

# European Respiratory Society Annual Congress 2013

**Abstract Number:** 1682

**Publication Number:** P5067

**Abstract Group:** 9.2. Physiotherapists

**Keyword 1:** Bronchiectasis **Keyword 2:** Exercise **Keyword 3:** Physiology

**Title:** Physiological responses to the 6-min walk test and incremental shuttle walk test in adults with non-cystic fibrosis bronchiectasis

Mr. Anderson 2680 Alves de Camargo a-a-c@hotmail.com<sup>1</sup>, Ms. Tatiane 2727 Soares Amaral fisio.tatiane@hotmail.com<sup>1</sup>, Ms. Samia 2681 Zahi Rached samia.rached@gmail.com<sup>2</sup>, Mr. Rodrigo 2682 Abensur Athanazio rathanazio@yahoo.com.br<sup>2</sup>, Prof. Dr Fernanda 2729 de Cordoba Lanza lanza@uninove.br<sup>1</sup>, Prof. Dr Alberto 2683 Cukier alberto.cukier@incor.usp.br<sup>2</sup>, Mr. Frederico 2730 Leon Arrabal Fernandes fredlaf@gmail.com<sup>2</sup>, Prof. Dr Celso Ricardo 2684 Fernandes Carvalho cscarval@usp.br<sup>3</sup>, Prof. Dr Rafael 2685 Stelmach rafael.stelmach@incor.usp.br<sup>2</sup> and Prof. Dr Simone 2695 Dal Corso simonedc@uninove.br<sup>1</sup>. <sup>1</sup> Postgraduate Program in Rehabilitation Sciences, Universidade Nove De Julho, Sao Paulo, Brazil ; <sup>2</sup> Pulmonary Division, Heart Institute (InCor), Hospital Das Clinicas Da Faculdade De Medicina Da Universidade De São Paulo, Sao Paulo, Brazil and <sup>3</sup> Physiotherapy, School of Medicine, Hospital Das Clinicas Da Faculdade De Medicina Da Universidade De São Paulo, Sao Paulo, Brazil .

**Body:** Introduction: To our knowledge, there have been no previous studies on physiological adaptations during field walking tests in adults with non-cystic fibrosis bronchiectasis (nCF-BCt). Objective: To compare metabolic and cardiopulmonary responses during the 6-min walk test (6MWT) and the incremental shuttle walk test (ISWT) in patients with nCF-BCt. Methods: Twenty-one subjects (13 male; 45 ± 12 yrs; FEV1 % pred: 57 ± 7; MRC: 2 ± 1) were included. The subjects were randomized to perform two 6MWTs (30 min apart) and two ISWTs (30 min apart), on different days. The test with the best performance (greater distance) was used for comparison. During the tests, pulmonary gas exchange was measured (VO2000; Medical Graphics Corporation, St. Paul, MN). Results: See Table 1.

Table 1. Variables at the peak of 6MWT and ISWT.

	6MWT	ISWT
Distance, m	561 ± 67	485 ± 97*
Duration, min	6 ± 0	7.4 ± 1*
VO2, L (% pred)	1.43 ± 0.45 (83 ± 28)	1.46 ± 0.45 (84 ± 22)
VCO2, L	1.89 ± 0.65	1.91 ± 0.71
VE, L/min	34 ± 9.1	34 ± 9.5
HR, bpm (% pred)	144 ± 17 (82 ± 12)	140 ± 17 (80 ± 9)
SpO2, %	91 ± 4	91 ± 6

Dyspnea	4.6 ± 2.2	4.7 ± 2.4
Leg fatigue	4.7 ± 2.3	4.9 ± 2.0

\*P < 0,05

Conclusion: Although subjects walked a greater distance in the 6MWT, both tests elicited similar physiological responses at peak exercise.