

P47 **OUTCOMES OF STATIC VS CONTINUOUS ROLLING COMMUNITY PULMONARY REHABILITATION (PR) PROGRAMMES**

doi:10.1136/thx.2010.150961.47

JL Tomkinson, M Rossdale. *Bristol Community Health, Bristol, Bristol*

Introduction & objectives Previous research in PR has focussed on duration and location of courses, and models of exercise therapy. In order to meet a commissioning adherence target for 2009–2010, the Bristol community PR team modified stand alone static programmes (SP) (6 week) seeing 150 people per year to add in a continuous rolling programme (CRP) (2–4 new patients start every week attending 6 weeks) with the aim of improving adherence to programmes. The objective of this study was to examine if the outcomes of a CRP were as effective as the SP.

Method Retrospective analysis of outcome data for year 2009–2010 for improvement in 6min walk test (m), change in Chronic Respiratory Disease Questionnaire (CRDQ), and attendance. Patients were offered a choice of programme at their initial clinic assessment.

Results Results for the two groups are shown in Abstract P47 Table 1. There were no significant differences between groups at baseline. The CRP had 55 (174%) more patients complete the programme throughout the year. There was no significant difference between groups for improvement in walking distance, attendance or CRDQ-D, CRDQ-F or CRDQ-EF. There was a significant improvement in the CRDQ-M in the CRP group.

Abstract P47 Table 1 Comparison data for static and rolling programmes 2009–2010

	Static programme (n=100)	Continuous rolling programme (n=174)	p-value
Change in 6MWT (m)	119 (92.4)	102 (87.5)	0.42
Mean (SD) change in CRDQ-D	0.98 (1.07)	0.99 (1.12)	0.76
Mean (SD) change in CRDQ-F	0.93 (1.15)	0.90 (1.01)	0.70
Mean (SD) change in CRDQ-EF	0.57 (1.07)	0.78 (1.16)	0.15
Mean (SD) change in CRDQ-M	0.72 (1.01)	0.97 (1.02)	0.05*
Mean (SD) attendance	8 (4.2)	8.5 (4.3)	0.37
Number of patients attending 8/12 sessions (completers) (%)	72 (72)	127 (73)	

6MWT. 6 min walk test; CRDQ: Chronic Respiratory Questionnaire, self-reported, D-Dyspnoea, F-Fatigue, EF-Emotional Function, M-Mastery: Attendance out of 12 possible sessions.

Conclusion This audit shows that the outcomes for a CRP are as good as SP and can be used as an effective method of delivering PR. Both groups require the same amount of staff time; however the CRP saw more patients and had more completers. This may be as cohorts of COPD patients often lose members which can reduce SP's by up to 33%. Within a CRP as patients drop out, new patients can be started keeping the cohort at a set level, thus allowing more patients to be seen. There appears to be a positive effect on CRDQ mastery with patients scoring significantly higher on this in the CRP. This may be an effect of patients who have attended for a while taking on the role as 'experienced buddy' helping the naive patient (Heisler 2009), however further research to investigate this is warranted.

Pulmonary rehabilitation

P48 **ATTENDANCE RATES AND RESPONSE TO PULMONARY REHABILITATION**

doi:10.1136/thx.2010.150961.48

CM Nolan, KA Ingram, RP Fowler, AL Clark, WD Man. *Harefield Pulmonary Rehabilitation Team and Biomedical Research Unit, Royal Brompton and Harefield NHS Foundation Trust, Harefield, Middlesex, UK*

Background Although randomised controlled trials and meta-analyses have demonstrated that pulmonary rehabilitation (PR) improves exercise capacity, there is a variability of response and a proportion of PR participants have not shown clinically significant improvements. We hypothesised that attendance record is an important determinant of exercise response to PR.

Methods 116 consecutive participants, who attended and completed an outpatient PR programme between September 2009 and June 2010, were included in the study. Subjects attended supervised PR twice per week for 8 weeks, with daily unsupervised home exercise. 107 subjects had pre- and post-PR data. Attendance rate at the supervised sessions was recorded, and good attendance was defined a priori as 75% or more attendance. Changes in incremental shuttle walk (ISW) pre- and post-PR were calculated for good and poor attendance groups and compared using Mann–Whitney test. Spearman rank correlation and univariate regression was used to assess the relationship between attendance rate and change in ISW following PR.

Results Results were expressed as mean (SD) or median (25th – 27th centiles). Patient baseline characteristics were as follows: 55M, 52F; age: 69 (63, 76), FEV1: 1.28 (0.85, 1.89), MRC dyspnoea score; 3 (3, 4), BMI: 27.4 (23.7, 32.1) and ISW: 180 (80, 320). Mean attendance rate was 83 (17)%. There was no significant difference in age, MRC dyspnoea score and ISW between good and poor attendance groups. Median change in ISW following PR was significantly better in the good attendance group compared with the poor attendance group (60 vs 10 m; <0.02). Although Spearman rank correlation was significant (Spearman $r=0.21$; $p=0.03$), there was no significant linear relationship ($r^2=0.01$; $p=0.35$) between attendance rate and change in ISW following PR.

Discussion Patients attending more than 75% of PR sessions improve ISW distance in response to PR more than those attending less than 75% although the effects of confounding factors cannot be excluded. There is no linear relationship between attendance rate and improvement in ISW. There are likely to be multiple factors determining response to PR.

P49 **SEASONAL EFFECT UPON ATTENDANCE AT A PULMONARY REHABILITATION PROGRAMME**

doi:10.1136/thx.2010.150961.49

GE Walker, C Lee, SL Elkin. *Chest and Allergy Department, St Mary's Hospital, Imperial College Healthcare NHS Trust, London, UK*

Introduction Pulmonary rehabilitation (PR) programmes have been shown to reduce symptoms and improve exercise tolerance in COPD. Improving rates of attendance at PR sessions is vital to ensuring a cost-effective service. The role of seasonality in attendance at PR programmes has not previously been evaluated.

Methods Attendance rates, between 2007 and 2010, at a PR programme in one London borough were reviewed. The number of patients attending assessment and subsequent bi weekly PR sessions