Conclusions Findings show that greatest improvements in terms of exercise capacity may be seen from 8 week pulmonary rehabilitation programmes, but that improvement for the ISWT can be obtained from 6, 7 or 8 week programmes.

REFERENCES

National Institute for Clinical Excellence. Commissioning a pulmonary rehabilitation service for patients with COPD. 2010. [http://www.nice.org.uk/usingguidance/commissioningguides/pulmonaryrehabilitationforpatientswithcopd/commissioning.jsp] Accessed 13/07/13

P117 PULMONARY REHABILITATION IN THE EAST OF ENGLAND – 2.5-FOLD VARIATION IN COMPLETION RATES

¹L Jongepier, ²R Barlow. ¹EoE Respiratory Strategic Clinical Network, Cambridge, UK; ²PROVIDE, Chelmsford, UK

10.1136/thoraxjnl-2014-206260.258

Introduction and objectives Pulmonary Rehabilitation (PR) should be made available to all suitable people with COPD and various other chronic respiratory conditions.¹ An abundance of guidelines has been produced making recommendation on the quality of both the provision and commissioning of PR. Limited data is available on PR programme adherence rates and most study rates post COPD exacerbation. Recent IMPRESS Guidance suggested a target completion rate of 75% of offered sessions and stated the national average being less than 50%.² Our aim was to get an accurate regional perspective of completion rates of all PR service providers to use as a lever for improvement.

Methods Prior to 2013/14 a regional PR group was formed to promote best practice, offer peer support and enable improvements through the collection of meaningful regional data. A data set was agreed and defined and during 2013/14 quarterly data was collected from 17/18 (95%) providers across all CCGs. The number of PR starters and completers (attending a minimum of 75% of the offered sessions) was collected. Data from all providers was compared.

Results During 2013/14 4,737 patients started PR and 2935 patients attended at least 75% of the offered sessions. The average completion rate across the EoE was 62% with programmes varying more than 2.5-fold from 37% to 91%. 24% of providers had a completion rate of $\leq 50\%$, however another 24% had a completion rate of $\geq 75\%$.

Conclusions Completion rate varied widely with a 2.5-fold variation between the best and worst performers. 24% had a completion rate of $\leq 50\%$. The regional average of 62% was below the suggested target rate of 75%. The reasons for this variation are not known, but will be investigated by the EoE PR group.

Abstract P117 Figure 1

REFERENCES

- NICE. COPD: management of COPD in adults in primary and secondary care. 2010 [http://www.nice.org.uk/guidance/CG101]
- Impress (BTS and the primary care respiratory society – UK). Impress Guide to Pulmonary Rehabilitation. 2011. [www.impressresp.com/index.php?option=com_docam&task=doc_view&grid=41&Itemid=82] Accessed on 07/07/13

P118 QUANTITY AND QUALITY OF REFERRALS TO PULMONARY REHABILITATION FROM PRIMARY CARE FOLLOWING INCLUSION IN THE QUALITY AND OUTCOMES FRAMEWORK (QOF) IN WALES

¹J Ayling-Smith, ²M Owen, ¹J Byers, ¹D Menzies. ¹Glan Clwyd Hospital, Betsi Cadwaladr Health Board, UK; ²Wrexham Maelor Hospital, Betsi Cadwaladr Health Board, UK

10.1136/thoraxjnl-2014-206260.259

Introduction Referring suitable patients for Pulmonary Rehabilitation (PR) has formed part of the Quality and Outcomes Framework (QOF) reward for General Practitioners (GPs) in Wales since April 2013. Patients with Chronic Obstructive Pulmonary Disease (COPD) that have a Medical Research Council (MRC) dyspnoea score of 3 or above, or those with an MRC score of 2 and recently discharged from hospital for COPD are eligible. We sought to determine the impact of this change on the referral pattern to our PR programme, which traditionally had only accepted referrals from secondary care respiratory consultants.

Methods A standardised form was prospectively designed and distributed to enable primary care providers to refer suitable patients to the PR programme. Data on patient demographics, respiratory diagnosis, co-morbid conditions, MRC dyspnoea score, exacerbation frequency and current medication were collected. Referring GPs were also asked to provide recent spirometry values for patients that were referred. An assessment was made based on the information provided as to whether the patient could be listed immediately for pulmonary rehabilitation, whether further assessment was required, or whether the referral was inappropriate.

Results A sample of 250 GP referral forms out of a total of 545 were evaluated of which 51% of patients were male and the mean age was 69 years (range 31–90). 40.8% of GP referrals could be listed immediately for PR, 34.8% of referrals needed further assessment and 24.4% were inappropriate. 22.4% of all patients referred did not have COPD based on the spirometry results supplied. Compared with the baseline referral rate to PR from secondary care consultants, the rate of referral from GPs

Abstract P118 Figure 1 Referrals to pulmonary rehabilitation before and after QoF

showed a sharp increase, particularly toward the end of the financial year (difference in slope -0.77 (95% CI -2.16 to 0.61) versus 9.53 (6.03 to 13.03), $p < 0.0001$) [Figure]. 36.8% of patients were found to be on off-label inhaled therapy for COPD.

Conclusion The number of referrals to PR increased significantly following inclusion in QOF. The majority of the referrals from GPs either require further evaluation or are inappropriate. The spirometry data suggests there is a high misdiagnosis rate of COPD in primary care.

P119 IS A PRACTICE INCREMENTAL SHUTTLE WALK TEST NEEDED FOR PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE ADMITTED TO HOSPITAL FOR AN ACUTE EXACERBATION?

¹V Johnson-Warrington, ²K Mitchell, ²S Singh. ¹University Hospitals Coventry and Warwickshire, Coventry, UK; ²Centre for Exercise and Rehabilitation Science, University Hospitals of Leicester NHS Trust, Leicester, UK

10.1136/thoraxjnl-2014-206260.260

Introduction The Incremental Shuttle Walk Test (ISWT) assesses exercise capacity in patients with Chronic Obstructive Pulmonary Disease (COPD). Guidelines suggest 2 ISWTs should be performed. However, in patients who have been admitted with an acute exacerbation, it is unknown if 2 ISWTs are required.

Objective To investigate if a practice ISWT is needed for inpatients with an acute exacerbation of COPD.

Methods Patients admitted to hospital with an acute exacerbation completed 2 ISWTs, prior to discharge. Patients gave written informed consent (ISRCTN84599369) and were included if they used the same oxygen and mobility aid (if any) between tests.

Results 37 inpatients with COPD (19 male) were included: mean (SD) 67.89(8.02) years with BMI 24.66(6.60), FEV₁ was 1.07(0.44)[41.94(13.72)% predicted], FEV₁/FVC 47.11(11.70)%, median (inter-quartile range) MRC dyspnoea grade 4 (3–5), resting Borg breathlessness 2(0.5–3) and 11 had never exercised.

Participants achieved ISWT1 92.16(97.67)m, post-HR 108.64(14.33), post-SaO₂ 90.33(3.89), post-Borg breathlessness 4(3–5) and post-Rated Perceived Exertion (RPE) 13(13–15). There was a statistically significant increase of 14.59(29.12)m for ISWT2 ($p < 0.05$) but no significant differences in HR, SaO₂, Borg or RPE. Bland Altman plot (Figure 1a) shows acceptable agreement between the ISWTs.

When calculating Endurance Shuttle Walk Test (ESWT) level at 85% VO₂ peak as estimated from ISWT1 and ISWT2, there was a significant increase of one level ($p < 0.05$).

Multiple regression explained 92.1% of the variance ($F_{(9,18)}p < 0.001$, R^2 0.921) of the difference between ISWTs using FEV₁%predicted, FEV₁/FVC%, BMI, exercise history, resting SaO₂, ISWT1 distance, ISWT1 post-SaO₂, post-Borg and post-RPE ($p < 0.05$). Using the multiple regression equation to calculate predicted ISWT2, there was good agreement (Figure 1b) and no significance difference between this and actual ISWT2 (0.04 m, $p > 0.05$).

Conclusions There was a small but statistically significant increase between ISWTs, which was below the minimal clinically important difference. However, this difference changed the ESWT level for some patients which would have had consequences for exercise prescription.

Abstract P119 Figure 1a Bland Altman Plots showing agreement between ISWT1 and ISWT2 and 1b predicted ISWT2 and actual ISWT2

This exploratory work has shown that we can predict the difference between ISWTs using a multiple regression equation which could substitute the need for a second ISWT; this needs to be confirmed prospectively. A practice ISWT is therefore not necessarily needed in this patient group.

P120 SHARED DECISION MAKING IN A PULMONARY REHABILITATION SETTING FOR COPD PATIENTS

CL Madsen, J Tomkinson. Bristol Community Health, Bristol, UK

10.1136/thoraxjnl-2014-206260.261

Title: Evidence of Shared Decision Making in a COPD education and supported self-management group setting.

Authors: Jen Tomkinson, Advanced Respiratory Physiotherapist, Specialist Services (Long Term Conditions) Bristol Community Health CIC; Claire Madsen, Consultant Physiotherapist; Bristol Community Health CIC

Introduction and objectives Shared Decision Making (SDM) is a patient centred, research based approach which empowers patients to work in partnership with health professionals to manage their long term conditions. There is no published data of