

**Abstract P134 Table 1** A comparison between Two-Legged (TLC) vs. One Legged (OLC) Constant Work Rate (CWR) exercise tests

Peak values	TLC-CWR	OLC-CWR	p
Duration, min	6.1 (3.7)	22.7 (15.0)	0.001
Power, W	68.5 (24.3)	34.3 (12.2)	<0.001
Work, kJ	26.7 (20.6)	53.4 (48.3)	0.02
VE Peak, L/min	70.0 (23.0)	61.6 (28.1)	0.03
HR, beats/min	118 (20)	108 (20)	0.04
Borg Score, Dyspnoea *	6 (2)	5 (3)	0.13
Borg Score, Leg Effort *	15(3)	17 (4)	0.02
SpO <sub>2</sub> %	87 (7)	89 (6)	0.03

Mean SD, \* = median IQR, SpO<sub>2</sub> = oxygen saturation by pulse oximetry.

**Conclusion** OLC at the same muscle-specific power compared to TLC enabled patients with IPF to achieve almost double the work in a simulated exercise training session. Future research should investigate OLC as a potentially efficacious aerobic training strategy for patients with IPF.

## REFERENCES

- 1 Bjorgen SJ. *Eur J Appl Physiol* 2009;**106**:501–507
- 2 Dolmage TE. *Chest* 2008;**133**:370–376

## P135 PHYSICAL ACTIVITY PROFILE OF PATIENTS WITH COPD DURING AN EXERCISE CLASS: WHAT ARE PATIENTS ACTUALLY DOING EARLY IN THE REHABILITATION COURSE?

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**Introduction and objectives** Pulmonary rehabilitation (PR) is recommended by the British Thoracic Society for patients that suffer from COPD; it is typically delivered in supervised sessions. Daily physical activity (PA) is often recorded as an outcome following PR, with variable results. National guidelines recommend that older adults should accumulate 150 min of moderate intensity activity in bouts of 10 min or more. We wanted to objectively measure the amount and intensity of PA, which patients actually accumulate during 1 PR session. This is the first study to profile PA during a PR exercise class in this way and could be useful for home training and general PA advice.

**Methods** We conducted a prospective study on patients diagnosed with COPD that were enrolled for PR at Glenfield Hospital, Leicester. 12 PR sessions include walking [85% speed derived from the incremental shuttle walk test (ISWT)], leg/arm bike, and resistance training. We placed Sense-Wear™ monitors (SWM) on the patients' arm during session 2 only. Analysis took place on Innerview™ computer software.

**Results** The patient cohort consisted of 20 patients: 60% female, mean age of 70.1 years (SD = 8.3 years), BMI 28.6 (SD 7.9), FEV<sub>1</sub>/FVC ratio 60.8 (SD 17.3). 90% of the patients were either smokers or ex-smokers. The baseline ISWT of the group was 199.5 (SD 145.0) metres.

Table 1 shows that in our cohort, patients were exercising in the 0–1.5 METs range for 52% of the time (sedentary activity),

1.5–3 METs – 31% of the time (light activity) and for 17% of the time, they were exercising above 3 METs (moderate activity).

**Abstract P135 Table 1**

	Mean	Std. Deviation
On Body Time (mins)	42.3	7.4
Total Energy Expenditure (cals)	96.0	30.1
Steps	653.8	539.1
Average METS	1.9	0.4
–1.5 MET time (mins)	22.3	9.0
1.5–3 MET time (mins)	12.9	6.6
>3 MET time (mins)	7.1	5.9

**Conclusion** The results highlight that, early in the PR programme COPD patients were not achieving 10 min of moderate intensity activity during 1 PR session, as recommended in national guidance. However, documented inaccuracies of the SWM, for instance at slow speeds of walking and when the arm is fixed may account for these results. Future work should aim to discover if the time spent above 3 METs increases later in the programme. In addition, we could use the PA profile of each patient to tailor home and class training progression.

## P136 DO STRUCTURED EXERCISE CLASSES FOR INPATIENTS WITH COPD INCREASE COMMUNITY PULMONARY REHABILITATION (PR) REFERRAL AND COMPLETION RATES?

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**Introduction** NICE recommends community PR as an essential component of chronic obstructive pulmonary disease (COPD) management,<sup>1</sup> although nationally mean uptake is only 15%.<sup>2</sup> PR has been proven to improve quality of life and to be cost effective.<sup>1</sup> Our team routinely assess and refer COPD inpatients to PR, however, many decline referral. We piloted an inpatient exercise class with the objective of increasing referrals to PR and explored the reasons patients declined referral.

**Methods** Patients admitted with an acute exacerbation of COPD (June–November 2014) were given the opportunity to attend a Physiotherapy-led exercise class twice weekly. Baseline referral and completion rates to PR were calculated over two separate months during 2013–2014 and comparisons made with rates for the class attendees.

**Results** Baseline referral rate to PR was calculated at 25%. 50 patients were offered in-patient exercise during the study; 30 agreed (60%). PR referral rate for patients who attended the inpatient class was 57% compared with 40% of those who did not. Baseline PR completion rate was 15%. In those exposed to in-patient exercise, completion rose to 18%. In the group declining inpatient exercise only 13% completed PR. The reasons for declining subsequent referral to PR are outlined in Figure 1.