THE IMPACT OF A 3-MONTH BEHAVIOURAL TELE-COACHING INTERVENTION ON PHYSICAL ACTIVITY AND QUALITY OF LIFE AT 12 MONTHS FOLLOWING LUNG TRANSPLANTATION

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Introduction Despite improvements in pulmonary function, physical activity (PA) levels remain significantly lower than the general population, even at 1 year following lung transplantation (LTx). Previously, we have presented on the feasibility and short-term outcomes of a behavioural PA tele-coaching (TC) intervention following LTx. This study aims to investigate the longer-term effects of this intervention on PA levels and health-related quality of life (HRQoL).

Methods LTx recipients were randomised to 3 months of TC or usual care (UC) following hospital discharge. TC consisted of a pedometer and smartphone app, allowing transmission of activity data to a platform that provides feedback, activity goals, education, and contact with the researcher as required. At 3 months, participants retained the pedometer but access to the platform was removed. Outcomes assessed at baseline (hospital discharge), 3- and 12-months post discharge included accelerometer (Actigraph GT3x) PA outcomes (steps/day, movement intensity) and HRQoL (SF-36 questionnaire).

Results 23 LTx recipients were recruited (ILD n=13; COPD n=6; CF n=2; PAH n=2) and randomised (TC: n=12, UC: n=11). At 12 months, 4 patients were lost to follow up (TC: n=2, UC n=2) and 2 patients were deceased (UC: n=2). The TC group demonstrated a significant increase in daily steps from baseline to 12 months (by 2371±3133 steps/day; p=0.014), whereas no change was shown in the UC group (98±2448 steps/day; p=0.926) over 12 months (figure 1A). Similarly, movement intensity significantly increased from baseline to 12 months in the TC group (by 168±193 VMU; p=0.023), but not the UC group (-11±137 VMU; p=0.849) (figure 1B). For SF-36 physical component scores, only the TC group showed a significant and clinically important improvement (by 10±11 points; p=0.016) from baseline to 12 months, compared to no change in the UC group (2±17 points; p=0.757). There were no changes in SF-36 mental component scores in either group.

Conclusion Implementing a behavioural PA TC intervention following hospital discharge from LTx led to sustained improvements in daily PA levels and physical aspects of HRQoL at 12 months. Therefore, behavioural PA TC constitutes a promising intervention to optimise long-term recovery and health outcomes in LTx recipients.

NICE guideline NG115 for COPD recommend Airways Clearance Techniques (ACTs) for people with excessive sputum but there have been no studies comparing different ACTs.

Aim To compare Oscillatory Positive Expiratory Pressure (OPEP, Aerobika™) vs Active Cycle of Breathing Technique (ACBT) following exacerbations of COPD.

Method A pilot, feasibility randomised controlled trial (ClinicalTrials.gov Identifier: NCT05548036)

Patient With confirmed COPD (GOLD 2023) and chronic bronchitis symptoms, who had not received ACTs previously. They were recruited in hospital or through community COPD nurses during (or within 4 days) of starting a moderate-severe exacerbation. Randomisation via sealed envelope determined whether they received 30–60 minutes of training on OPEP or ACBT by respiratory physiotherapists, face-to-face. All participants received antibiotics, steroids, nebulisers and oxygen in the acute phase according to clinical discretion. All were already prescribed optimal inhaled treatments. Participants receiving OPEP showed significantly more sputum clearing than those receiving ACBT at 12 hours (p=0.008). There were no adverse events noted in either group. Overall, these results suggest that OPEP may be a promising intervention to improve sputum clearance in COPD exacerbations.

Abstract S55 Figure 1  A) Daily steps and B) Movement intensity in LTx recipients assigned to the tele-coaching (TC) and usual care (UC) groups at the baseline (hospital discharge), 3 and 12 months. Data are mean±SEM.* Denotes significant within-group difference compared to baseline(P<0.05)