

Abstract P230 Table 1

Age (gender)	Relevant co-morbidities	CPET findings	Pre-trial questionnaire scores	Post-trial questionnaire scores
17 (F)	Asthma	Pre-test hyperventilation which resolved on exercise	NQ = 7, SEBQ = 5	To be completed
73 (F)	None	Mixed dysfunctional breathing and hyperventilation	NQ = 13, SEBQ = 21	To be completed
57 (M)	None	Normal	NQ = 18, SEBQ = 11	NQ = 19, SEBQ = 6
77 (F)	Asthma	Mixed dysfunctional breathing and hyperventilation	NQ = 20, SEBQ = 20	NQ = 21, SEBQ = 15
36 (F)	Fibromyalgia, Anxiety	Pre-test hyperventilation which partially resolved on exercise	NQ = 39, SEBQ = 44	NQ = 32, SEBQ = 27
25 (M)	Asthma	Mixed dysfunctional breathing and hyperventilation	NQ = 42, SEBQ = 69	To be completed
20 (F)	Asthma	Pre-test hyperventilation which resolved on exercise	NQ = 34, SEBQ = 64	To be completed
59 (F)	None	Mixed dysfunctional breathing and hyperventilation	NQ = 16, SEBQ = 21	NQ = 7, SEBQ = 9
75 (F)	Pulmonary embolism, Anxiety	Hyperventilation	NQ = 27, SEBQ = 19	NQ = 18, SEBQ = 9
62 (F)	Asthma	Normal	NQ = 39, SEBQ = 48	NQ = 30, SEBQ = 24
68 (F)	None	Normal	NQ = 19, SEBQ = 31	To be completed
63 (M)	Pulmonary fibrosis	Hyperventilation	To be completed	To be completed
26 (F)	Fibromyalgia, Anxiety	Mixed dysfunctional breathing and hyperventilation	To be completed	To be completed
25 (M)	Respiratory arrest, Asthma	Mixed dysfunctional breathing and hyperventilation	To be completed	To be completed

Mean [SD]

REFERENCE

- 1 Stanton AE, Vaughn P, Carter R, Bucknall CE. An observational investigation of dysfunctional breathing and breathing control therapy in a problem asthma clinic. *Journal of Asthma* 2008;**45**(9):758–765.

P231 BREATHING PATTERN DISORDERS IN A COMPLEX BREATHLESSNESS SERVICE; CLASSIFICATION AND CLINICAL CHARACTERISTICS

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Background and aim Many patients presenting to our complex breathlessness service appear to have breathing pattern disorders (BPDs). When suspected clinically, they are referred to a specialist respiratory physiotherapist for assessment and treatment. Here we describe the prevalence of identifiable breathing patterns and their clinical characteristics

Methodology We performed a retrospective review of our clinical database including patients seen for initial physiotherapy assessment between December 2015 and June 2016. Patients underwent a standardised diagnostic assessment (clinical history, physiotherapy assessment, lung function and Nijmegen questionnaire).

Results Data from 43 patients with confirmed BPD were included, 77% female, mean age 58 yrs. Relevant respiratory comorbidities included chronic cough (33%), asthma (30%) and vocal cord dysfunction (30%), with no comorbidity in 23%. Other associated conditions included musculoskeletal conditions (47%), chronic pain (44%), obesity (44%), nasal blockage (42%) and anxiety (31%). Four categories of breathing patterns were identified: thoracic dominant (58%), irregular/crescendo (51%), forced abdominal expiration (30%), and thoraco-abdominal asynchrony (2%). More than one BPD was seen in 35% of patients; only forced abdominal expiration and thoracic dominant didn't co-exist. Conversely all pattern types could be found in isolation, although irregular/crescendo was more likely to co-exist with another pattern type.

Conclusion Four separate breathing pattern types were identified, in isolation or in combination. Although anxiety was fairly common, many other associated disease and conditions were seen, especially relating to biomechanical factors. This preliminary data may enable clinicians to identify breathing pattern types, lead to the development of targeted treatment options and promote screening of particular conditions associated with BPD.

P232 DOES ONE MODEL OF PULMONARY REHABILITATION FIT ALL? A MODIFIED APPROACH TO PULMONARY REHABILITATION

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Introduction and objectives Pulmonary Rehabilitation (PR) is defined as a multidisciplinary programme for patients with chronic respiratory impairment that is individually tailored and designed to optimise each patient's physical and social performance and autonomy (NICE, 2010). Our service was involved in RCP PR Pilot Accreditation Scheme.

Individuals MRC 2–5, functionally limited by breathlessness are referred to PR (BTS, 2013). There is a wide spread of functional disability and breathlessness for these individuals. Does one approach to PR address the needs of all patients within these broad groupings?

Aims Modifying PR may improve attendance and completion of full PR for patients MRC5.

Methods Following service review, Modified Programme was offered; 2 × Gym Sessions and education. Session one; patients difficulties were discussed. Breathing control techniques, improved posture and lung inflation were demonstrated. Daily home exercises were promoted. Following 2 weeks of homework, the patients were invited to a review. Any improvement in breathlessness and confidence was discussed with the patients offered Full PR where appropriate.