European Respiratory Society
Annual Congress 2012

Abstract Number: 2525

Publication Number: 2836

Abstract Group: 9.2. Physiotherapists

Keyword 1: COPD - management **Keyword 2:** Exercise **Keyword 3:** Physical activity

Title: Physical activity in daily life in COPD after exercise training: Are there responders, and who are they?

Ms. Nidia A. 18573 Hernandes nyhernandes@gmail.com [1,2], Ms. Thaís 18574 Sant'Anna thaisjps@yahoo.com.br [1], Mr. Carlos A. 18575 Camillo carlosaugustocamillo@yahoo.com.br [1], Dr. Vanessa S. 18576 Probst vanessaprobst@uol.com.br [1,2] and Dr. Fabio 18577 Pitta fabiopitta@uol.com.br [1]. [1] Laboratório de Pesquisa em Fisioterapia Pulmonar (LFIP), Departamento de Fisioterapia, Universidade Estadual de Londrina (UEL), Londrina, Brazil and [2] Centro de Pesquisa em Ciências da Saúde (CPCS), Centro de Ciências Biológicas e da Saúde, Universidade Norte do Paraná (UNOPAR), Londrina, Brazil .

Body: Background: Previous studies have shown that patients with chronic obstructive pulmonary disease (COPD) generally do not increase their level of physical activity in daily life (PADL) after short-lasting exercise programs. However, as PADL is influenced by several factors, there are individual patients who respond positively becoming more active in daily life. Aims: To study the proportion and profile of patients with COPD who become more active in daily life after a 12-week exercise training program (responders). Methods: 23 patients (15 men, 66±8yrs, $FEV_1$42±16%pred) completed an exercise training protocol (endurance and strength exercises, 3x/week, 12 weeks). PADL was assessed by an activity monitor (Sensewear®, BodyMedia) which registered the time spent in physical activities of at least moderate intensity (TPA>mod). Other assessments were socio-economic and functional status, quality of life, exercise capacity, respiratory and peripheral muscle force. Responders were those who increased TPA>mod after the protocol. Results: 12 patients (52%) were responders (TPA>mod 10[3-28]min/day pre vs. 32[10-38]min/day post; p=0.002; median[IQR]). The proportion of physically active patients (i.e. TPA>mod ≥30min/day) increased after the protocol (26% vs. 39%, p=0.01). Although responders and nonresponders had similar physical and functional capacity, responders tended to present exertional desaturation (p=0.076), lower age (p=0.055) and live alone (p=0.089). Conclusions: These preliminary findings suggest that around half of patients with COPD increase their level of PADL after a 12-week exercise training program. Responders tend to be younger, live alone and desaturate during exertion.