

**Topic:** Rehabilitation Intensity and outcomes

**Type of presentation:** Symposium

**Title of the Session:** Therapy dosage of Upper extremity training in neurological disorders

OR Upper limb rehabilitation dosage for people with neurological conditions: different approaches in research and clinical practice...

OR evidence, recommendations and clinical messages

**Chair/moderator:** Prof. Peter Feys

**Speakers:**

- Prof. dr. Annemie Spooren, annemie.spooren@uhasselt.be, Faculty of Rehabilitation Sciences, Hasselt University, Hasselt, Belgium.  
Presentation title: Therapy dose in upper limb rehabilitation in cervical spinal cord injury: linking evidence to clinical practice  
Annemie Spooren is assistant professor in Neurological Rehabilitation and teaches in both master programs of physical and occupational therapy. Her research focuses on goal-oriented and task-oriented upper limb training in persons with different neurological disorders with special interest in spinal cord injury and therapy doses within an interdisciplinary context.
- Prof. dr. Lisa Tedesco Triccas, Faculty of Rehabilitation Sciences, Hasselt University, Hasselt, Belgium.  
Presentation title: High-dosage therapy in the early phase post stroke with a focus on moderate to severe upper limb impairment  
Lisa Tedesco Triccas is an assistant professor of Neurological rehabilitation and her research focuses on exploring the feasibility and the clinical and neurophysiological effect of high dosage upper limb training programme with functional electrical stimulation in the acute and early subacute phase of stroke, focussing on moderate of severe impairment.
- Prof. dr. Hayward \_\_\_\_\_

**Abstract**

Integrating the measurement of therapy dosage dimensions is essential when implementing upper limb rehabilitation programs for persons with different neurological conditions. However, at present the optimal therapy dose for these persons is uncertain or not even measured. This symposium will commence with an overview of the general framework of therapy dosage dimensions, that could be taken into account while configuring a training program on the upper limb will be elaborated.

A state of the art overview will be focused exploring different therapy dosage dimensions such as duration, session length and intensity within persons with stroke, multiple sclerosis and spinal cord injury will then be provided. Different research approaches and results to therapy dose dimensions are demonstrated including dose escalation study approach, perspective of patient and therapist on dose dimensions as well as perspective of in low income countries. To conclude take clinical messages will be provided on what is identified

from the research and also what should be focussed on (e.g. measuring difficulty) in future trials using adaptive trial methodology.

### **Diversity**

This symposium embraces diversity in different dimensions. Different neurological disorders will be discussed, with speakers from high income (Belgium and Australia) including results from low countries (Benin and Burkina Faso) and with emphasis on an interdisciplinary approach.

### **Program:**

- 1.Dose: General framework and its implementation in clinical trials (different phases, different settings, different therapies and modes) (Hayward): 20'
- 2.Stroke: Evidence, high dosage upper limb therapy for moderate to severe upper limb impairments in acute and subacute stage of stroke (Lisa): 25'
- 3.SCI: Evidence, different perspectives: observation, qualitative, patient versus therapists (Annemie) 25'
- 4.Take home messages (Hayward) and discussion: 20'