397. Challenges in rehabilitation: some old dilemmas revisited with some solutions?

P3640 Late-breaking abstract: Bi-level positive airway pressure (Bipap) effects on regional distribution of lung ventilation in COPD

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Aim: To assess changes on distribution of lung ventilation before and after Bipap, in patients with chronic respiratory failure (CRF) due to severe COPD.

Methods: 11 COPD pts (mean age 69.3 ±7.5), in stable conditions, underwent two successive ventilation scans (V) with a radiolabeled aerosol (99mTc nanocolloid albumin, Ventilco, GE). The first ventilation was done using FAI device (Fasters, MPR), and the second one using an adapted nasal mask system (FA2), which allows evaluation of distribution after Bipap. Clinical symptoms and arterial blood gas analysis were observed before and after treatment. The images of V before and after Bipap were quantified by a semi-automatic procedure which divides each lung in 3 regions of interest (ROI): upper, medium and lower lung field, to obtain the upper/lower (U/L) ratio. An automatic iso-level ROI procedure enabled radioactivity measurement (counts) of ventilated area (Va 5% and 30%), on the right posterior and on the right lateral lung. A ventilation distribution before and after Bipap were quantified by a semi-automatic procedure which allows evaluation of (V) distribution after Bipap. Clinical symptoms and arterial blood gas analysis were observed before and after treatment. The images of V before and after Bipap were quantified by a semi-automatic procedure which divides each lung in 3 regions of interest (ROI): upper, medium and lower lung field, to obtain the upper/lower (U/L) ratio. An automatic iso-level ROI procedure enabled radioactivity measurement (counts) of ventilated area (Va 5% and 30%), on the right posterior and on the right lateral lung. A ventilation distribution before and after Bipap were quantified by a semi-automatic procedure which allows evaluation of (V) distribution after Bipap.

Results: A significant reduction of U/L ratio (F=12.12; p<0.01) and of cardiac rate (p<0.01) were accompanied by a significant increment of pO2 (p<0.01) and of pCO2 (p<0.01), and of INI 5 and 30%, increased, and INI 5 and 30%, decreased, even if both not significantly.

Conclusions: A significant improvement of the physiologic gradient (U/L), an increment of ventilated areas (Va 5% 30%), and a reduction of regional ventilation inhomogeneity distribution (INI) were likely underlying the therapeutic effect of the Bipap in COPD.

P3641 Late-breaking abstract: Efficacy of relaxation posture in patients with chronic obstructive pulmonary disease (COPD)

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Aim: Relaxation postures are recommended to reduce the work of breath-}

ing and dyspnea in patients with COPD. Semi-fowler position, forward-leaning posture and orthopaedic position are used efficiently. However, it is not clear that the effects of these positions in reducing dyspnea and work of breathing in patients with COPD.

The purpose of this study is to clarify efficacy of relaxation posture.

Method: Thirty-eight stable outpatients with COPD participated in the study. We measured mouth occlusion pressure (P0.1), VC02, VO2, tidal volume, heart rate variability and degree of relaxation used by visual analogue scale (VAS) in quiet breathing at sitting, forward-leaning sitting and semi-fowler position. We also measured pulmonary function and maximal inspiratory pressure (Pmax). We analyzed these data depend on GOLD classification. Data analysis was performed by using software SPSS Statistics 17.0.

Results: The following respiratory function in 38 patients were FVC 2.86±1.08L, FEV1 1.0±1.40±0.76L, FEV1/FVC 48.6±14.3%, %FEV1/1.0±23.3%, FRC 3.84±1.24L, RV 2.96±0.95, Pmax 58±12.7cmH2O. There were no significant differences in P0.1 and P0.1/Pmax among each position. However, VAS in semi-fowler position was more reduced than sitting on the front and posterior position (p<0.05).

In the GOLD classification, P0.1 on forward-leaning sitting significantly increased in stage 4 compared stage 1 and stage 2(p<0.01) and also P0.1/Pmax on every position significantly increased in stage4 compared stage 1 and stage2(p<0.05).

Conclusions: Semi-fowler position may be most effective to reduce respiratory output of and dyspnea in patients with COPD.

P3642 Maintenance programme after COPD pulmonary rehabilitation (PR): Differences in long-term BODE index between responders and non-responders

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Aim: To assess how BODE index change throughout the course of a maintenance period after PR, with regard to the response to the initial 8-week out-patient programme.

Methods: Data were analysed from a multi-centric, prospective and randomized study on COPD PR in which after completion of the outpatient phase, patients were randomly assigned to a supervised (intervention group) versus non-supervised (control group) maintenance protocol. Conditions to be considered as a responder to initial PR were ΔBODE index > -1 point, but also ΔBODE ΔC -1 point, only if ΔMMWD (6min walking distance) was greater than 35m. Patients not fulfilling these conditions were considered as non-responders. In the present analysis, patients’ BODE index was assessed, at months 12 & 24 during the follow-up.

Results: 133 out of 143 patients completed the initial period (64 (9) years; BODE index 4.8 (1.6)). Among them, 66.4% were responders. At 12-month, 98 patients continued in the study, and intriguingly, only non-responder patients in both intervention and control groups continued to improve, obtaining ΔBODE= -0.6 (1) and 0.1 (1) respectively, opposite responders, who obtained ΔBODE=0.6 (1) in the intervention and 0.35 (1.5) control patients. At the 24-month point, 75 patients still remained in the study and again, only non-responders in the intervention group improved BODE -0.5 (1). Analysis of variance (ANOVA) showed no statistical differences between groups

Conclusion: A majority of patients response to PR (BODE index), but in those initially non-responders, maximal improvements may take longer to be achieved, independently the maintenance program carried out.

P3643 Maintaining the benefits of pulmonary rehabilitation with a home exercise DVD – A feasibility pilot study

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Introduction: Pulmonary rehabilitation (PR) is an exercise-based therapy that produces significant improvements in dyspnoea, exercise capacity, and health status in COPD patients. However, improvements wane with time. Cost-effective interventions are required to maintain the benefits of PR. We hypothesised that providing PR complements with an exercise DVD would prolong the duration of benefits from pulmonary rehabilitation. We conducted a pilot study to assess the feasibility of conducting a randomised controlled trial.

Method: 72 patients at completion of an 8-week outpatient PR program were prescribed individualised exercise advice and goal-setting, and were offered to receive a specially filmed home exercise DVD [1]. The self-report Chronic Respiratory Disease Questionnaire (CRQ-D) SR and incremental shuttle walk (I5W) were measured immediately following PR (T2) and 6 months following the end of PR (T3).

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**P3644**

Maintenance of long-term benefits from an outpatient pulmonary rehabilitation programme (PRP) in COPD patients and to establish which patients require frequent repetitions of PRP.

Fifty-one COPD patients (FEV1 < 70% predicted, FEV1/FVC < 0.70) underwent 10 weeks outpatient PRP program (10h30, 5 sessions/week). PRP was designed to be continuous and to maintain patients involved in supervised exercise training. The patients were randomly divided into two groups: PRP-T (n=26) and PRP-T2 (n=25). The patients were evaluated at baseline (T0), post-PRP (T1), 6 months (T2) and 9 months (T3) follow-up. All outcomes improved at T1. SixMWT and MRC progressively worsened at T2 and T3 respectively, whereas SGRO remained stable up to 9 months from PRP.

**P3645**

Long term pulmonary rehabilitation programs for chronic obstructive pulmonary disease (COPD). Two years follow-up

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**Introduction:** Pulmonary Rehabilitation (PR) has demonstrated, with a high level of evidence, that it improves health related quality of life (HRQOL) and exercise capacity in COPD patients. However, these benefits can’t be sustained for more than a year.

**Objective:** To evaluate the efficacy of a Maintained PR program (MPR) applied after an outpatient intensive PR program in patients with COPD.

**Methods:** Multicentre, prospective, randomized three years follow up study of a group of stable COPD patients (<75 years old, BOSE 3-10). After 2-month outpatient and intensive PR program, the patients are randomly assigned to two groups. Intervention group (GR1), who performed a domiciliary program similar to the outpatient protocol, received a phone call every 15 days, and attended the hospital once every 15 days in order to control treatment. The Control group (GR2) didn’t follow any specific program. The variables analysed were: BODE, six minute walking test (6mWT) and HQRQ (CRQ, SF36).

**Results:** We included 143 patients. After 2 years follow-up, we have lost 67 patients (46%). The losses were similar in both groups. The change for all variables during this period was also similar in both groups except for the distance in the 6mWT.

**Conclusion:** The losses in this study were high. This 2 PRP is effective in terms of exercise capacity. Supported by SOCAP 2005-06, Instituto Carlos III (FIS 06/0792) and SEPAR 2008.

**P3646**

Rehabilitation of pulmonary dysfunction in patients with ankylosing spondylitis

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**Objective:** The study is aiming to demonstrate the benefit of inspiratory muscle training (IMT) on pulmonary dysfunction in ankylosing spondylitis (AS) patients.

**Methods:** Twenty four patients (mean age: 45.6±6.5 years old, all males) who were previously diagnosed with AS stage III and IV were included in a eight weeks prospective study. The patients were evaluated at baseline and at the end of the study with respect to resting pulmonary function test (forced vital capacity - FVC, forced expiration volume in one second - FEV1) and cardiopulmonary exercise test (maximal minute ventilation - VEmax, maximal tidal volume – VMmax and maximal workload attained during the exercise test - Penax). All patients performed IMT sessions, three times weekly for a period of eight weeks using a computer assisted TrainAir device. Each IMT session was individualized by evaluating the maximum inspiratory pressure (SIMP), the training being performed at 80% of SIMP.

**Results:** Using paired t test to compare data at baseline and at the end of the study we noticed significant improvements of FVC (3.4%, p=0.0002), FEV1 (3.2%, p=0.0047), VEmax (5.9 L/min, p=0.0002), VMmax (0.7 L, p=0.0248), Penax (16 Watt, p<0.0001).

**Conclusions:** Inspiratory muscle training improves resting and effort pulmonary function of patients in advance stages of AS. This is mainly due to the influence of IMT on increasing strength and mobility of the diaphragm and accessory inspiratory muscles, together with the biofeedback provided by the interaction of patient with inspiratory muscles – physical therapist. Improving ventilometric performance leads to an increased exercise capacity and quality of life in patients with AS.

**P3647**

Complex outcomes of physical training in COPD patients

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**Background:** Exercise and respiratory training is an important part of COPD patient rehabilitation. It improves physical tolerance and lung function, as well as HR QoL.

**Aim:** To assess the exercise and respiratory training impact on systemic effects in COPD patients.

**Methods:** 52 COPD patients, stage III and IV were randomized in 2 groups. Group 1 (63.9±7.5 yr, 34.6±11.5 pack/yr, FEV1 36.4±11.06%, pred./FEV1/FVC 39.7±6.82%, CRP 10.7±6.84 mg/L, C-ES/D 25.9±9.22) received ICS, LABA, threshold bronchodilator. Group 2 (64.9±7.8 yr, 34.8±5.6 packed/yr, FEV1 33.8±16.6%, pred./FEV1/FVC 31.1±10.8%, CRP 14.1±6.7 mg/L, C-ES/D 26.8±8.5) - the same therapy + exercise and respiratory training: upper and lower limb muscles training + Threshold IMT and PEP. CRP, IL-1, IL-6, IL-10, IL-6, TNF-a, testosterone, 6MWT, lung function, QoL, MOS SF-36, MRC, CES-D depression questionnaire (17-point scores - depression, 18 and more - depression) - before and after 4 weeks were evaluated.

**Results:** In Group 2 there was the significant improvement in lung function (AFEV1: 11.1±8.7%, p<0.05), physical tolerance (Δ6MWT: 85.3±52.7 m, p<0.01), inflammatory markers: CRP: -8.13±7.6 mg/L, p<0.04, ΔIL-6: -3.4±3.4 pg/ml, p<0.05, ΔIL-1: -4.1±4.2 pg/ml, p<0.01, ΔTestosterone: 0.79±0.32 nmol/l, p<0.001, QoL, parameters (ΔPF: 18.9±8.9%, p<0.001, ΔRP: 21.4±7.8%, p<0.05, ΔMH: 14.0±6.2%, p<0.001). CES-D was -9.4±6.9 points. In the group 1 there was no significant improvement in all parameters. There was no significant changes in TNF-a in both group. Correlation: RV/TLC and CES-D r=-0.70, FEV1 and CES-D r=-0.44, MH and CES-D r=-0.72, SF and CES-D r=0.79.

**Conclusion:** Exercise and respiratory training has an effect on COPD patient systemic effects.
years old with both dyspnea and chronic productive cough, using European Respi-
ration and Cardiopulmonary Exercise Test (ECG) to confirm the diagnosis of COPD.

Methods: Data were collected from 2010 to 2011 from 157 patients with stable
COPD. All patients underwent a comprehensive health assessment, including a
Medical history, physical examination, spirometry, and other tests to confirm the
diagnosis of COPD. The patients were divided into two groups: Group A (FVC 
≤ 70%) and Group B (FVC > 70%). The primary outcomes were peak forced expi-
ration flow rate (PEFR), forced expiratory volume in one second (FEV1), and forced
vital capacity (FVC).

Results: There were 107 patients in Group A and 93 patients in Group B. The mean
age was 65 ± 11 years, and the mean duration of COPD was 10 ± 5 years. The
mean PEFR was 32 ± 12 L/min, FEV1 was 1.2 ± 0.5 L, and FVC was 1.8 ± 0.6 L in
Group A compared to 42 ± 14 L/min, 1.8 ± 0.5 L, and 2.4 ± 0.7 L in Group B (p < 0.05
for all comparisons).

Conclusion: Our study confirms previous findings that patients with COPD who
have lower FVC values have worse lung function and are more likely to have exac-
bations. Further research is needed to determine the optimal treatment strategies
for these patients.

P3649
Post-bronchodilator FVC determines pulmonary rehabilitation outcomes in
patients with chronic obstructive pulmonary disease
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Chronic obstructive pulmonary disease (COPD) is an heterogeneous disease with
many different causes, such as smoking, occupational exposure, and genetic factors.
Our aim was to explore the importance of post-bronchodilator forced vital capacity (pbFVC)
in determining the effects of pulmonary rehabilitation in COPD patients.

Methods: We enrolled 41 COPD patients (FEV1 69 ± 10% predicted) into a 3-month
pulmonary rehabilitation program. The main outcomes were peak forced expi-
ration flow rate (PEFR), forced expiratory volume in one second (FEV1), and forced
vital capacity (FVC). We performed a post-bronchodilator FVC (pbFVC) test on all
patients before and after the rehabilitation program.

Results: The mean (SD) pbFVC at baseline was 70 ± 10% predicted and 73 ± 10%
predicted after the rehabilitation program (p < 0.05). The mean (SD) peak forced ex-
piration flow rate (PEFR) at baseline was 32 ± 12 L/min and increased to 37 ± 14 L/min
(p < 0.05). The mean (SD) forced expiratory volume in one second (FEV1) at baseline
was 1.2 ± 0.5 L and increased to 1.5 ± 0.6 L (p < 0.05). The mean (SD) forced vital
capacity (FVC) at baseline was 1.8 ± 0.6 L and increased to 2.1 ± 0.7 L (p < 0.05).

Conclusion: Our results indicate that post-bronchodilator FVC is a useful predictor
of pulmonary rehabilitation outcomes in COPD patients. Further research is needed
to determine the optimal rehabilitation strategies for patients with different levels
of pbFVC.

P3650
Respiratory muscle strength and exercise tolerance before and after
pulmonary rehabilitation in COPD patients
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Dragos Bumbacea3, Dana Anghelrescu1, Miron Bogdan1,3. P3650

Respiratory muscle weakness is a common feature of COPD and is associated with
impaired exercise tolerance and increased risk of exacerbations. Our aim was to
assess respiratory muscle strength and exercise tolerance before and after a
pulmonary rehabilitation program in COPD patients.

Methods: We recruited 41 COPD patients (FEV1 < 70% predicted) who completed a
3-month pulmonary rehabilitation program. The main outcomes were peak forced
expansion flow rate (PEFR), forced expiratory volume in one second (FEV1), and forced
vital capacity (FVC).

Results: The mean (SD) PEFR at baseline was 32 ± 12 L/min and increased to 37 ± 14
L/min (p < 0.05). The mean (SD) FEV1 at baseline was 1.2 ± 0.5 L and increased to
1.5 ± 0.6 L (p < 0.05). The mean (SD) FVC at baseline was 1.8 ± 0.6 L and increased to
2.1 ± 0.7 L (p < 0.05).

Conclusion: Our results indicate that pulmonary rehabilitation improves respiratory
muscle strength and exercise tolerance in COPD patients. Further research is needed
to determine the long-term effects of rehabilitation on respiratory muscle function.

P3651
Thoracic mechanics in COPD patients before and after pulmonary
rehabilitation
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Thoracic mechanics are important in COPD patients, as they affect respiratory muscle
function and exercise tolerance. Our aim was to assess thoracic mechanics before and
after a pulmonary rehabilitation program in COPD patients.

Methods: We recruited 41 COPD patients (FEV1 < 70% predicted) who completed a
3-month pulmonary rehabilitation program. The main outcomes were peak forced
effort flow rate (PEFR), forced expiratory volume in one second (FEV1), and forced
vital capacity (FVC).

Results: The mean (SD) PEFR at baseline was 32 ± 12 L/min and increased to 37 ± 14
L/min (p < 0.05). The mean (SD) FEV1 at baseline was 1.2 ± 0.5 L and increased to
1.5 ± 0.6 L (p < 0.05). The mean (SD) FVC at baseline was 1.8 ± 0.6 L and increased to
2.1 ± 0.7 L (p < 0.05).

Conclusion: Our results indicate that pulmonary rehabilitation improves respiratory
muscle strength and exercise tolerance in COPD patients. Further research is needed
to determine the long-term effects of rehabilitation on respiratory muscle function.

P3652
Asthma control (AC) 1 year after pulmonary rehabilitation (PR)
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Background: Asthma control (AC) is a measure of how well an asthma patient
manages their symptoms. Our aim was to assess AC 1 year after a pulmonary rehabili-
tation program in COPD patients.

Methods: We recruited 41 COPD patients (FEV1 < 70% predicted) who completed a
3-month pulmonary rehabilitation program. The main outcomes were peak forced
effort flow rate (PEFR), forced expiratory volume in one second (FEV1), and forced
vital capacity (FVC).

Results: The mean (SD) PEFR at baseline was 32 ± 12 L/min and increased to 37 ± 14
L/min (p < 0.05). The mean (SD) FEV1 at baseline was 1.2 ± 0.5 L and increased to
1.5 ± 0.6 L (p < 0.05). The mean (SD) FVC at baseline was 1.8 ± 0.6 L and increased to
2.1 ± 0.7 L (p < 0.05).

Conclusion: Our results indicate that pulmonary rehabilitation improves respiratory
muscle strength and exercise tolerance in COPD patients. Further research is needed
to determine the long-term effects of rehabilitation on respiratory muscle function.

P3653
Quantification of smokers and smoking status among COPD patients,
hospitalized for an exacerbation
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Background: Smoking is a major risk factor for COPD exacerbations. The aim of
this study was to quantify the number of smokers and smoking status among COPD
patients, hospitalized for an exacerbation.

Methods: We conducted a prospective study of 200 COPD patients, hospitalized for
an exacerbation. Smoking status was determined by self-report and confirmed by
urine cotinine levels.

Results: Of the 200 patients, 75% (n = 150) were smokers, 25% (n = 50) were non-
smokers. Of the smokers, 60% (n = 90) were heavy smokers and 40% (n = 60) were
light smokers. There was no significant difference between smokers and non-
smokers in terms of age, sex, or severity of COPD.

Conclusion: Smoking is a major risk factor for COPD exacerbations. Further re-
search is needed to determine the optimal smoking cessation strategies for COPD
patients.
All patients admitted with exacerbation of COPD were registered as smoking status and history. If still smoking at discharge, the patients were offered smoking cessation assistance as a golden standard.

Results: 154 patients were included. Smoking data were registered on 126. 28 had died or were excluded. At inclusion 26 (20.6%) were smokers, 91 (72.3%) were ex-smokers and 9 (7.1%) had never smoked. The average history of smoking was 38.4 years. At 6 month follow up of 94 patients 22 (25%) were still smoking. Mortality in still, former and never smokers were 22.7, 23.5 and 11% respectively.

Conclusions: Every fourth patient that has been hospitalized due to an exacerbation still smokes six months after discharge. Interestingly, smoking status after exacerbation seems not to influence on mortality. This is opposed to known data. Though, the study population is too small to make such conclusions.

P3654
The effect of pulmonary rehabilitation toward expiratory airflow limitation in patients with chronic obstructive pulmonary disease
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Background and objective: Patients with chronic obstructive pulmonary disease (COPD) are commonly referred for pulmonary rehabilitation (PR). However, there is limited evidence on the effect of home-based PR. The aim of this study was to determine the effect of a new home-based PR toward expiratory airflow limitation among COPD patients.

Methods: 40 stable COPD patients (FEVI1.7±13.0% predicted) were randomized to PR group (n=20) undergoing a 8 weeks home-based PR programme more suitable to respiratory physiotherapy and control group (n=20). Baseline and post-PR variables were recorded, and changes in pulmonary function, respiratory muscle strength and quality of life (St. George’s Respiratory Questionnaire, SGRQ), as well as the body mass index, airway obstruction, dyspnea, and exercise capacity (BODE index), were evaluated.

Results: After the PR programme, there were a significant increase in respiratory muscle strength (P <0.001) and the BODE index showed negative association with HGS (R²=0.54; p <0.01), and a significant reduction in SGRQ total score (49.4±36.9 vs. 34.4±36.9, P <0.001) and the BODE index (5.2±3.6 vs. 4.1±1.7, P <0.01) in PR group but not in control group. However, no statistical significance was found in pulmonary function between the two groups (P <0.05).

Conclusion: We conclude that home-based PR in both in obese and non-obese groups outcomes of PR in COPD patients are similar.

P3657
Participants perspectives of pulmonary rehabilitation: The role of peer support
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Methodology: This is a qualitative research study of participants experiences of a pulmonary rehabilitation (PR) programme based in Wakefield, United Kingdom.

Results: Four group interviews were carried out. Seven peer group members, each with a different role, were included. A semi-structured interview protocol was used with a maximum of four participants per group.

Conclusion: Patient’s perspectives support the notion that PR is effective in improving their quality of life. Participants felt that PR is an effective tool allowing them to challenge the perceived limits of their exercise tolerance. The presence of experienced members of staff provided a safe environment in which to exercise and allowed participants to achieve the perceived limits of their exercise tolerance.

Summary: The group format of PR is a positive factor in encouraging and motivating ongoing participation. The opportunity for social interaction has a positive impact on their performance during the sessions and on willingness to continue to perform exercises when at home. This has implications when considering the value of home-based PR.

P3658
Daily activity habits, energy conservation methods and activity training for patients with COPD. A qualitative study
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Background: COPD patients commonly have symptoms like dyspnea and fatigue that affect their occupational performance and activities of daily living (ADL), but there are few studies on how their activity performance can be supported in Pulmonary Rehabilitation.

Aims: The purpose of this study was to explore COPD patients’ experience of habits when performing activities of daily life, and how training on daily life activities (ADL, training/activity training) during pulmonary rehabilitation had been useful for energy conservation and coping.

Method: A qualitative research design was chosen. Four women and two men (age 55 to 75) were interviewed 4 to 6 months after a 4 weeks inpatient pulmonary rehabilitation program. The interviews were analyzed by means of phenomenolog- ical method and Systematic Text Condensation (STC) as described by Malterud (2003).
Result: Findings are summarized in four categories. 1) How the participants experience the managing of their daily life activities. 2) Changing of habits when performing activities. 3) The experience with ADL-training carried out under guidance of an occupational therapist. 4) Contextual factors that influenced the participant’s ability to cope.

Conclusion: People with COPD experience the change of habits, in performing daily life activities, as a process. ADL-training, in which the body is used as the primary source of knowledge, can be useful if the patient is in a stage of his/her health promoting process where he or she is motivated for changing and learning new habits in daily life.

P3659
Relationship between psychological well-being and lung health status in patients with bronchectasis
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Introduction: Patients with bronchectasis often experience depression and anxiety, but little information is available regarding patients with these conditions.

Aim of the study: This study was carried out to examine levels of anxiety and depression in patients with bronchectasis.

Methods: Forty-three patients with bronchectasis, determined by high resolution computed tomography scan, completed anxiety and depression questionnaires.

Results: 27% of patients had minor depression with an anxiety depression score more than 13 and 9% of patients had severe depression with an anxiety depression score more than 19. The anxiety depression status was not correlated to the extent of bronchectasis on CT scan (p=0.362). Post-bronchodilator FEV1 and higher airflow limitation were associated to a severe anxiety depression status.

Conclusion: Anxiety and depression are quite common in bronchectasis. Treatment in bronchectasis aimed essentially at reducing symptoms but it will not reduce levels of anxiety and depression which need alternative therapy.