The aim of this study was to establish whether delaying the offer of rehabilitation would be effective and acceptable to patients who have recently been hospitalised for an AE of their COPD.

Methods A randomised controlled trial was conducted. Patients were randomised to PEPR or delayed PEPR (D-PEPR) following hospitalisation for an AECOPD. Both programmes were the same, consisting of twice weekly, six-week hospital based programme (exercise and education). PEPR commenced within four weeks of hospital discharge and D-PEPR commenced 7 weeks after this. The primary outcome was the Incremental Shuttle Walking test (ISWT), secondary measures were the Endurance Shuttle Walk Test (ESWT).

Results Thirty six patients consented and were assessed (14 male, mean (SD) age 66.03 (7.64) years, FEV_1 1.18 (0.48) litres, ISWT 225 (160.77) metres, ESWT 222 (151.09) seconds. We observed important improvements in the PEPR group. However, only 6 patients out of 12 assessed in the D-PEPR group remained during the control time prior to the programme commencing of which 3 patients went on to complete all of D-PEPR (Table 1).

Abstract P138 Table 1 Mean changes with 95% CI for patients who completed pulmonary rehabilitation

	Early PR (n = 14)	D-PEPR at 7 weeks (n = 6)	Post D-PEPR (n = 3)
ISWT (Metres)	28.67 (51.49 to 5.85)*	13.33 (52.97 to 26.31) p = 0.427	40.00 (139.37 to 59.37)
ESWT (Seconds)	250.10 (407.98 to 92.16)*	23.20 (259.87 to 213.47)	283.33 (1302.90 to 736.23)

*P < 0.05.

Conclusion PEPR is effective and no natural recovery was observed. Although small numbers, acceptability and completion for D-PEPR was even worse than PEPR. D-PEPR does not seem a feasible alternative to PEPR.

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P139 INVESTIGATING THE PROFILE OF PHYSICAL ACTIVITY IN COPD PATIENTS 7 DAYS POST DISCHARGE FROM A RESPIRATORY-RELATED ADMISSION. DOES BRIEF ADVICE HAVE AN EFFECT?

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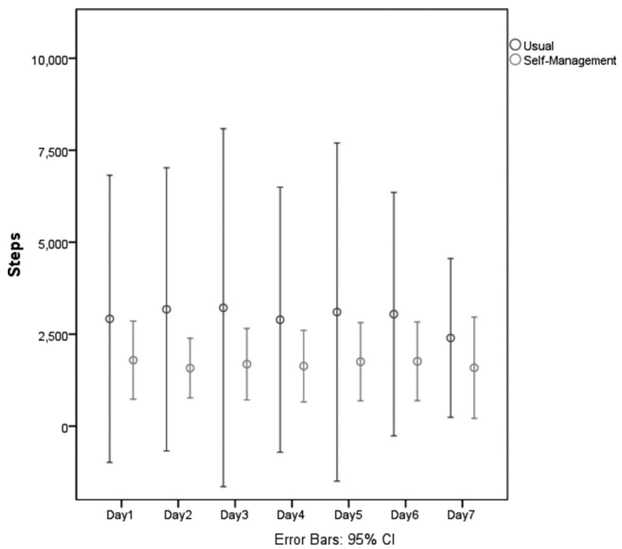
Introduction and objectives There is a relationship between Physical Activity (PA) and both readmissions and mortality.[1] PA in COPD in the immediate period following hospital admission and discharge has not received much attention. This study aimed to investigate the profile of PA in the 7 days following discharge from a respiratory-related admission. Additionally, we explored whether brief PA advice (given as part of a self-management (SM) manual) would improve the rate of recovery, compared to usual care.

Methods The study was a Randomised Controlled Trial. Those randomised to UC were discharged with standard treatment and follow-upon addition, those allocated to the SM group received brief advice PA advice in the form of a SM manual (SPACE FOR COPD). All patients wore the 'Sensewear' armband (SWA) monitor for 7 days post-discharge for 12 waking hours/day. Outcomes collected were: Total Energy Expenditure (TEE), Steps, Physical Activity Level (PAL) and time spent in light, moderate and vigorous activity.

Results Activity data was collected on 25 patients with COPD, UC = 10, SM = 15. Mean (SD) Age-67.7(7.2) years, FEV-1.01(0.43) L, MRC grade-3.8(1. X), 14 Females, 11 Males. Figure 1 shows the serial measures of steps over 7 days. There were no significant differences in physical activity at baseline between the groups. There was little fluctuation in steps over 7 days and the change was not significant from Day 1–Day 7, within in each group. Furthermore, there was no significant difference between the groups. This was the same for all of the other activity monitor data.



Abstract P139 Figure 1

Conclusion We found there was no improvement in steps in the 7 days post-discharge, despite PA advice given in the SM group. It may be that the advice was too brief or that 7 days was not long enough to witness an effect. Further research is required to investigate the effects of an exacerbation and SM interventions on PA; capturing PA data prior to, during and after an admission would be of value.

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P140 EFFECTS OF INDACATEROL/GLYCOPYRRONIUM ON LUNG FUNCTION AND PHYSICAL ACTIVITY IN PATIENTS WITH MODERATE TO SEVERE COPD

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Rationale Indacaterol/glycopyrronium (IND/GLY, QVA149) is a combination of a long-acting beta-2 agonist and a muscarinic receptor antagonist for the once-daily treatment of COPD. Here we assessed the effects of indacaterol/glycopyrronium on lung function and physical activity compared with placebo.
Methods We performed a randomised, two-period, cross-over study (21 days of treatment separated by a wash-out period of 14 days) with IND/GLY 110 µg/50 µg or matching placebo. Lung function was measured by slow and forced spirometry. Physical activity was measured by an activity monitor (Bodymedia SenseWear Armband) over the last week of each treatment period. The primary endpoint was peak inspiratory capacity (IC) at the end of each treatment period (i.e., on Day 21). The co-primary endpoint was physical activity level as defined by daily activity-related energy expenditure (kcal/day). Secondary endpoints included number of steps per day, duration of at least moderate activity per day, peak IC and FEV_1 on Day 1, trough IC on Day 1, and trough IC and FEV_1 on Day 21.
Results 194 patients (mean age 63 years; mean postbronchodilator FEV_1 61.6% predicted), were randomised; 183 patients completed the study. Peak IC on Day 21 was 0.202 L greater with IND/GLY compared to placebo ($p < 0.001$; Table 1). In addition, superiority of indacaterol/glycopyrronium over placebo with regard to other parameters of lung function was demonstrated (Table 1). Compared with placebo, indacaterol/glycopyrronium significantly increased the change from baseline in average physical activity level with a difference of 36.7 kcal/day. Further, IND/GLY -treated patients completed significantly more steps per day with a difference between the two treatment groups of 358.0 steps per day (Table 1).
Conclusion Compared with placebo, IND/GLY improved lung function and physical activity in patients with moderate to severe COPD.

Abstract P140 Table 1

		IND/GLY vs PBO
IC (Day 21)	peak (primary)	0.202L
		p < 0.001; 95% CI: 0.158–0.246
	trough	0.198L
		p < 0.001; 95% CI: 0.151–0.245
IC (Day 1)	peak	0.260L
		p < 0.001; 95% CI: 0.219–0.297
FEV_1 (Day 1)	peak	0.220L
		p < 0.001; 95% CI: 0.189–0.251
FEV_1 (Day 21)	peak	0.136L
		p < 0.001; 95% CI: 0.102–0.170
	trough	0.277L
		p < 0.001; 95% CI: 0.244–0.311
Activity related energy expenditure (kcal/day)		36.713
(co-primary)		p = 0.0399; 95% CI: 1.724–71.701
Average physical activity level (PAL)		0.0237
		p = 0.0191; 95% CI: 0.004–0.043
Change from baseline in average number of steps		358.0
(Friedman's test)		p = 0.0288; (SD = 2457.95)
Duration of at least moderate activity per day		4.382
(min/day)		p = 0.2637; 95% CI: -3.333 – 12.098

P141 AN EVALUATION OF THE ACCEPTABILITY OF SUPERVISED WARD-BASED EXERCISE FOR PATIENTS ADMITTED TO HOSPITAL FOR ACUTE EXACERBATION OF COPD

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Introduction Patients with COPD demonstrate peripheral muscle dysfunction and reduced physical activity. Both are compounded by admission for acute exacerbation (AECOPD). Supervised exercise during AECOPD has been shown to be safe and may ameliorate these deleterious physical effects. Debate remains as to the acceptability of exercise for patients admitted with AECOPD.
Objective To evaluate the acceptability of supervised exercise for patients admitted with AECOPD.
Methods Patients admitted with AECOPD between December 2013 and August 2014 were included if medically stable, had no other limiting factor to exercise and consented to participate. Physiotherapists prescribed a standardised progressive exercise programme comprising daily upper/lower limb strengthening exercises and walking, supervised by a physiotherapy assistant. Patients completed a self-reported Likert scale questionnaire on discharge. Data collection included MRC Dyspnoea score, COPD Assessment Test (CAT), Timed Up and Go (TUAG) and 4-metre gait speed (4MGS).
Results 150 patients were screened, 78 (52%) participated. Mean (SD) age 70(10) years, 50% female, median (IQR) length of stay 7(5 -12) days, median number of exercise sessions 2(1–3). Median MRC 4(4–5) (n = 60); mean CAT at baseline 26 with a mean change of -3.7 (n = 50).

71 patients completed the questionnaire. 89% felt happy to participate in exercise when approached by a physiotherapist. 93% reported being able to undertake the exercises taught, 80% felt very or fairly confident to continue at home. 82% felt the exercise improved their ability to carry out functional tasks. 34% recalled previously completing Pulmonary Rehabilitation.

Analysis of those who completed TUAG and 4MGS pre and post intervention (n = 15) showed mean baseline values of 23.7 (10.7) secs and 0.44(0.21) mps respectively; mean changes of -6.8(9.45) secs and +0.08(0.16) mps respectively.
Conclusions Supervised exercise is acceptable to patients admitted with AECOPD, even in those demonstrating significant frailty. However, the non-participation rate was high, reasons for which are unknown. It is unclear whether the improvement in health status and functional mobility during admission was due to exercise participation or natural recovery. Further work is required exploring the impact of initiating exercise during admission on physical activity behaviours post discharge as well as reasons for non-participation during admission.

P142 REDUCED ALL CAUSE HEALTHCARE UTILISATION AFTER BREATHING RETRAINING FOR DYSFUNCTIONAL BREATHING

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Introduction There are few controlled studies to prove the effectiveness of breathing retraining in the management of