



8D Clinical trials in neurorehabilitation: Taking stock and moving forward

Chair | *Coralie English*,⁵

1.30pm - 3.00pm

PRESENTERS

Bruce Dobkin,¹ *Audrey Bowen*,² *Janice Eng*,³ *Julie Bernhardt*⁴

1. *Neurologic Rehabilitation and Research Program University of California Los Angeles, Geffen/UCLA School of Medicine Reed Neurologic Research Center, USA*
2. *University of Manchester, UK*
3. *University of British Columbia, Canada*
4. *AVERT Early Intervention Research Program, Stroke Division, Florey Neuroscience Institutes, Melbourne, VIC, Australia*
5. *University of South Australia, Adelaide, SA, Australia*

When conducted well, clinical trials provide the best method to test new or improved interventions and reduce the chance of introducing sources of bias that may influence our findings.

Clinical trials are therefore the most trusted source of evidence about new therapies. Designing and conducting clinical trials in patients with neurological disorders is often complex, but the common challenges encountered are not insurmountable. Given the explosion of neurorehabilitation trials in the literature and the costly nature of trials, it is timely to review how we design and conduct trials in rehabilitation to maximise our personal and financial investment.

This symposia brings together highly experienced trialists from across the world to share their knowledge of developing, conducting and completing clinical trials in neurorehabilitation.

Attendees of this symposia will gain a better understanding of:

1. The different trial designs that can be used to answer important clinical questions
2. Current problems with trial designs and how to overcome them
3. How to design a multi-centre clinical trial in neurorehabilitation
4. How to build and maintain a trial network

The symposia is open to anyone interested in clinical trials.

8E Stroke 6

Chair | *Natasha Lannin*

1.30pm - 1.45pm

8E.1 EFFECTS OF PNEUMATIC ABDOMINAL BINDER AND CALF COMPRESSION VERSUS ELASTIC COMPRESSION BANDAGING ON ORTHOSTATIC HYPOTENSION IN PATIENTS WITH ACUTE STROKE: A RANDOMIZED CLINICAL TRIAL Abstract ID:379

**Vijayakumar K*,¹ *Karthikbabu S*,² *Aishwarya S*²

Kasturba Medical College, Manipal University, Mangalore, Karnataka, India

Background and Aims

Orthostatic hypotension (OH) occur early following stroke due to impaired venous return, autonomic instability and paretic limb muscles. This orthostatic hemodynamic stress further exacerbates the existing cerebral damage and delayed functional recovery. The aim was to compare effects of Pneumatic abdominal binder (PAB) and Pneumatic Calf Compression (PCC) versus Elastic Compression Bandaging (ECB) for OH during tilt table standing in patients with acute stroke.

Methods

26 (18 male, 8 female) stroke subjects (duration < 3 weeks) with OH as defined by American Academy of Neurology and American Autonomic Society were randomly assigned to receive either experimental- PAB + PCC (n=13) or control- ECB (n=13). Tilt table standing was administered for six consecutive sessions and outcomes were measured pre-post intervention. The hemodynamic responses were measured using OmronTM Digital BP apparatus. The pressure applied using PAB and PCC for the experimental group was maintained at 40 and 30 mm Hg respectively while in the control group ECB was applied to the paretic calf muscles. Primary outcome of percentage of patients who attained orthostatic stability at 600 of tilt was considered for between-group comparison using Chi-square test and the secondary outcomes of modified Rankin Functional Scale (MRS), length of hospital stay (LOS) were compared using Mann-Whitney U test.

Results

Comparison of percentage of subjects who had attained orthostatic stability between the groups was significant on the 3rd and 6th day with $p < .05$. Mean difference in change of SBP in experimental