Introduction & Objectives Few self-management interventions for COPD have conducted qualitative interviews on completion of such a programme and none have followed participant's longer term. This study conducted interviews with participants allocated to the SPACE FOR COPD self-management programme as part of an RCT. We aimed to gain insight into how the programme was utilised over a 6 month period. Earlier analysis of interviews carried out at 6 weeks highlighted the value of the education material[1].

Method Semi-structured interviews were carried out with participants (n = 24) receiving SPACE for COPD six months after receiving the intervention. Interviews were transcribed verbatim and a constant comparison approach was taken to analysis supported by NVivo software (Version 10) by 2 researchers with experience in qualitative methods.

Results Following preliminary analysis, four main themes describe the challenges and conducive behaviours that influenced participant's self-management behaviours during 6 months of using SPACE FOR COPD - *continuing to utilise the manual, establishing an exercise routine, social support & multiple burdens*. Many participants describe continuing to use the SPACE FOR COPD manual (e.g. for breathing control techniques and to refresh memory) and establishing an exercise routine early on with the intervention. Social support was utilised for informational (advice), instrumental (help with tasks) and emotional reasons and largely consisted of family members. Challenges to continued regular exercise at home included barriers of time and weather and wider ranging burdens (e.g. other family member's ill-health, life events, such as moving house).

Conclusion Participants reported continued use of the manual and acknowledged thatestablishing a regular exercise routine was instrumental to encouraging continued exercise and this behaviour may have increased feelings of personal control over their disease.However, the challenges identified could disrupt these patterns of self management and further healthcare professional support may be required to help participants cope with these. Participants viewed the telephone support they had had favourably.

REFERENCES

1. L Apps, S Harrison, J Williams, M Steiner, M Morgan & S Singh. (2012). A self-management programme of activity, coping & education (SPACE) for COPD: Patients perspective. ERS Annual Conference 2012

P45 INVESTIGATING THE FEASIBILITY OF AN ON-LINE HEALTH RESOURCE INTEGRATED WITH NURSE COACH SUPPORT FOR THOSE WITH ADVANCED COPD

J Young, F Early, K Homan, J Fuld, S Wisbauer; *Addenbrookes Hospital, Cambridge, United Kingdom*

10.1136/thoraxjnl-2013-204457.195

Background Self-management may improve health status in chronic disease. It is not routinely embedded into COPD care. Pulmonary rehabilitation provides behaviour change opportunities but is not available to all.

Aims To test the feasibility of a combined intervention (online health resource 'The Prevention Plan' (TPP) with nurse coach support) with a key aim to identify impact on activation for self-management. Secondary outcomes of interest were health-related quality of life, emotional functioning, information needs and exercise capacity.

Method 17 patients were recruited (FEV1 < 75% predicted (range 15–74, mean 38.01, SD 17.92). Hardware and internet access were provided. Patients had unlimited access to TPP, home visits, telephone contacts and email with the nurse coach. The nurse coach supported behaviour change through patient-led goal setting and techniques to enhance self-efficacy. Outcomes were followed up at 9–29 weeks (mean = 15) after joining the programme. Measures were patient activation (PAM), health-related quality of life (CRQ), anxiety and depression (HADS), information needs (LINQ) and GAIT test.

Semi-structured interviews were conducted. Qualitative analysis is underway and results will be reported separately.

Results Mean age was 61.4 years (range 46 to 79), 9 female, 8 male. 14 patients completed follow-up assessments. 1 patient withdrew due to illness and two were unable to complete follow-up.

Statistically significant improvement was found for activation ($p = 0.0035$, $t = 3.56$, $df = 13$), CRQ-fatigue ($p = 0.0427$, $t = 2.25$, $df = 13$), anxiety ($p = 0.0444$, $t = 2.22$, $df = 13$), information needs ($p = 0.0001$, $t = 6.09$, $df = 13$).

Conclusion The intervention supported patients to become more activated for self-management. Patients showed increased confidence to manage their condition and strengthening of belief that taking an active role in managing their COPD was important. Secondary benefits related to fatigue, anxiety and feeling more informed about COPD. Qualitative analysis will illuminate these findings and explore intervention factors that led to greatest benefit.

P46 SUPPORTED SELF-MANAGEMENT FOR PATIENTS WITH MODERATE TO SEVERE COPD AT OR SHORTLY AFTER DISCHARGE FROM HOSPITAL: A SYSTEMATIC REVIEW OF THE EVIDENCE

[1]RE Jordan, [1]S Majothi, [1]NR Heneghan, [1]A Turner, [1]D Moore, [1]D O'Brien, [1]S Jowett, [2]S Singh, [1]P Adab, [1]D Fitzmaurice, [1]S Bayliss, [1]R Riley, [1]M Price, [1]J Ayres, [1]CB Jolly; *[1]University of Birmingham, Birmingham, UK; [2]University Hospitals Leicester NHS Trust, Leicester, UK*

10.1136/thoraxjnl-2013-204457.196

Introduction and objectives Guidelines recommend that COPD patients admitted to hospital with an exacerbation should be assessed and considered for supported self-management interventions although it is not known how effective or cost-effective such an intervention would be when instigated during admission or shortly after discharge. We conducted a systematic review and evidence synthesis to answer this question.

Methods Key databases eg MEDLINE, EMBASE, CENTRAL, were searched up to May 2012 for studies of any design where patients admitted with an acute exacerbation of COPD were included in a supported self-management intervention (or important components) within 6 weeks of discharge. Citation lists were checked and authors of relevant conference abstracts since 2010 were contacted. There were no language restrictions. Data were extracted and risk of bias assessed independently by 2 reviewers.

Results Of over 16000 initial search hits, 14 papers have been provisionally included which report 8 randomised controlled trials (RCTs), 1 controlled clinical trial and 4 pre-post studies/arms. Study quality was variable and interventions heterogeneous. Of the RCTs, 4 described multi-component self-management packages, 1 was a cluster RCT providing support to both nursing home staff and patients, 1 was a home-based exercise trial and 2

were integrated care/case management packages with significant self-management components. RCT follow-up ranged from 3–12 months with a total of 1113 (range 33–464) patients enrolled. Results from n = 4 RCTs indicate a reduction in re-admissions of borderline significance (OR 0.65 (95% CI 0.42, 1.00)) but no significant effect on mortality (OR 1.22 (95% CI 0.79, 1.86)). Effect on overall quality of life was heterogeneous with large loss-to-follow-up. There were no cost-effectiveness studies.

Conclusions There is a paucity of good quality large RCTs of supported self-management delivered at discharge. Interventions are disparate and few studies report significant benefits in important outcomes. However, effect sizes for reduction in admissions are consistent with published evidence of self-management interventions delivered whilst patients are stable.

P47 PATIENT CHARACTERISTICS OF THOSE REFERRED AND NOT REFERRED FOR EARLY POST-HOSPITALISATION PULMONARY REHABILITATION

[1]SE Jones, [1]SSC Kon, [2]SA Green, [2]D Bell, [1]JL Canavan, [1]CM Nolan, [3]AL Clark, [4]M Dickson, [4]A-M Nolan, [1]S Fleming, [4]M Haselden, [1]WD-C Man; *[1]Respiratory NIHR Biomedical Research Unit, Royal Brompton & Harefield NHS Foundation Trust and Imperial College, Harefield, Middlesex, United Kingdom; [2]NIHR CLAHRC for Northwest London, London, UK; [3]Harefield Pulmonary Rehabilitation Unit, Royal Brompton and Harefield NHS Foundation Trust, Harefield, Middlesex, United Kingdon; [4]The Hillingdon Hospital NHS Foundation Trust, Uxbridge, UK*

10.1136/thoraxjnl-2013-204457.197

Background Early post-hospitalisation pulmonary rehabilitation (PR) following acute exacerbation of COPD (AECOPD) has been shown to improve health-related quality of life (HRQOL), increase exercise capacity and reduce rate of hospital readmission. However, only a minority of eligible patients are referred for (or receive) this intervention. The aim of this study was to determine differences in baseline characteristics between those referred or not referred for early post-hospitalisation PR. We hypothesised that those with poorer lung function, worse functional capacity, increased muscle weakness and cachexia would be less likely to be referred for early post-hospitalisation PR.

Methods Two hundred and twenty six patients hospitalised for AECOPD were consecutively recruited on day of hospital discharge. All fulfilled the eligibility criteria for PR, which included the ability to walk 5 metres independently. The following measurements were performed on day of hospital discharge by the research team: spirometry, anthropometry (body mass index: BMI and fat free mass index (FFMI)), lower limb muscle strength (Quadriceps Maximum Voluntary Contraction: QMVC), functional capacity (4-metre gait speed (4MGS)), HRQOL (COPD Assessment Test (CAT)) and Hospital Anxiety and Depression scale (HAD)). Length of stay (LOS), previous admissions to hospital in past year, social deprivation scores (based on postcode) and smoking history were also recorded. The decision to refer was made by the clinical team, blinded to results of outcome measurements.

Results The results are seen in Table 1. Seventy three patients (32%) were referred for early post-hospitalisation PR. Contrary to our hypothesis, there was no difference in spirometry, muscle strength, functional capacity or muscle mass between patients that were referred or not referred for early post-hospitalisation PR. There were also no differences in HRQOL, anxiety or depression scores, smoking status, social deprivation score or number of hospitalisations in past year. The only significant difference was a slightly reduced length of hospital stay for those referred to PR

Conclusion Reasons for non-referral for post-hospitalisation PR cannot be simply explained by physiological characteristics at hospital discharge, and are likely to be secondary to complex interactions between patient and healthcare professionals. Further qualitative work is required to understand these interactions and relationships.

Abstract P47 Table 1. Baseline Characteristics

	Referred to PR (n = 73)	Not referred to PR (n = 153)	p value
Age (years)	71 (64, 79)	74 (66, 82)	p = 0.10
MRC Dyspnoea score	4 (3, 5)	5 (3, 5)	p = 0.39
BMI (kg/m^2)	25.8 (21.8, 31.5)	25.5 (22.0, 29.4)	p = 0.45
FEV$_1$(% predicted)	35.0 (24.8, 49.5)	34.0 (26.0, 48.3)	p = 0.73
QMVC(% predicted)	40.3 (27.2, 52.8)	41.5 (28.6, 58.4)	p = 0.44
FFMI (kg/m^2)	15.3 (13.3, 17.4)	15.5 (14.0, 17.5)	p = 0.52
4MGS (metres/second)	0.64 (0.24)	0.57 (0.28)	p = 0.09
CAT	25 (7)	24 (8)	p = 0.47
HAD A	7 (4 , 11)	7 (4, 10)	p = 0.94
HAD D	6 (3, 9)	6 (4, 9)	p = 0.53
Length Of Stay (days)	2 (1, 4)	3 (2, 6)	**p < 0.01**
Smoking Pack Year History	45 (27, 59)	36 (20, 55)	p = 0.08
Current smoking status (current:former)	25:48	57:96	p = 0.77
Hospitalised in past year (%)	34	38	p = 0.66
Social Deprivation IMD	20.99 (12.60, 28.03)	20.22 (12.17, 27.38)	p = 0.89

Data expressed as mean (SD) and median (25th, 75th percentile).
MRC, Medical Research Council dyspnoea score; BMI, body mass index; FEV$_1$, forced expiratory volume in 1 second; QMVC, quadriceps maximum voluntary contraction; FFMI, fat free mass index; 4MGS, 4-metre gait speed; CAT, COPD assessment tool; HAD, Hospital Anxiety and Depression.

P48 AN EVALUATION TO UNDERSTAND THE USE OF TECHNOLOGY WITHIN A COPD POPULATION

[1]M Gibb, [1]V Willott, [1]S Lohar, [1]S Ward, [2]C Bolton, [3]P McAlinden, [4]A De-Soyza, [5]S Singh; *[1]University Hospital of Leicester, Leicester, United Kingdom; [2]University of Nottingham, Nottingham, United Kingdom; [3]Sir William Leech Centre for Lung Research Freeman Hospital, Newcastle Upon Tyne, United Kingdom; [4]Institute of Cellular medicine, Newcastle University and COPD Service Freeman Hospital Newcastle, Newcastle Upon Tyne, United Kindom; [5]Faculty of Health and Life Sciences Coventry University, Coventry, United Kingdom*

10.1136/thoraxjnl-2013-204457.198

Introduction and Objectives There is a desire to employ technology to support patients with long term conditions. However there is little data available that describes familiarity with technology in the COPD population. We have an interest in developing alternative forms of pulmonary rehabilitation deploying technology. Therefore the aim of this evaluation was to understand the use of technology in this population.

Methods Patients attending a consultant led COPD follow up clinic were asked to fill out a 10 itemed survey regarding their physical activity levels, if they had an interest in pulmonary rehabilitation and technological devices they may use.

Results 191 patients returned the surveys, 168 from the Glenfield Hospital Leicester and 23 from the Newcastle upon Tyne Hospitals. The population surveyed consisted of 76 males, 81 females and 34 who did not specify their gender. The age range