

Clinical delivery of pulmonary rehabilitation

P115 EVIDENCE OF POST-CODE LOTTERY IN THE AVAILABILITY OF PULMONARY REHABILITATION (PR) IN THE EAST OF ENGLAND (EOE)

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Introduction and objectives Pulmonary Rehabilitation (PR) should be made available to all suitable people with COPD and various other chronic respiratory conditions.¹ Recommendations have been made on the quality of the provision and commissioning of PR. Indicative benchmark rates have been developed² to support commissioners determine local need. We compared the local availability of PR across the EoE.

Methods A regional PR group was formed to promote best practice, offer peer support and enable improvements through the collection of meaningful regional data. Data was collected from 17/18 (94%) providers on the number of PR places commissioned per CCG(s). In 13 providers PR was commissioned. In 4 providers PR was provided under Payment by Result and in these maximum capacity was calculated using a 1:8 staff:patient ratio. Comparison was made between availability and indicative benchmark rates in each locality. Where providers covered more than one CCG, data was aggregated for analysis purposes.

Results In the EoE the average number of people expected to benefit from PR/year is 11,748 (192 per 100,000 population/year).³ However, our data showed a maximum of 6,165 PR places were available (101 per 100,000/year). Local provision varied 2.8-fold across the CCGs, ranging between 60 per 100,000/year and 171 per 100,000/year. This was not explained by local variation based on local need as actual provision/local target varied 3.1-fold [27.2%-85.4%].

Conclusions There was evidence of post-code lottery in the provision of PR with a 2.8-fold variation between localities. There was also an overall insufficient availability throughout the region (average 52.5% of the proposed target). Provision compared to local targets varied more than 3-fold. Provision was less than 50% of local target in 50% of localities. This data will be shared with local commissioners and providers, so that this deficiency can be addressed.

REFERENCES

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P116 DIFFERENCES IN PATIENT OUTCOMES BETWEEN A 6, 7 AND 8 WEEK PULMONARY REHABILITATION PROGRAMME

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Background NICE (2010) recommend that pulmonary rehabilitation programmes run between 6–12 weeks in duration. To date, there is no consensus in the research to the optimal duration of a programme.

Objectives To investigate changes in patient outcomes over time for 6, 7 and 8 week pulmonary rehabilitation programmes.

To investigate differences in patient outcomes between 6, 7 and 8 week pulmonary rehabilitation programmes in order to identify optimal duration.

Setting: Community based pulmonary rehabilitation programmes in the East of England.

Participants: In total 363 participants completed one of the three pulmonary rehabilitation programmes. Patients with a chronic respiratory condition showing a commitment to the pulmonary rehabilitation programme and had no contraindications to exercise were included.

Intervention: Pulmonary rehabilitation twice a week for 6, 7 or 8 weeks.

Main outcome measures: St Georges Respiratory Questionnaire (SGRQ), Clinical COPD Questionnaire (CCQ), Hospital Anxiety and Depression Score (HADS) and Incremental Shuttle Walk Test (ISWT).

Results The t-tests indicated a statistically significant improvement in patients' exercise capacity (measured by the ISWT) for all 3 programmes ($p < 0.001$). Patients attending the 8 week programme improved the most (increasing by 74.43 metres), followed by the 6 then 7 week programme (increasing by 57.24 and 48.96 metres respectively). The minimal clinically significant change for the ISWT is 47.5 metres so all the programmes improved by a clinically significant amount. When controlling for baseline ISWT scores the 8 week programme showed statistically significant improvements on post-rehabilitation ISWT scores above the 6 or 7 week programmes ($F_{(2,341)} = 6.72, p = 0.001$).

Abstract P116 Table 1 Means (SDs) and T-tests for all measures pre and post intervention for each programme

Measure	6 week pulmonary rehabilitation			7 week pulmonary rehabilitation			8 week pulmonary rehabilitation		
	Mean (SD)		t (df)	Mean (SD)		t (df)	Mean (SD)		t (df)
	Pre	Post		Pre	Post		Pre	Post	
SGRQ	55.44 (17.48)	54.27 (16.93)	1.17 (129)	50.96 (17.96)	49.93 (17.55)	0.80 (76)	54.54 (17.20)	53.24 (17.25)	1.36 (124)
ISWT	110.13 (79.47)	168.37 (86.39)	-14.20 (131)***	173.25 (107.29)	222.21 (114.09)	-7.45 (76)***	167.43 (123.90)	241.86 (134.46)	-15.12 (135)***
CCQ	2.87 (1.36)	2.75 (1.20)	1.27 (135)	2.69 (1.15)	2.60 (1.20)	1.18 (75)	2.94 (1.23)	2.66 (1.21)	3.39 (138)**
HADS Anxiety	6.17 (4.23)	6.13 (4.11)	0.14 (135)	5.78 (4.03)	5.60 (4.22)	0.63 (76)	5.70 (3.91)	5.76 (3.82)	-0.29 (138)
HADS Depression	7.04 (3.75)	6.62 (3.67)	1.75 (135)	6.72 (3.38)	6.86 (3.81)	-0.54 (75)	7.32 (3.77)	7.07 (3.31)	1.04 (138)