

European Respiratory Society Annual Congress 2012

Abstract Number: 2033

Publication Number: P549

Abstract Group: 1.12. Clinical Problems - COPD

Keyword 1: Telemedicine **Keyword 2:** COPD - exacerbations **Keyword 3:** Education

Title: Cognitive function of patients with COPD after virtual admission – A randomized clinical trial

Mrs. Lone 3193 Schou loneschou@yahoo.dk ¹, Dr. Birte 3194 Østergaard birte@oestergaard.eu ², Prof. Lars 3195 Rasmussen lars.rasmussen@rh.regionh.dk MD ³, Dr. Susan 3196 Rydahl-Hansen sr02@bbh.regionh.dk ⁴, Mrs. Anna 3197 Svarre Jakobsen annasvarre@gmail.com MD ¹, Mrs. Christina 3198 Emme christina_emme@hotmail.com ¹ and Dr. Klaus 3199 Phanareth phanareth@gmail.com MD ¹. ¹ Telemedicine Research Unit, Frederiksberg University Hospital, Copenhagen, Denmark, 2000 ; ² Research Unit of Nursing, Institute of Clinical Research, University of Southern Denmark, Odense, Denmark, 5000 ; ³ Department of Anaesthesia, Center of Head and Orthopaedics, Rigshospitalet, University Hospital of Copenhagen, Copenhagen, Denmark, 2100 and ⁴ Research Unit of Clinical Nursing, Bispebjerg and Frederiksberg University Hospital, Copenhagen, Denmark, 2400 .

Body: Background: Substantial healthcare resources are spent on Chronic Obstructive Pulmonary Disease (COPD). As a result, the involvement of patients in monitoring of their condition has been suggested. However, the level of cognitive functioning must be taken into consideration before self-care strategies can be adopted. Aim: We hypothesized that cognitive performance would be better in COPD patients allocated to virtual admission - using a telemedicine solution - compared to patients admitted to conventional hospitalization after exacerbation. Methods: This study was a Randomized Clinical Trial. The primary outcome was cognitive function evaluated at discharge and after six weeks using a neuropsychological test battery comprising 4 tests and 7 variables. Secondary outcomes included self-reported cognitive function (SCF), activities of daily living (IADL), and anxiety and depression (HADS). Results: We included 44 patients consecutively. Baseline data were; Mean age 70 years (SD 10); forced expiratory volume in one second (FEV1) 1.0 L (SD 0.55); Oxygen saturation 94.5 (SD 2.0); and a Mini Mental State Examination score of 27.5 points (SD 1.6). The performance in all seven neuropsychological test variables tended to be better in the group allocated to virtual admission, but the difference was only statistically significant in the time for the Stroop Color Word test, (p=0.05). The pattern was the same at follow-up after six weeks but the differences were less pronounced. There were no significant differences in SCF, IADL, and HADS at discharge or after 6 weeks. Conclusion: Cognitive function may be better preserved in COPD patients treated for exacerbation during virtual admission at home.