard of high quality of care. The use of TR to provide home assessments and follow-up training in prescribed equipment, compared to sending a therapist to the patient's home, could save considerable time and expense, particularly when patients live in remote locations, as is the case for many veterans.

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RORC INVESTIGATOR TO EXAMINE OEF/OIF VETS' ACCESS TO REHAB

Research Health Scientist and RORC Assistant Director, **Diane C. Cowper**, PhD received the good news that her proposal 'Geographic Access to VHA Rehabilitation Services for OEF/OIF Veterans' will be funded as IIR project #DHI 06-010-1. The proposal will commence pending Institutional Review Board approval. Members of her research team include: Drs. **Bruce Vogel**, Dean Reker, **Rebecca Beyth**, **Jeanne Hayes**, **Sam Wu**, and Barbara Sigford. Consultants to the project are Cliff Marshall and Gretchen Stephens.



Diane C. Cowper, PhD

PROJECT ABSTRACT

Background/Rationale: With the change in modern warfare and military operations, the injuries sustained by today's soldiers are different from past military engagements. Injuries that probably would have resulted in death in earlier combat engagements are today not as lethal due to advances in military protective gear worn by the troops. As a result of greater survival, however, the returning OEF/OIF veterans may have a greater need for rehabilitation due to residual deficits from traumatic injury, or poly-trauma injury, than any other period of service veterans preceding them. Unfortunately, very little is known about access to rehabilitation services, the rehabilitation needs or patient outcomes of OEF/OIF veterans who sustained injuries while on active duty.

Objectives: The immediate goals of the project are to identify geographic areas (1) where the need for VHA rehabilitation services is greatest, and (2) where there are potential access gaps and unmet need for such services in the returning OEF/OIF VHA patient population. The ultimate goal of the project is to assist in improving access to rehabilitation services to returning OEF/OIF veterans by disseminating information and results from this project to national program directors and decision makers in Patient Care Services and PM&R Service to use in strategic planning for the distribution of scarce rehabilitation resources.

Research Questions: (1) How is the returning OEF/OIF cohort with potential rehabilitation needs distributed geographically? (2) Where are the largest gaps in the provision of specialized rehabilitation services located vis-à-vis the location of these patients? and (3) How does patient distance/travel time to rehabilitation services influence (a) whether rehabilitation services are obtained and (b) the level and volume of rehabilitation services used by this cohort? *Research Objectives*: (1) To identify a cohort of Operation Enduring Freedom (OEF)/Operation Iraqi Freedom (OIF) combat veterans who accessed Veterans Health Administration (VHA) facilities for conditions and injuries sustained while on active duty, merge the identified cohort with VHA workload data sets to obtain socio-demographics, medical diagnoses, and utilization information on these individuals, and to identify a subgroup of veterans who are potential candidates for physical medicine and rehabilitation services; (2) To use Geographic Information System (GIS) tools to ascertain veterans' access to differing levels of VHA rehabilitation and medical services offered to veterans with potential need for rehabilitation services; and (3) To investigate the health services utilization, especially the receipt of both inpatient and outpatient rehabilitation services, provided to these veterans for a one year follow-up period.

Methods: Study design. The design is a retrospective, observational, cross-sectional study of a subgroup of OEF/OIF veterans who accessed the VA health care system during FY-03 and FY-04 and who are identified, based on their ICD-9 codes, as potential candidates for rehabilitation. Major characteristics: The specific groups of interest in this study are veterans who have ICD-9 codes that are associated with traumatic brain dysfunction, traumatic spinal cord dysfunction, traumatic amputation, vision impairment, orthopedic disorders, and burns. Based on preliminary data, we expect to find between 8,000 and 10,000 individuals in these diagnostic categories. Only veterans who received services in VHA are included. Major variables and source of data. VA facility characteristics (i.e., level of care), patient characteristics (predisposing, enabling and need), and travel distance/travel time to the VA facility are the major variables. All information will be obtained from extant VA data sources. Main types of analysis. The analysis plan for this study is divided into two phases. The first phase employs GIS tools to map the location of returning war fighters in relation to where VHA rehabilitation services are available and identifies potential gaps in services (Objectives 1 and 2). The second phase will use a two-part model (logistic regression and Poisson regression) to estimate (1) the receipt of any specialized rehabilitation services; (2) the volume of VHA rehabilitation service use (Objective 3).

Impact: Rehabilitation services are especially important in the VA today given that OEF/OIF veterans are returning with service-connected traumatic brain dysfunction, traumatic spinal cord dysfunction, traumatic amputation, vision impairment, orthopedic disorders, burns and/or poly-trauma injury. Despite this importance, access to specialized rehabilitation services in the VA has been shrinking. Given the value of these services and the dramatic reduction in the number of specialized rehabilitation units in the VA, it becomes critically important that the remaining VA rehabilitation resources are located where there is the greatest need for such services. If new resources are added for rehabilitation services, it is equally important to locate them where they will provide the largest impact in terms of filling service gaps and unmet need.

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RORC MISSION

To enhance access, quality, and efficiency of rehabilitation services through interdisciplinary research and dissemination activities.

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IN MEMORY OF LARRY BRASS, MD

The RORC and Stroke QUERI Center staffs were sadden by the passing of Lawrence "Larry" Brass last month from lung cancer. Dr. Brass served as the Chair of the RORC Advisory Panel and as the Chair of the Stroke QUERI's Executive Committee. Dr. Brass dedicated his career to the problem of stroke, especially stroke prevention and was a nationally recognized expert in this area.

Dr. Brass was known among his colleagues as a magnanimous ambassador for stroke medicine. His colorful personality and clever mind attracted students and collaborators from disciplines as diverse as gynecology and epidemiology. He began his career examining the performance characteristics of imaging in clinical stroke and then designed a clinical trial based on accumulating epidemiologic and basic science evidence indicating a possible role of estrogen therapy in protection against stroke. The National Institutes of Health funded the Women's Estrogen for Stroke Study from 1993-2001. Over the next few years, Dr. Brass was the co-principal investigator on the Hemorrhagic Stroke Project, the largest case control study ever conducted for hemorrhagic stroke, and he became more involved in health services research with studies on racial disparities in stroke care, thrombolysis and anticoagulation among veterans with atrial fibrillation.

As chair for the Stroke QUERI Executive Committee, he provided outstanding leadership and established key collaborations with external organizations and projects. In addition to his many contributions to HSR&D, Dr. Brass was Professor of Neurology and Professor of Epidemiology and Public Health at Yale University School of Medicine, and Director of Cerebrovascular Research at Yale-New Haven Hospital.

Dr. Brass was Chief of the Neurology Service at VA Connecticut Healthcare System. He published numerous articles in the areas of stroke, neurology, outcomes measurement and assessments, quality of care, and pharmacotherapy. And, in addition to his leadership on the Stroke QUERI Executive Committee and the RORC Advisory Panel, he served on committees such as the American Heart Association's Quality of Care and Outcome Executive Committee, and the Prevention Board of the National Stroke Association.



Pam Duncan (L), Larry Brass (C) and John Booss (R) share a laugh at the RORC Advisory Panel Meeting in Gainesville

Larry Brass will be greatly missed as an exceptional researcher, mentor, colleague, and friend. We extend our deepest sympathy to his family.

STAFF NEWS

Welcome aboard to Jackie Wilkerson who joined the RORC team last month. Jackie will be assisting Becca Beyth with grants, mock review scheduling, and IRB paperwork; Elena Andresen with the Career Development Award program; and Diane Cowper with planning the 2007 HSR&D National Meeting.

Congratulations to Jolie Haun, Research Assistant, on her recent engagement. Also joining the "soon to be married" is Dr. Arlene Schmid, former RORC research assistant, now working with the Stroke QUERI Clinical Coordinating site in Indianapolis.

Maude Rittman, PhD, RN, recently received recognition and an award from the Veterans Helping Veterans, Inc., in Marion County in appreciation of her exceptional dedication and service to the veterans of Florida on April 7, 2006. Dr. Rittman was the founder of the Vets Helping Vets Program which celebrated its 10-year anniversary at a community breakfast in Ocala, Florida.

Our staff bids farewell and best wishes to a number of staff members who have left, or will soon be leaving the RORC, including: Amber Waters, Sonya Starling, Wanda Hines, Evelyn Zheng, and Ellen Esparolini. We hope you will remember us and visit often... you will be missed.