

M INSIDE MossRehab

News, research and best practices from one of the nation's leading rehab providers

WINTER 2009

MossRehab Awarded Three-Year CARF Accreditations

As part of MossRehab's ongoing commitment to quality and transparency, we choose to undergo triennial reviews by the Commission for Accreditation of Rehabilitation Facilities (CARF). This year, we are proud to announce that CARF's comprehensive survey and inspection of all of our operations has resulted in three-year accreditation for a total of 15 MossRehab programs. MossRehab now has more CARF-accredited programs than any other rehab provider on *U.S. News & World Report's* "Best Hospitals" list. The CARF-accredited programs include:

- Home- and Community-Based Rehabilitation Programs: Brain Injury Program (Adults)
- Home- and Community-Based Rehabilitation Programs: Brain Injury Program (Children and Adolescents)
- Inpatient Rehabilitation Programs – Hospital (Adults)
- Inpatient Rehabilitation Programs – Hospital: Amputation Specialty Program (Adults)
- Inpatient Rehabilitation Programs – Hospital: Brain Injury Program (Adults)
- Inpatient Rehabilitation Programs – Hospital: Brain Injury Program (Children and Adolescents)
- Inpatient Rehabilitation Programs – Hospital: Spinal Cord System of Care (Adults)
- Inpatient Rehabilitation Programs – Hospital: Spinal Cord System of Care (Children and Adolescents)
- Inpatient Rehabilitation Programs – Hospital: Stroke Specialty Program (Adults)
- Outpatient Medical Rehabilitation Programs – Multiple Service: Brain Injury Program (Adults)
- Outpatient Medical Rehabilitation Programs – Multiple Service: Brain Injury Program (Children and Adolescents)
- Outpatient Medical Rehabilitation Programs – Multiple Service: Spinal Cord System of Care (Adults)
- Outpatient Medical Rehabilitation Programs – Multiple Service: Spinal Cord System of Care (Children and Adolescents)
- Residential Rehabilitation Programs: Brain Injury Program (Adults)
- Vocational Services: Brain Injury Program (Adults)

CARF also cited many areas where Moss demonstrated exemplary performance, particularly in our many advocacy programs for persons with physical disabilities. Together, we believe these achievements exemplify our dedication and commitment to improving the quality of life for our patients.



CHAIRMAN'S MESSAGE

Over the last few months, economic realities have proven that the healthcare industry is hardly "recession-proof." All across the country, rehab providers are facing significant financial hurdles as budgets are slashed and grants withdrawn.



But despite these challenges, we cannot allow ourselves to slow down. The population we serve needs our help today just as much as they did before this economic crisis started.

MossRehab endured the Great Depression, and we will endure this recession. We remain just as committed to our patients as we were during healthier economic times. Our focus is on meeting the demand for rehabilitation care, and projects directly related to this mission will continue unabated. We will maintain our existing patient care capacity, and have recently invested in upgrading facilities, opened a new multi-specialty suite and acquired additional office space to expand the availability of clinical services for patients with physical disabilities.

As the next few years unfold, many organizations may be required to make tough decisions. As physiatrists, I know we can depend on one another to look out for the patients who depend on us.

A handwritten signature in black ink that reads "A. Esquenazi".

Alberto Esquenazi, MD

*Chair and Professor, Department of Physical Medicine & Rehabilitation;
Chief Medical Officer, MossRehab*

Dr. Esquenazi was elected secretary of AAPM&R and began his two-year term at the Annual Meeting in November 2008.

In Theory and Practice: Moss Rehabilitation Research Institute

For many rehab providers, research remains secondary to treatment. Scientific inquiry—both time-consuming and expensive—must be relegated to the background due to the enormous demands of the clinic. At MossRehab, however, a team devoted entirely to research operates within the infrastructure of the rehabilitation hospital. Collectively called the Moss Rehabilitation Research Institute (MRRI), these researchers work side-by-side with MossRehab's many clinicians, and the two groups have developed a true symbiotic relationship, sharing both patients and knowledge over the years.

Founded in 1992 by director John Whyte, MD, PhD, and associate director Myrna Schwartz, PhD, the Institute has conducted research projects running the gamut from basic cognitive science to applied interventional rehabilitation research. Their main topics of inquiry cover a wide range of clinical areas, with a particular emphasis on language and aphasia, attention problems over time and space, disorders of consciousness, macro-outcomes related to traumatic brain injury and skilled action.

Over the years, the researchers at MRRI have added several key concepts to the body of rehabilitation literature. Dr. Whyte's responsiveness studies showed that certain research methods applied during clinical evaluation could definitively determine if patients with disorders of consciousness were following commands. Language researchers at MRRI have developed or studied a number of theoretically-motivated treatments for aphasia, including MossTalk Words®, a computer-assisted treatment program, and Sentence-Shaper®, an augmentative communication device. The Aphasia Center, under the clinical direction of clinician researcher Ruth Fink, MA, CCC-SLP, utilizes these and other research-based treatments and embeds patients in a supportive social milieu while they receive services. The Naturalistic Action Test (NAT), developed by Dr. Schwartz and research scientist Laurel Buxbaum, PsyD, shifted neuropsychological assessment from traditional pen-and-paper tests to a series of real-life tasks, such as sandwich making, with a standardized scoring system. A study published in *Neuropsychological Rehabilitation* showed the NAT had stronger predictive validity for patient function than traditional tests.



John Whyte, MD, PhD with patient.

Researchers Benefit from the Clinic

Being embedded within a large rehabilitation hospital provides several benefits for the researchers at MRRI. With 197 beds at MossRehab and care teams assigned to each diagnosis, the most evident advantage is easy access to large groups of patients with similar diagnoses.

For most of her career, Dr. Buxbaum has studied hemi-spatial neglect in her Cognition and Action Lab. Thanks to a steady presence of right hemisphere stroke patients, she was able to develop a Virtual Reality Lateralized Attention Test (VRLAT), a highly sensitive tool for assessing neglect. Now, having shifted her attention to the treatment of neglect, Dr. Buxbaum plans to develop a Right Hemisphere Stroke Center at MossRehab, a true translational treatment center in which research findings will be applied in the clinic. Patients will undergo treatment with wedge prism lenses, which shift visual attention to the left, as well as with stimulant medication where appropriate, and will be measured at baseline and discharge with the VRLAT to monitor improvement.

"We will be using evidenced-based treatments and an assessment method that was developed under research protocols conducted here at MRRI," said Dr. Buxbaum.

Indeed, having her lab operate within the confines of a large rehabilitation hospital has been, and continues to be, an immense boon to Dr. Buxbaum's research. But working so closely with practicing clinicians has provided a second, less immediately apparent benefit: a change in perspective.

"The members of MRRI believe that interacting with clinicians who treat patients every day grounds us in what the needs of those patients really are," Dr. Whyte said. He cited an anecdote of a bioengineering expert who had developed a device that would remind persons with brain injury to perform certain tasks. If the patient went into the bathroom, for example, the device would remind him to brush his teeth. But Dr. Whyte, having witnessed firsthand these patients being cared for in the clinic, surmised that the device was impractical. "The real question," he said, "was what gets the patient into the bathroom in the first place?"

Clinicians Benefit from MRRI

For MossRehab clinicians, the presence of MRRI provides an outlet for creativity and inquisitiveness that is often absent from the standard clinical environment, which under current productivity requirements can become intensely monotonous. "There's a risk



Screen capture from the Virtual Reality Lateralized Attention Test

that clinicians who are more creative, more inquisitive, more analytical, will not be happy doing that forever,” Dr. Whyte said. “But if you embed that within an environment where there are discussions about how to conceptualize these problems and learn more about what we don’t know, that provides a level of intellectual stimulation that attracts good clinicians as well as good researchers.”

And just as MRRI researchers have benefited from the practical lessons of the clinic, MossRehab clinicians have benefited from the strict analytical thinking of their researcher colleagues.



“Sometimes clinicians arrive at conclusions that are not supported by the evidence in front of them,” Dr. Whyte said. “We’ve introduced the analytic thinking of research into the clinic so our clinicians won’t make logical errors that ultimately have very concrete effects on patients.”

Dr. Whyte cited an example in the use of PRN tranquilizers on patients with behavioral disturbances. He explained that clinicians tend to have disproportionate faith in these drugs because they

administer them when a patient is at his or her worst. By choosing to intervene at the peak of the patient’s behavioral disturbance, he explained, the clinician will always see a positive result because the patient can only get better at that point in time.

“When a clinician and I agree on a different way to assess a PRN drug, we often find that it’s not as effective as once thought,” he said. “By applying analytic thinking to clinical practice, we have really changed clinicians’ perspectives on a problem, just as applying clinical experience to research has grounded some loftier ideas in reality.”

Looking Forward

As 2009 begins, MRRI finds itself on the brink of expansion. New office space recently acquired on the MossRehab grounds will allow new programs to be created while reuniting current programs on a single campus. MRRI has received approval to develop a new program on Motor Control and Mobility Rehabilitation, which will parallel and complement its current program on Cognitive Neuroscience and Cognitive Rehabilitation. Dr. Whyte recently announced the hiring of Steven Jax, PhD, an expert in motor learning after stroke who will work in both the new motor control program and the existing cognitive program. Plans are in place to hire three to four more investigators over the next few years.

Answering the Call: MossRehab Helps Outpatients Stay Connected with Lifelong Living Programs

When persons are discharged back to their homes following an acute inpatient rehab stay, celebration can quickly give way to bewilderment. Even after months or years of functional improvement, they may be stunned by the difficulty of common household tasks. Worse still, some may experience a profound sense of isolation, as they discover that participating in social events has become considerably more difficult.

MossRehab understands that being discharged, while certainly a significant milestone in a person’s recovery, is ultimately just another step in their journey. That’s why we conduct several post-discharge telephone surveys of our former inpatients to ensure they are experiencing a satisfactory recovery—both physically and emotionally.

For many years, our follow-up surveys asked patients questions about the durability of the outcomes they achieved—for example, the degree to which disability was hampering their return to daily activities and if they had had any additional hospitalizations. Data was collected and reviewed, yet it was difficult to use the data in a meaningful way. In 2007, members of the Advisory Board of

MossRehab suggested an idea for improving the survey process. After soliciting feedback from several stakeholders, including persons with physical disabilities and a panel of former MossRehab patients, the survey was revised and piloted using specific questions focusing on quality of life issues. Among the questions added were:

- What do you think would help you participate in more activities?
- Are you interested in information about support groups?
- Are you interested in volunteering at MossRehab?
- Are you interested in information about adapted sports, wheelchair sports, or other activities?

The results of the new survey showed our patients had a strong desire to reconnect with community resources and with MossRehab. At 48 hours post-discharge, all 101 patients who were surveyed requested information on outpatient services and were referred. At three months post-discharge this number had dwindled some, but more patients asked to volunteer for MossRehab, wanted to join our support groups, or requested information about sports groups, adapted fishing groups and our scuba driving program.

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Congratulations to Heather Havlik of North Carolina for winning our iPod raffle at AAPM&R's Annual Meeting in San Diego.

Patient Demand Spurs New Programs

This increase in demand, coupled with MossRehab's reputation for superior patient outcomes, spurred MossRehab to initiate three new outpatient programs in 2008 that allowed patients to continue their recoveries in supportive, social environments. Collectively called the Lifelong Living Programs, these programs are funded entirely through grants from the Albert Einstein Society, an internal foundation that operates within Albert Einstein Healthcare Network.

"As we discovered from our revamped post-discharge survey, many former inpatients wanted to reconnect with MossRehab—for the purpose of both continuing physical rehabilitation and for establishing a social connection with other person with disabilities and our therapists," said Julie Hensler-Cullen, RN, MSN, director of education and quality. "The Lifelong Living Programs are the latest addition to our growing repertoire of innovative outpatient programs that help them accomplish just that. They provide the physical benefits of outpatient rehab under the direction of a trained therapist, while simultaneously emphasizing social interaction."

Enhance Through Dance

This program uses social dance as a means to develop core stabilization, posture, balance and coordination. Created by MossRehab physical therapist Kathleen Myers, DPT, the eight-week course teaches such dances as basic swing, foxtrot, cha-cha, rumba, or merengue. "It's great exercise, and it's a social activity, helping patients connect with others facing similar challenges. People with limitations can dance in this group without feeling self-conscious," said Myers.

Instructors provide a model of normal movement both visually and kinesthetically. Physical therapy principles are emphasized throughout the instruction, with feedback given by the physical therapist instructor. The target populations are ambulatory individuals, age 18 years or older, with impairments related to orthopaedic or neurological diagnoses. These individuals have completed a course of outpatient physical therapy, and have been instructed to continue regular exercise in order to maintain gains made in therapy and promote further recovery.

Fitness for Life

This exercise program is designed for persons with spinal cord injuries—both paraplegics and tetraplegics (C5 and below)—who have finished therapy but still have lifelong fitness needs. Exercises are designed to address problems associated with long-term manual wheelchair use. Key goals are the reduction of shoulder pain, and increase of flexibility, strength and cardiovascular endurance. Members use the VitaGlide machine to strengthen their scapular muscles and reduce shoulder pain

"In addition to the benefits of exercise, our members love the opportunity to socialize with other stroke patients in their community," said Allison Bell OTR/L, the MossRehab occupational therapist who founded Fitness for Life. "Members are also invited to attend an inpatient spinal cord injury support group that precedes the exercise program. There they act as peer mentors for our inpatients, which gives them the opportunity to be altruistic and help others in the same situation."

Survivors: In the Pink

This exercise class for breast cancer survivors combines step aerobics, resistive training and stretching, all geared to address common deficits following breast cancer treatment. Survivors: In the Pink, conducted under the direction of a physical therapist, is meant to serve as a stepping stone for breast cancer survivors, providing education and empowerment to initiate or resume independent, unsupervised exercise. Participants are provided handouts that contain pictures and a written description of each exercise in order to aid performance with proper technique. Every participant wears a heart rate monitor throughout each session to ensure the patient is working within his or her safe physiological limit.

"Many of our members said other cancer support groups had left them feeling emotionally drained," said founder Tricia Crane, DPT, a MossRehab physical therapist. "By combining the social aspect of a support group with a physical outlet like exercise, we aim to provide them with the best of both worlds."

MossRehab to Perform Exclusive U.S. Trial of ReWalk™

MossRehab will soon begin the exclusive U.S. clinical trial for a new assistive technology called the ReWalk. The ReWalk is a motorized exoskeleton suit that enables patients with lower limb disabilities, including complete paralysis, to independently engage in ambulatory activities, such as standing, walking and in some cases climbing stairs. The ReWalk consists of a lightweight wearable brace support suit, motorized joints, rechargeable batteries, an array of sensors and a computer-based patient control system. Worn around the legs, chest and back, it fits closely to the body on top of everyday clothing. Patient stability during ambulation is provided by concurrent use of crutches.

The study, to be conducted under the direction of Alberto Esquenazi, MD, will be a single-center, open, non-comparative, non-randomized study of the safety and performance of the ReWalk. The overall objectives and endpoints of this clinical trial are to establish the safety and performance of the ReWalk suit and demonstrate initial efficacy and user satisfaction. A preliminary trial has been conducted in Israel to demonstrate safety. Availability of the device for clinical use is dependent upon FDA approval.

The ReWalk was developed by Argo Medical Technologies, a medical device company located in Haifa, Israel. For more information, contact Nancy Dawes at ndawes@einstein.edu or visit www.MossRehab.org.

