# ICCPDM Instructional Pre Congress Course, Lucknow 6<sup>th</sup> March 2013

**Title:** Surgery or botulinum toxin treatment of the upper limb in cerebral palsy: Instructional course on treatment algorithm, and how timing, differing brain lesions and muscle alterations could affect outcome.

The course will present orthotic devices and splinting regimes for pre and post surgery, for conservative treatment and for pre and post treatment with botulinum toxin.

Course Level: (Basic to) Intermediate

### **Purpose:**

- 1. To improve clinicians' understanding of surgical options in the treatment of the upper limb in cerebral palsy (CP).
- 2. To provide information on how to use a treatment algorithm in the planning of treatments of the upper limb, either surgical or with botulinum toxin.
- 3. To provide information on how different brain lesions could affect outcome.
- 4. To improve clinician's understanding of how muscle and fascia alterations could affect outcome.
- 5. To improve understanding of how knowledge on the natural course of spasticity and contractures could optimize timing of treatment
- 6. To provide information about useful pre-made and custom made orthoses used for conservative treatment or combined with surgical interventions or treatment with botulinum toxin
- 7. To provide information on regimes for the use of orthotic devices pre and post surgery and pre and post injection with botulinum toxin

**Target Audience:** This course is relevant to clinicians and caregivers treating children with cerebral palsy in the clinical setting and individuals conducting research on botulinum toxin and upper limb surgery in CP.

#### **Presenters:**

Eva Pontén, MD, PhD, hand surgeon, orthopaedic surgeon,

Astrid Lindgren Children's Hospital, Karolinska University Hospital, Stockholm, Sweden

Margareta Persson, OTR, Akademiska Sjukhuset Uppsala, Sweden

#### **Course Summary:**

Dr Eva Pontén and Margareta Persson will share their knowledge on what factors are important to take into account when planning surgery or giving botulinum toxin treatment.

Current knowledge on supraspinal organization in CP affecting upper limb function, spasticity development and contracture formation will be discussed.

The Swedish CP registry data on clinical measures of the upper limb will be presented.

Films of children with CP during manual activity will be shown, and discussions on treatment options will be encouraged.

Regimes for the use of orthotic devices will be presented and premade and custom made orthoses will be demonstrated.

Participants will have the chance to try orthoses and supports on their own hands.

# **Learning Objectives:**

- 1. To gain knowledge of how and when hand position deteriorates during growth, how that impairs function, and how the hand position could be improved.
- 2. To gain knowledge on different surgical treatment options
- 3. To gain knowledge on timing of botulinum toxin and surgery
- 4. To understand the role outcome measures have in assessing function, quality of life and activity and participation of children with CP and how that information can be used in the surgical decision-making.
- 5. To gain knowledge on splinting options and regimes

# **Questions for Course Feedback (3 to 4):**

- 1. Did you get information on when and why different surgical procedures on the upper extremity could be beneficial for the child with CP?
- 2. Did you obtain an understanding on how hand position and hand function change during growth?
- 3. Did you obtain knowledge on how differing voluntary control, spasticity and muscle stiffness could affect treatment outcome?
- 4. Did you get information on splinting regimes and splinting options?

## Course Format (include Speaker Topics, Break time, and Q&A time):

Start in the morning depends on when my arrival time but my guess is that this could work:

10.00 Intro, Eva plus Maggi

10.15 Eva

11.30 Maggi

12.00 Tea/lunch break

12.30 Eva

14.00 Maggi

15.00 Discussion Evaluation

15.30 Finish