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].

**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?**

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**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)(14.94(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)=9.21, p < 0.001, R2 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.