**Background**

Patients with visual hemispatial neglect fail to report or respond to contralesional stimuli. Rehabilitation of neglect is important, given the negative influence on motor recovery, independence in self-care, transfers and locomotion. Effects of prism adaptation to alleviate neglect have been reported. However, either small groups or no control group were included, and few studies reported measurements on the level of activities in daily living (ADL).

→ Can early intervention with prism adaptation ameliorate neglect both better and earlier compared to sham adaptation?

**Patient population**

- 70 stroke patients admitted to De Hoogstraat rehabilitation center
- Neglect: indicated with a Shape Cancellation test, Line Bisection test, and/or Catherine Bergego Scale
- 18-85 years of age
- Sufficient understanding of verbal communication

**Design**

- Eligibility assessment
- Baseline T0
- Randomization
- Prism adaptation (2°) T1 & T2
- Sham adaptation (0°) T1 & T2
- Post treatment T3 1 week after adaptation
- Follow up T4 2 weeks after adaptation
- Follow up T5 6 weeks after adaptation
- Follow up T6 12 weeks after adaptation

**Prism Adaptation**

A. Prism glasses with an ipsilesional optic shift of 10° induce a pointing error
B. During 100 pointing movements the brain adapts to the new image
C. After removing the glasses, contralesional pointing errors occur

**Primary outcomes**

- Neuropsychological neglect tests Shape Cancellation, Letter Cancellation, Line Bisection, Landmark Test, Copying, Mental Representation and Symmetrical Photos (Figure 1)
- Neglect during ADL Catherine Bergego Scale, filled in by the nurse, occupational therapist and physical therapist

**Secondary outcomes**

- Balance Wii™ Balance Board
- Driving simulation and eye movements (Figure 2)
- Dynamic visual search task Mobility Assessment Course (Figure 3)
- Self evaluation of neglect Catherine Bergego Scale
- Independence during ADL Barthel Index