



**Parkinson's
Disease**
Research,
Education &
Clinical Center
Houston, Texas

PADRECC PATHWAYS

HHouston Parkinson's Disease Research, Education and Clinical Center
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Parkinson's Research at the Houston VA Medical Center PADRECC

As Associate Director for Research at the Houston VA Medical Center PADRECC, I have the privilege of bragging about what people at the Houston PADRECC are accomplishing in research on Parkinson's disease (PD). The expertise and interests of PADRECC researchers span topics from molecular biology to quality of life issues. We also collaborate with other research and academic centers (University of Texas School of Public Health, Texas Woman's University).

Our research in deep brain stimulation has been featured previously in this newsletter. I will take the opportunity to summarize a few of our other research projects:

Incidence of PD in Veterans

In this study funded by VA Medical Research and Development, we are examining the incidence of PD among veterans in the Houston area. Incidence rates are being calculated and compared across different ages and ethnic groups. Studies such as this one can identify clues as to the causes of PD.

Health Care Use in PD Patients

This study examines the effect of patient factors such as age and illnesses on health care use by patients who have PD. This database study is the first to evaluate the health care use of persons with PD who are served by the VA. The results will be important in projecting veterans' future health care needs.

Supported Treadmill Training

Problems with walking are the most common disabling conditions in PD. In this study, participants are fitted with a harness attached to a pneumatic support system over a treadmill. The harness supports the patient as he/she walks on the treadmill. If this intervention is successful, it would be an innovative method for treating gait and balance problems.

Bone Marrow Transplantation

This study is part of a larger project funded by the National Institutes of Health. Transplanting bone marrow into rats improves neurological outcome in rodents with brain injury. This study evaluates application for treatment of PD patients.

Study of Energy Expenditure

Excessive weight loss can be a substantial problem for persons with PD. The purpose of doubly-labeled water experiments is to calculate how much energy a person uses by measuring the amount of water consumed in respiration. This study will examine the daily energy expenditure of subjects who have PD and evaluate its contribution to weight loss.

And this is not all. In future newsletters I will describe these projects in greater detail and give a preview of research under development.



*Karon Cook, PhD, Associate Director
of Research, Houston PADRECC*

Rehabilitation Services for Patients with Parkinson's Disease: The VA Process

The goals of rehabilitation of individuals with Parkinson's disease are to maximize function and independence while maintaining safety. During your initial therapy visits, you will receive an evaluation pertinent to the particular therapy. The therapist uses the evaluation results along with your goals for rehab to determine your specific treatment plan.

Physical Therapy will focus on range of motion, posture, balance, and mobility, and may include stretching, postural exercises, balance, and coordination activities. The physical therapist will evaluate your ability to walk and determine the most appropriate and safest method of walking. This may include instruction in the use of adaptive equipment such as a cane as well as techniques such as using visual cues

or a metronome to improve your ability to initiate movement.

Kinesiotherapy will usually include general conditioning exercises that aid in mobility and overall well-being. They may also provide training in walking and the use of an assistive device if indicated. They may instruct you in a stretching and strengthening program to continue at home.

Occupational Therapy will address difficulties with self care. They will instruct you in alternative methods or suggest and train you in the use of adaptive equipment to complete such activities as eating, bathing, grooming, dressing, toileting, cooking, cleaning, and other household tasks.

Therapeutic Recreation works with you to improve function and

independence while reducing or eliminating the effects of illness or disability. They assist you with incorporating activities and social interaction in your life as well as teaching adaptation of activities and equipment, teaching the skills to pursue your interest and how to access community resources.

Patient and family education is a key part of rehabilitation. Patients are generally instructed in a home exercise program to continue after the course of therapy has ended. Family or caregivers are asked to attend therapy sessions to learn how best to help you achieve maximum function while maintaining safety.

Ruth Zabransky, OTR, Supervisor of Rehab Therapies, HVAMC



Physical therapy, kinesiotherapy, and occupational therapy staff pictured left to right. Front row: Betty Baer, Shirley Caesar, Eva Anger, Laura Lawhon, and Adell Tardy. Second row: Teresa Kessel, Sterling Carter, Ruth Zabransky, Vera Mech, and Roger McDonald.

Speech Therapy Benefits Patients with Parkinson's Disease

Do people ask you to repeat what you just said, or tell you should talk louder? Do you sometimes think your spouse or best friend needs a hearing aid? If your answer is "yes" to these questions, you may have speech and voice changes related to Parkinson's disease (PD). The same symptoms that can occur in your arms and legs like slow movement, rigidity, and tremors, can also take place in your speech.

PD can affect breathing, voice production, the richness of the voice, and clarity of speech. Sometimes people with PD take shallow breaths, less frequent breaths, or have problems coordinating breath and speech.

The vocal cords (small muscles that open and close quickly when we talk) are located in the voice

box or larynx. Changes within the voice box can reduce the loudness of speech, resulting in a soft voice or may cause your voice to be unsteady. People might frequently ask you to talk louder or raise your voice. The richness of speech can change when the soft palate moves inadequately.

Sometimes the words may not be clear and distinct because the muscles of the face, lips, tongue, and jaw are not well coordinated.

A speech-language pathologist (SLP) is a healthcare professional trained to evaluate and treat patients with the above problems. Some are trained to treat patients with PD using the Lee Silverman Voice Treatment Technique (LSVT), a method founded by Dr. Lorraine Ramig, a speech-language pathologist. The LSVT

technique focuses on vocal loudness and exercises muscles of the voice box and speech mechanisms. The treatment is intensive and requires four sessions a week for 4 months.

It is important for patients with PD to seek speech treatment when problems first develop, but it is never too late. If you have any of the difficulties mentioned above, ask your physician for a referral to a qualified speech-language pathologist.

The PADRECC will host a speech therapy conference for veterans and their families in January here at the Houston VA Medical Center. We will provide you with more information as the date approaches.

How long does your DBS stimulator work after you turn it off?

The PADRECC is studying how long the beneficial effect of the DBS stimulator lasts after it is turned off. This study will also compare the length of the effect of two different target areas in the brain (globus pallidus or subthalamic nucleus).

Study participants will be asked to come to the Houston VA Medical Center for one 3-hour visit. During this visit, participants will be tested with their stimulators turned off, then on, then off.

Participants will receive free laboratory motor tests and will be paid \$50.00 for time and travel to participate in the study. Services will be provided free of charge.

If you have questions or are interested in participating, please call Michele K. York, PhD at 713-794-8939.



Director's Corner

I want to take the opportunity to give you an update on our PADRECC activities at the Houston VA Medical Center. I am pleased to report that we accomplished all of our first year performance goals, including the establishment of our PADRECC clinics for veterans with Parkinson's disease and related movement disorders, the initiation of our deep brain stimulation surgery treatment study, and the organization of a clinical referral network within VISNs 15, 16, and 17. Our research efforts are also on target.

Over 200 veterans, families, and health care providers attended our May Symposium on

Parkinson's disease. We designed and distributed informational brochures and other educational materials to patients, families, and health professionals, launched both national and local PADRECC websites, and hosted a weekly seminar to educate VA staff on the different aspects of Parkinson's disease (PD) and other movement disorders.

As well as these ongoing activities, we have some exciting events planned for next year, including clinical trials, research studies, patient and family educational conferences and activities on PD, and continuing education courses for health professionals. In addition to other grant applications, we have applied for funding for study of the incidence of

PD in Vietnam war veterans.

We will alert you to upcoming PADRECC events through our newsletter, special mailings, and our local website (www.va.gov/padrecc_houston/). I look forward to seeing you at our next patient/family conference.



*Eugene C. Lai, MD, PhD
Director, Houston PADRECC*

The Warmth of Sharing

The warmth of the summer season inspires not only sun-drenched activities such as swimming and golf, but also the inner-workings of the hearts of Mr. and Mrs. Maxwell Farber. Mr. Farber, a veteran enrolled in PADRECC, and his wife, Helen, participated in the National Youth Leadership Forum on Medicine in Houston two evenings in July accompanied by the PADRECC Co-Associate Directors of Education, Marilyn Trail and Dr. Naomi Nelson. The Forum, held at selected medical centers, offers an intense exploration of medicine for high school students from throughout the United States.

Mr. and Mrs. Farber led the student seminars and shared their

experiences on Parkinson's disease and aging. The teenagers listened to stories of Mr. Farber's WWII service, his electronics career, and his love of poetry and humor. The couple answered questions with candor and respect.

The students commented, "When we become adults, we hope to be as accepting as you are

of people and ideas," and "We have learned so much about Parkinson's disease and how patients and families are able to live positively each day." They joined the Farbers for dinner and further discussion.

"We want to give back to future generations as those before gave to us," said the Farbers.



Mr. and Mrs. Maxwell Farber (center) with student leaders.