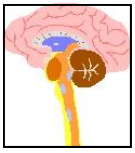
Stroke of Genius



APTA Neurology Section: Official Newsletter of the Stroke Special Interest Group

Message From Our Chair

Volume 11, No. 2

December 2006

Welcome to this edition of the Stroke Special Interest Group's newsletter! It has never been a more exciting time to be a neurologic physical therapist. The past year has seen incredible advances in the science of our practice. No better example of this exists than the recent publication of the main findings from the Constraint Induced therapy trial or EXCITE[1]. This work represents the first national randomized clinical trial to test a novel rehabilitation intervention. Further it was conceptualized, led, performed and published by physical therapists! (Little known fact, a small grant from the Neurology Section facilitated the initiation of this project. Your membership dollars at work!) Most importantly, however, this clinical trial provides critical insight into how best to structure upper extremity rehabilitation for a segment of the population with stroke. The Stroke SIG at CSM in February will highlight other cutting edge findings regarding rehabilitation after stroke. We will host Judith Deutsch PT, PhD as she shares her work in Motor Imagery in people with stroke at our SIG meeting. Based on your feedback, we also have put together a roundtable presentation and discussion of the ICF model that will consider all the questions you have been afraid to ask!

If you are not able to join us in Boston this year for CSM we still have information available for you on our website (http://www.neuropt.org/sigs/stroke/SIG-stroke2.cfm). We recently have added a resource list for therapists to use as they prepare for the NCS exam. Additionally, we have compiled an updated list of web-based resources for researchers, clinicians, and clients alike as they seek information about stroke. We also have big plans for 2007. Look for the publication of topic or "white" papers on stroke that may be used to educate the community about what physical therapists can accomplish during rehabilitation. Also, we are working to share information and resources with our international colleagues. This has already begun and one wonderful new resource is the StrokEngine (http://www.medicine.mcgill.ca/strokengine/). Last, we are hoping that in 2007 we will be allowed to make our website open to everyone on the Internet, not just our members. This change should allow us to develop information for clients, policy-makers and share resources with clinicians who are not yet members of the neurology section.

Finally, we want to hear from you! What can the Stroke SIG do to aid your clinical practice? What information do you need to optimize rehabilitation? What web-resources are useful and do new ones need to be developed? It is a great time to be a neurologic physical therapist, and I am confident that as we conduct more research trials, share and implement our findings, and educate our community and clients, things will only get better!

Bests wishes for 2007,

Lara Boyd, PT, PhD

Chair Stroke SIG

1. Wolf SL, Winstein CJ, Miller JP, Taub E, Uswatte G, Morris D, Giuliani C, Light KE,

Inside this issue:

Message from the Chair	*1*
EXCITE-ing News for Individuals with Stroke	*2*
CSM Educational Opportunities	*3*
Call for Nominations	*3*

EXCITE-ing News for Individuals with Stroke!

By Bernadette Currier, DPT, MS, NCS

Results of the Extremity Constraint Induced Therapy Evaluation (EXCITE) trial, a prospective, single-blind, randomized, multi-site clinical trial, have revealed promise for improvement in arm motor function following stroke. EXCITE has represented the first multi-site clinical trial to evaluate the potential for individuals 3-9 months following their first stroke to improve arm motor function as reflected primarily by the Wolf Motor Function Test (WMFT) and the Motor Activity Log (MAL.) Conducted over a 5 year period at seven clinical sites across the United States, 222 subjects who had experienced a first stroke within 3 to 9 months and demonstrated the ability to initiate finger and wrist extension were enrolled in the study. The subjects in the control group of the trial received "usual and customary care" which was tracked through participant reports. The subjects in the experimental group received constraint induced movement therapy, and were encouraged to wear an instrumented safety mitt on their less-impaired upper extremity for 90% of their waking hours over a period of 2 weeks. In addition, for up to 6 hours on each weekday of the 2 week period, subjects received shaping (adaptive task practice) and standard task training of the paretic limb. One hundred sixty-nine participants were available for the 12 month assessment following intervention. Primary effects of CIMT revealed significant differences for the CIMT groups compared to the control groups for all upper-extremity outcome variables. In addition, clinically relevant improvements were also found for the CIMT group, and all improvements were present immediately following the 2 week intervention as well as 1 year following intervention. The results of this study support the implementation of CIMT for the improvement in arm motor function for individuals 3-9 months following stroke who are able to initiate finger and wrist extension.

For further information on the EXCITE trial, please refer to:

Wolf SL, Winstein CJ, Miller JP, Taub E, Uswatte G, Morris D, Giuliani C, Light KE, Nichols-Larsen D. Effect of constraint-induced movement therapy on upper extremity function 3 to 9 months after stroke: the EXCITE randomized clinical trial. *JAMA.* 2006 Nov1;296(17):2095-104.

http://www.excite.wustl.edu

CSM in Boston! Don't miss it!

Myelin Melter Business Meeting and reception and 30th Anniversary Gala; Friday, February 16 6-11

Hot Topics: Neurology

Neuromuscular Impairment, Diagnoses & Related Pathokinesiology (Pre-conference Course, February 13-14)

Plasticity Along the Neural Axis: How Should it Affect Our practice? (Pre-conference Course, February 13-14)

Stroke SIG Programming

Stroke SIG Business Meeting: Friday, February 16, 2007, 3-4:30pm

Topic: Motor Imagery and Brain Imaging in Individuals Post-stroke

Speaker: Judith Deutsch, PT, PhD

Roundtable: Saturday, February 17, 2007, 3:00-5:00 pm

Topic: Putting the ICF in to Practice: Where do the Assessment Tools Fall?

Facilitators: Ann Medley and Suzanne Tinsley

Stroke Related Programming

Thursday, February 15

- It's Not All About Arms and Legs: research Findings and Clinical Implications for Treating the Trunk Post-stroke

Friday, February 16

- Avenues to Understanding and Inducing Neuroplasticity: What Can We Learn From Transcranial magnetic Stimulation
- Strength Training Effectiveness Post-stroke
- The Neurologist—Neurorehabilitation Physical Therapist Interface: A Meeting of the Minds in Stroke

Saturday, February 17

- Two Applications of Constraint-Induced Therapy in the Outpatient Setting and Constraint-Induced Therapy in the Acute Inpatient Rehabilitation Setting
- Thematic Poster II: Motor Learning
- Thematic Poster III: Upper Extremity Control
- Neurology Section Platform Presentations—Session II: Postural Control
- Neurology Section Roundtables

Here are just a few stroke-related platform presentations

- Alterations in Joint kinematics Following Locomotor Training in Individuals with Chronic Stroke
- Self Selected Walking Speeds are Energy Inefficient Post-Stroke
- The Attentional Requirements of Standing and Walking in Patients Completing Acute Inpatient Rehab after a Stroke

Here are just a few stroke-related poster presentations

- Middle Cerebral Artery Stroke Impairs Transfer of Learning for Complex but Not Simple Motor Sequences
- Generalization of Repetitive Bilateral Training in Stroke
- Mental Practice Increases Affected Arm Use and Function in Chronic Stroke
- The Stroke Exercise Program: An Evidence-Based Model for Group Intervention in an Academic Setting
- Effects of Backward Walking Training on Neuromuscular Efficiency in Gait in an Individual Post-stroke

Call for OFFICERS: Stroke SIG Positions

The Nominating Committee is looking for members interested in the opportunity to serve as an officer of the Stroke Special Interest Group. Officers direct the activities of the SIG including development of CSM programming, member outreach, and promotion of best practice. Being a Stroke SIG officer is an excellent way to serve the APTA while focusing specifically on issues that affect you and your patients. This year we have only one open position, Vice Chair (3 year term).

Please, contact a nominating committee member for more information or to nominate yourself or a peer. We look forward to hearing from you. The deadline for submitting nominations is March 1, 2007.

Nominating Committee:

Walter Weiss, PT, MPT, NCS (Chair)

wweiss@ladhs.org

Bernadette Currier, PT, NCS, DPT

bcurrier@usc.edu

Patricia Kluding, PT, PHD

Pkluding2kumc.edu