The Norwegian Cognitive impairment after stroke (Nor-COAST) study.

Ingvild Saltvedt,1,8 Hanne Ellekjær 1,2, Torunn Askim 1, Bent Indredavik 1,2, Pernille Thingstad 1, Torgeir Engstad 3, Halvor Næss 4, Hege Ihle-Hansen 5, Charlotta Hamre 6, Mona Beyer 7

Affiliations: 1Department of Neuroscience, Norwegian University of Science and Technology, Trondheim, Norway 2Stroke Unit, St. Olavs Hospital, Trondheim, Norway, 3University hospital of North Norway, Tromsø, Norway, 4Department of Neurology, Haukeland University hospital, Bergen, Norway, 5Vestre Viken Hospital, Bærum, Norway, 6Oslo University hospital, Ullevål, Oslo, Norway, 7Oslo University hospital, Rikshospitalet, Oslo, Norway, 8Department of Geriatrics, St. Olavs Hospital, Trondheim, Norway

Keywords: post-stroke, dementia, mild cognitive impairment

Objective: Post-stroke dementia (PSD) and mild cognitive impairment (MCI) are common sequelae following stroke. Further insight of the mechanisms and modifiable risk factors causing PSD and MCI is needed. The overall aim of this study is to establish a national research platform to improve health outcomes following stroke by increasing the understanding of how to prevent PSD and MCI.

Methods: Nor-COAST is an ongoing descriptive cohort study recruiting patients from five Norwegian hospitals, 828 patients with acute stroke (ischemic or hemorrhagic) admitted to one of the five participating stroke units have been included according to the following criteria; age above 18 years, living in the catchment area of the hospitals and onset within 7 days before hospitalization. Data at baseline, discharge and 3 and 18 months include evaluation of cognition, lifestyle, physical activity, cerebral MRI, blood samples, activity monitoring (active PAL), and pharmacological and non-pharmacological secondary prevention.

Results: Inclusion was completed March 31st 2017, 3 and 18 months follow up is ongoing. Nor-COAST will illuminate important aspects of PSD/MCI; incidence and clinical phenotype, pathogenetic factors including MRI, biomarkers and genetics, impact of physical activity, interaction between secondary prevention and development of PSD/MCI and clinical methods identifying risk patients.

Cognitive impairment after stroke is frequently ignored, and the study will contribute to valuable and useful knowledge for the clinicians and further research like intervention studies.

ClinicalTrials.gov Identifier: NCT02650531