Management of the Neurologic Upper Extremity, with a Focus on the Hand: An Evidence-Based Approach with Practical Solutions

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Wesley M. & Suzanne S. Dixon
Education and Training Center

November 11-12, 2016
Rehabilitation Institute of Chicago
345 East Superior Street
Chicago, IL  60611

Rehabilitation Institute of Chicago has been ranked “Best Rehabilitation Hospital in America” every year since 1991 by U.S. News & World Report.
Management of the Neurologic Upper Extremity, with Focus on the Hand: An Evidence-Based Approach with Practical Solutions

THE BEST REHABILITATION HOSPITAL... MEANS THE BEST REHABILITATION EDUCATION.

The RIC Academy is the not-for-profit, educational arm of the Rehabilitation Institute of Chicago (RIC). We are dedicated to advancing the ability of healthcare professionals by sharing the latest scientific discoveries and clinical practices that are changing outcomes for patients around the globe.

The Rehabilitation Institute of Chicago (RIC) is ranked the “Best Rehabilitation Hospital in America,” in part because it fully integrates research, clinical care, and education, through the Continuing Education (CE) programs offered by the RIC Academy.

COURSE DESCRIPTION

One of the most challenging and frustrating issues that rehabilitation professionals confront is their patient’s loss of hand and arm function following an insult to the brain. Even with early rehabilitative intervention, a significant proportion of the neurological population will continue to have lasting sensorimotor impairments that if left unmanaged will continue to present further secondary impairments.

This comprehensive blended course will present evidence-based and practical solutions for neuromotor and sensory issues that beset patients with neurologic conditions (especially stroke). Evaluations and innovative approaches to commonly used interventions such as splinting, modalities and task-specific training will be discussed with evidence and clinical reasoning throughout the course. Course participants will be provided with useful tools for implementation of interventions for managing the neurologically impaired hand and arm. Teaching strategies include: on demand self-study webinars, demonstrations, lectures, workshops, case studies, and problem solving. Workshops will include experiences with evidence based evaluations and interventions. The course is designed for those whose caseloads include persons with stroke and related neurological conditions.

Successful completion:
Participants will complete 2.0 hour of self-study activities in advance of the course (earning 14.25 contact hours in total.) These self-study activities for the course will consist of 2 recorded webinars to better develop the foundational knowledge that will be necessary for the live workshop. After registering for the course, you will be notified by email when online materials will be available. During the onsite portion of the course, participants must sign in and complete an online evaluation.

WHO SHOULD ATTEND

Physical Therapists, Occupational Therapists, Physical Therapist Assistants, Occupational Therapy Assistants

COURSE OBJECTIVES

Upon completion of this course, participants will be able to:
- **Describe** and identify common complications and issues associated with the neurological hand
- **Analyze** the neurologically impaired arm and hand using biomechanical and motor control approaches
- **Describe** selected measurements and tests specifically used for the hemiplegic UE
- **State** scientific, theoretical and evidence-based supports to interventions that address the various functional levels of the neurological upper extremity (mirror, therapy, task specific, e-stimulation, splinting)
- **Practice** selected evidence based intervention for the Neurologic UE
- **Identify** selected therapy implications related to medical management of the hemiplegic UE
- **Develop** an intervention plan that addresses common issues associated with the neurological hand based on evidence and pragmatic clinical reasoning improving functional performance of the UE.
GUEST FACULTY

Salvador Bondoc, OTD, OTR/L, BCPR, CHT, FAOTA is currently an Associate Professor and Department Chair of Occupational Therapy at Quinnipiac University. His clinical practice and research interests are in upper extremity rehabilitation for persons with neurologic and orthopedic conditions. Sal has lectured extensively as an invited speaker at the state, national and international conferences on topics related to neuro-rehabilitation and hand therapy. He has published in peer-reviewed publications as well as contributed chapters in textbooks.

Sal is an active clinician and combines his expertise in both neurologic and orthopedic populations. He holds volunteer leadership appointments as a member of the AOTA Commission on Practice and as a Team Chair for ACOTE's Roster of Accreditation Evaluators. He is the past Chair of AOTA's Physical Disabilities Special Interest Section. Currently, Sal is a Board Member for Professional Development of the Connecticut Occupational Therapy Association. He is the Administrator of newly created AOTA Evidence Based Practice.

FACULTY FROM THE REHABILITATION INSTITUTE OF CHICAGO AND NORTHWESTERN UNIVERSITY

Caitlin Doman, MS, OTR/L, Occupational Therapist, 9th Floor Patient Care Recovery Unit

Piper Hansen, OTD, OTR/L, Occupational Therapist, Patient Recovery Unit, and Occupational Therapy Practice Leader, Rehabilitation Institute of Chicago

Jane E. Sullivan, PT, DHS, MS is an Associate Professor in the Department of Physical Therapy and Human Movement Sciences, Feinberg School of Medicine, Northwestern University.

SELF STUDY ACTIVITIES

| On line presentation and assessment: Review of Functional Anatomy & Biomechanics of the Hand, presented by Salvador Bondoc, OTD, OTR/L, BCPR, CHT, FAOTA | 1 CEU |
| On line presentation and assessment: Upper Extremity Assessment and Training post stroke, presented by Caitlin Domain, MS OTR/L | 1 CEU |
| **Total Self Study** | **2 CEU’s** |

ON SITE AGENDA

Friday, November 11, 2016

*Except where noted, the entire course will be taught by Salvador Bondoc, OTD, OTR/L, BCPR, CHT, FAOTA*

7:30am  Registration  
1st Floor Lobby  
Rehabilitation Institute of Chicago

Continental Breakfast  
16th Floor Lobby, RIC Academy

8:15  Welcome and Introduction

8:30  Overview of Stroke Recovery and Implications on the Upper Extremity

9:00  Motor Control of the Upper Extremity

10:15  Break

10:30  Challenges to Arm and Hand function: spasticity, contractures, and sensory impairments
12:00pm Lunch

1:00 Overview of Tests and Measures Relevant to the Neurological UE
Demonstration of Tests and Measures (workshop)
  • Action Research Arm Test
  • Fugl Myer and Chedoke-McMaster
  • Chedoke Arm and Activity Index (CAHAI-7)
    Salvador Bondoc OTD, OTR/L, BCPR, CHT, FAOTA;
    Piper Hanson OTD, OTR/L, Caitlin Domain, OTR/L

2:30 Break

2:45 Evidence-Based Interventions and Clinical Pearls-Part 1:
Severe to Moderate Dysfunction
  • Flaccid to Severe Spastic Arm and Hand
  • Central Sensory Syndromes
  • Subluxed and Painful Shoulder

4:45pm End of Day 1

Saturday, November 12, 2016

7:30 am Continental Breakfast
  16th Floor Lobby, RIC Academy

8:00 Evidence-Based Interventions and Clinical Pearls-Part 2:
Moderate to Mild Dysfunction
  • Spastic Arm and Hand with Some Function
  • Learned Non-Use

9:30 Break

9:45 Basic Concepts/Principles of Electrical Stimulation for the UE
  Jane Sullivan, PT, DHS, MS

10:30 Workshop
  1. Selected Interventions for the Post Stroke Neurologic UE
     Caitlin Domain, MS OTR/L; Salvador Bondoc OTD, OTR/L, BCPR, CHT; Piper
     Hanson, MS OTR/L

  2. NMES/ FES Application for the UE
     Jane Sullivan, PT, DHS, MS; Ryan Pelo, PT, DPT

12:00 pm Lunch

1:00 Workshop
  1. Selected Interventions for the Post Stroke Neurologic UE
     Caitlin Domain, MS OTR/L; Salvador Bondoc OTD, OTR/L, BCPR, CHT; Piper
     Hanson, MS OTR/L

  2. NMES/ FES Application for the UE
     Jane Sullivan, PT, DHS, MS;

2:30 Questions/wrap up

2:45 Conclusion of Course
TUITION

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<tr>
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<th>Single Tuition</th>
<th>Group Tuition (2 or more)</th>
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<tbody>
<tr>
<td>Early Bird Registration (Before Sept 30)</td>
<td>$575.00</td>
<td>$555</td>
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<tr>
<td>Regular Registration Fee (After Sept 30)</td>
<td>$650.00</td>
<td>$630</td>
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To qualify for single and group discount rates, students must mail or fax the group’s registrations together.

LOCATION

The program will be held at the Rehabilitation Institute of Chicago, 345 East Superior Street, Chicago, Illinois. The conference site is wheelchair accessible. Accessible materials, sign language interpretation and personal assistance are available with at least 45-days advance notice.

HOUSING

The Inn of Chicago Magnificent Mile is located 3½ blocks from RIC at 162 East Ohio Street, Chicago, Illinois 60611. Please contact their reservations department from 9:00 am until 5:00 pm at 1-(866)-493-4415 or (312) 787-3100 and ask for the Management of the Neurologic Upper Extremity course room block.

The corporate room rate is $179.00 for a deluxe king (single or double occupancy) plus the *17.4% tax. Covered parking is available to registered guests and is located at Park One at Ohio and Grand. The current parking fee is *$46.00 for self-parking with no in/out privileges and *$52.00 for valet, which includes in/out privileges for 24 hours. The corporate room rate will be available until October 11, 2016 or until the group block is sold-out, whichever comes first.

*The rates for parking and taxes are subject to change without advanced notice.

REFUND POLICY

All cancellations must be in writing. Refunds less a 20% administrative charge will be given until November 4, 2016. RIC reserves the right to cancel or change any programs for due cause. Cancellation of a program by RIC will result in a full refund of tuition. RIC is not responsible for the refund of travel or hotel expenses under any circumstance.

BASIC COMPUTER REQUIREMENTS

You will need access to a computer with an Internet connection. High speed broadband access (LAN, Cable or DSL) is highly recommended.

- PC: Compatible Operating System: Windows XP, Vista, 7, 8, 8.1 Web Browser: Firefox, Chrome, Internet Explorer 10 or higher
- MAC: Compatible Operating System: OS X Web Browser: Firefox, Chrome, Safari

IMPORTANT REGISTRATION INFORMATION

Registrations will be taken in the order in which tuition checks or credit card information is received. We highly encourage you to register online as these are processed more quickly than mailed or faxed registrations. Full tuition must accompany the registration form in order to confirm a place in this course. Until you receive your confirmation letter, you are not officially registered for the course. For online
registrations you will receive email confirmation within one week of the date you registered. For registrations received by standard mail or fax, the confirmation may take up to 3 weeks after we receive your registrations. If you do not receive confirmation within this time period, please call 312-238-6042.

Do not make airline reservations that have cancellation penalties until we confirm your registration. However, you should make hotel reservations as soon as possible. **One week prior to the course only internet registrations and faxed registrations that include an email address will be accepted.** Please note that the course could reach its maximum enrollment before this time.

**CONTINUING EDUCATION CREDIT**

This course has been approved by the Illinois Physical Therapy Board for 14 Contact Hours. Approval #216-000069.

The Rehabilitation Institute of Chicago is an approved provider for the American Occupational Therapy Association to offer continuing education in occupational therapy. This intermediate level program awards occupational therapists 1.425 CEUs or 14.25 contact hours. The assignment of AOTA CEUs does not imply endorsement of specific course content, products, or clinical procedures by AOTA. Category 2: Occupational Therapy Process
REGISTER ONLINE at www.ric.org/education or return this form with payment

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Tuition Before September 30th  
☐ Single Registration: $575.00  
☐ 2 or more: $555.00 per registrant

Tuition After September 30th
☐ Single Registration: $650.00  
☐ 2 or more: $630.00 per registrant

Make check payable to: REHABILITATION INSTITUTE OF CHICAGO
Mail to: RIC Academy  
345 E. Superior Street, Suite 1641  
Chicago, Illinois 60611

Please TYPE or PRINT your name and professional initials (PT) as you would like them to appear on your continuing education certificate.

Name ________________________________________________ First Name __________________________ Last Name __________________________

Home Phone (_________ ) _____________________________ Prof. Initials __________________________

Home Address_______________________________________________________________________________

City_________________________ State_________________________ Zip____________________

Organization/Facility__________________________________________________________

Work Address______________________________________________________________________________

City_________________________ State_________________________ Zip____________________

Work Phone (_________ ) _____________________________ Fax (_________ ) ____________________

Position______________________________

E-mail______________________________________________
(We encourage you to use e-mail – it allows us to respond much faster to your registration. Thank you)

Please note: registration will not be processed without full payment.

Method of Payment:  
☐ Check enclosed  
☐ Credit Card

Credit Card Users Must Complete the Following Information:

Credit Card # _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ 
Expiration Date __ __ / __ __
CVC Code __ __ __ (Security code on back of card)

Name on Card______________________________________________________________________________

Billing Address____________________________________________________________________________

City________________________________________ State_________________________ Zip____________________

Cardholder’s Signature__________________________________________________________________

Credit card registrations may be faxed to: 312-238-4451. If you fax your registration, do not send another registration by mail.