

## S67-04

### DOUBLE BLIND RANDOMISED CLINICAL TRIAL OF BRIGHT LIGHT THERAPY IN ELDERLY SUBJECTS WITH NONSEASONAL MAJOR DEPRESSIVE DISORDER

R. Lieveise<sup>1</sup>, M. Nielen<sup>1</sup>, B. Uitdehaag<sup>2</sup>, E. van Someren<sup>3</sup>, J. Smit<sup>1</sup>, W. Hoogendijk<sup>1,4</sup>

<sup>1</sup>Department of Psychiatry, Academic Outpatient Clinic for Affective Disorders, Stichting GGZ Buitendamstel-de Geestgronden,

<sup>2</sup>Clinical Epidemiology and Biostatistics, VU University Medical Center, <sup>3</sup>Netherlands Institute for Neuroscience, Netherlands Academy of Arts and Sciences, <sup>4</sup>Center for Neurosciences Neurogenomics and Cognitive Research (CNCR), VU University Medical Center, Amsterdam, The Netherlands

**Background:** The cause of depression is largely unknown, but several studies point to disturbances of biological rhythmicity. The functioning of the suprachiasmatic nucleus (SCN) is impaired, as evidenced by an increased prevalence of day-night rhythm perturbations, such as sleeping disorders. Moreover, the inhibitory SCN neurons on the hypothalamus-pituitary adrenocortical axis (HPA-axis) have decreased activity and HPA-activity is enhanced, when compared to non-depressed elderly. Using bright light therapy (BLT) the SCN can be stimulated. In addition, the beneficial effects of BLT on seasonal depression are well accepted. BLT is a potentially safe, nonexpensive and well accepted treatment option. But the current literature on BLT for depression is inconclusive.

**Methods/design:** RCT (ClinicalTrials.gov identifier: NCT00332670) in 89 subjects, of 60 years and older with a diagnosis of major depressive disorder. After inclusion subjects were randomly allocated to the active (BLT) vs. placebo (dim red light) condition. just before the start of light therapy, after completion of three weeks therapy period, and three weeks thereafter several endocrinological, psychophysiological, psychometrically, neuropsychological measures are performed:

**Results:** Main effect analyses on HADRS-17 scores revealed significant antidepressant effects from BLT. Primary results will be presented.

**Discussion:** BLT reduces nonseasonal depression in elderly patients. Additional lightning may easily be implemented in the homes of patients to serve as add-on treatment to antidepressants or as a stand-alone treatment in elderly depressed patients. Our data support the role of a dysfunctional biological clock in depressed elderly subjects, such a finding may guide further development of novel chronobiological oriented treatment strategies.