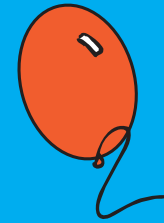


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PULMONARY
REHABILITATION SURVEY

1. INTRODUCTION

In October 2002 the British Lung Foundation (BLF) and the British Thoracic Society (BTS) surveyed respiratory consultants in the UK to ask if they provided a pulmonary rehabilitation programme for their patients.

The purpose of this was to produce a comprehensive list of the current provision of services and to establish how widespread these services were. Once provision had been mapped the two organisations wanted to help promote and develop pulmonary rehabilitation services by:

- 1 Helping centres set up programmes where the facility is not available.
- 2 Using the information gathered for patients and Breathe Easy supporters to attend their local programme.
- 3 Assisting patients and Breathe Easy supporters in campaigning where a programme does not exist.
- 4 Facilitating the sharing of this information between health professionals to help them assist each other in developing rehabilitation programmes.

2. SUMMARY OF FINDINGS

- 160 hospitals / chest clinics provide some form of pulmonary rehabilitation
- 86 (57%) of these programmes receive secure funding
- 15 (10%) of these programmes receive no NHS funding
- Only 15% of programmes provide access to 100 patients and over per year
- One third of established programmes are unable to provide an adequate number of physical training sessions
- 55 (36%) of these programmes provide follow on care for patients once their pulmonary rehabilitation has been completed
- 67 (44%) of these programmes have a BLF Breathe Easy group either attached to the hospital or running within the immediate area for patients to attend

3. THE COST OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD)

COPD is a chronic disabling lung disease that causes 30,000 deaths per year in the UK and accounts for one fifth of respiratory mortality.⁽¹⁾ It is also estimated that 24 million working days are lost each year due to this disease, the overall cost to the nation is unknown⁽²⁾.

In an average UK health district serving 250,000

people, there will be 14,200 GP consultations every year for people with COPD. From these 680 patients will be admitted to hospital, accounting for 9,800 beds, more than five times the number of bed days due to asthma. An audit of hospital admissions in Merseyside showed that 12.5% of patients admitted as emergencies had COPD⁽³⁾.

Breathlessness is a serious problem for all people who have COPD and often results in a deterioration of health leading to inactivity, isolation, and dependence. Pulmonary rehabilitation however, has been found to significantly improve the physical function of the patient and can improve the quality of life⁽⁴⁾.

4. EFFECTIVENESS OF PULMONARY REHABILITATION

Clinical trials have shown that pulmonary rehabilitation can have a significant benefit on a patient's health and improve their quality of life. These benefits include exercise capacity, physical endurance, better emotional function, reduced breathlessness and improved self-esteem and independence⁽⁵⁾⁽⁶⁾.

The programmes, whilst individually tailored to each patient, take place in a group setting which allows patients to form friendships and share experiences with others. The programme not only offers physical training, but provides advice on lung health, social and psychological support.

Jenny Martin who recently attended her local pulmonary rehabilitation programme at Glenfield Hospital, Leicester is one of many patients who have benefited enormously from pulmonary rehabilitation. "When I first attended the programme I didn't think that it would help me at all. I was quite worried about being in a group, talking about my condition, and taking part in physical exercise. However, after the seven week programme had finished I felt like a new woman.

Taking part in pulmonary rehabilitation has made me feel much more confident about myself, and much more able to talk openly about my condition. Being with other people with a similar condition was of great benefit to me. At last I felt as though I wasn't alone, as we had all been through the same difficulties. My first week on the exercise walking machine was very difficult and I only managed one minute, however by the seventh week I was walking for over six minutes".

Not only does pulmonary rehabilitation benefit patients but it also has a significant impact on the NHS by reducing GP home visits and reducing days spent in hospital. The cost outlay in providing the service is easily offset by the reduction in health service utilisation. It is reasonable to conclude that pulmonary rehabilitation is cost effective and results in financial benefits to the health service⁽⁷⁾.

5. PULMONARY REHABILITATION SURVEY

5.1 Method

The survey was sent to all chest consultants in the 266 hospitals with departments of respiratory medicine. This figure excludes paediatric hospitals.

5.2 Findings

We received 207 responses from the survey, of which 160 hospitals / chest clinics responded positively to either running a pulmonary rehabilitation programme or having a pilot scheme in operation. However, 8 of the hospitals running pulmonary rehabilitation have not provided us with sufficient information for us to include them when calculating our findings. Therefore the figure we have used is 152 hospitals / centres.

See Appendix 1 for the detailed list of hospitals providing pulmonary rehabilitation.

5.3 Survey results

Pulmonary rehabilitation

Secure funding	No.	%
Secure Funding	86	57
Non secure funding	51	33
No funding	15	10

Of the hospitals providing pulmonary rehabilitation just over half of these (57%) have secure funding for their programmes. The remainder have either non secure funding or have no funding at all. Where no funding is forthcoming the service is often provided out of the good will of the hospital team.

Pulmonary rehabilitation

NHS funded	No.	%
NHS funding	121	88
Non NHS funding	16	22

121 (88%) of the programmes receive NHS funding. The remaining 22% of programmes are funded by non NHS means including private donations, trust funds, research grants, or charitable funds.

Pulmonary rehabilitation

Location	No.	%
Hospital based	121	80
Community based	14	9
Hospital & Community based	17	11

The majority of the pulmonary rehabilitation programmes (80%) are based in the hospital. Only 9% are based in the community.

Pulmonary rehabilitation

Follow on care provided	No.	%
Follow on care provided	55	36
Local Breathe Easy group	67	44

55 of the programmes provide their patients with some form of follow on care and/or physical training once the rehabilitation programme has finished.

Just under half of the hospitals running pulmonary rehabilitation have a BLF Breathe Easy group attached to them or in the immediate area. These groups also provide support and information to patients once their rehabilitation programme has finished.

Pulmonary rehabilitation

Sessions per week	No.	%
No data given	4	3
1 day	50	33
2 days	88	58
3 & more days	10	6

The majority of pulmonary rehabilitation programmes have either one or two sessions per week.

Pulmonary rehabilitation

Duration of programme	No.	%
No data given	4	3
Less than 6 weeks	1	1
6 weeks	53	35
7 weeks	10	7
8 weeks	69	45
More than 8 weeks	15	9

The duration for most of the pulmonary rehabilitation programmes is between six and eight weeks. Only one programme runs for less than six weeks and only 15 (9%) run for more than eight weeks.

Pulmonary rehabilitation

No. of patients attending	No.	%
Less than 50 patients per year	64	42
More than 50 patients per year	65	43
More than 100 patients per year	16	10
More than 150 patients per year	4	3
More than 200 patients per year	3	2

The figures above show us that only 15% of the pulmonary rehabilitation programmes running provide access for 100 patients and over. 64 programmes (42%) cater for less than 50 patients per year, whilst 65 (43%) cater for more than 50 patients per year.

6. KEY POINTS

The results from the survey provide a very interesting picture of the number of pulmonary rehabilitation programmes running throughout the UK and the type of service that these provide.

- 160 hospitals provide some form of pulmonary rehabilitation for their patients. This is 60% of all hospitals. At first glance this figure seems very encouraging and reflects the rapid growth and popularity in pulmonary rehabilitation over the past 10 years. Also, many consultants that received the survey who were not providing programmes wished to do so. It was only a lack of funding that was stopping them.

- However, when examining the findings in more detail there are many alarming issues raised by the survey. The findings highlight that only 57% of the programmes running have secure funding. This is particularly worrying as it may affect patients wishing to access the programmes and have consequences for the recruitment and retention of staff to run the programmes.
- Even more alarming is that 10% of the pulmonary rehabilitation programmes running have no official funding and are run by the goodwill of the hospital staff, who provide pulmonary rehabilitation out of their existing workload and budget.

This commitment should be duly recognised however we should question whether the service would be improved if the programme received full and secure funding. We believe the answer is yes. Not only would the health professionals benefit from knowing they had secure funding, but this would also increase patient's access to programmes.

- Furthermore, the survey reveals that 85% of the pulmonary rehabilitation programmes only have capacity for up to 100 patients per year. Of these 42% provide access for fewer than 50 patients per year, and 43% provide access for more than 50 patients per year. This is a very striking statistic and one that needs to be urgently addressed if patients are to benefit from pulmonary rehabilitation.
- The important issue is not only the provision of pulmonary rehabilitation, but patient access to these programmes. From the survey's findings we estimate that approximately 10,000 patients per year have access to a local pulmonary rehabilitation programme. When we compared this number to the 600,000 patients diagnosed with COPD in the UK⁽⁸⁾ it tells us that only 1.7% of the total patients diagnosed with COPD have access to pulmonary rehabilitation each year. Even more disturbingly, we believe the figure of 600,000 to be well short of the real number of people who have COPD.
- Another significant issue is that 33% of the pulmonary rehabilitation programmes only provide one physical training session per week for their patients. This falls short of the BTS statement on pulmonary rehabilitation which recommends a minimum of two supervised sessions per week. Therefore many of the programmes currently running are not of an adequate standard or intensity for full benefit.
- Finally, only 36% of programmes provide some type of continuing care. We know that patients who attend an initial pulmonary rehabilitation programme benefit from improvements in health

and quality of life which can lead to a reduction of hospital visits. The research done so far is less clear on the benefits of follow on care (including physical exercise). More research is needed to establish the true outcome of follow on care.

- What is important for patients, once they have completed their programme, is to continue with their 'life style' change that rehabilitation promotes (and the psychological benefits that go with this, including improved self esteem and independence). Here, the BLF Breathe Easy groups play an important role in providing this type of service through support and advice.

Encouragingly, the survey reveals that 44% of pulmonary rehabilitation programmes have a BLF Breathe Easy group either attached to the hospital or running within the immediate area for patients to attend. Furthermore, the British Lung Foundation intends to increase this number significantly over the next few years. There are currently just over 100 groups throughout the UK and this is intended to more than double over the next three years – with the aim of having a Breathe Easy group attached to every chest clinic in the UK.

7. RECOMMENDATIONS

The British Lung Foundation and the British Thoracic Society recommend that:

- All funding for pulmonary rehabilitation should be made secure through commitments from Health Authorities or Primary Care Trust's and/or hospitals to provide them
- All respiratory departments that do not provide pulmonary rehabilitation should receive funding to do so from their Health Authority or Primary Care Trust
- Programme capacity should be increased to enable all patients with COPD that would benefit from pulmonary rehabilitation to attend a programme
- Programmes should provide two or more physical training sessions per week
- Further research is required to look into the benefits of follow on care / programmes for patients who have completed their pulmonary rehabilitation
- Patients should be encouraged to join their local BLF Breathe Easy group once they have completed their pulmonary rehabilitation programme for support and advice
- The British Thoracic Society will develop a 'How to set up a pulmonary rehabilitation service' toolkit and those colleagues who have expressed willingness to be consulted about how their service is provided will be contactable via the BTS website.

REFERENCES & SOURCE

- (1) The Burden of Lung Disease – A Statistical Report from the British Thoracic Society, pp.11
- (2) Morgan M. & Singh S. (1997) Practical Pulmonary Rehabilitation, London: Chapman & Hall, pp. 1-18
- (3) Calverley P (2000) COPD – Lung Report II, Lung Disease: A Shadow over the Nation's Health, British Lung Foundation, pp 8-10
- (4) British Thoracic Society – Statement on Pulmonary Rehabilitation. Thorax 2001; 56: 827-834
- (5) Sridhar MK, Editorials Pulmonary Rehabilitation, Improves quality of life in chronic lung disease, but evaluation must continue, BMJ 1997;314,1361(10 May)
- (6) Lacasse Y, Brosseau L, Milne S et al. Pulmonary Rehabilitation for COPD. Cochrane Review. In : The Cochrane Library, Issue 3, 2002, Oxford
- (7) Griffiths T.L., Phillips C.J., Davies S, Burr M.L., Campbell I.A. (2001) Thorax, October 2001, Vol 56, No 10, BMJ Publishing Group, pp 779-784
- (8) Calverley P & Bellamy, The challenge of providing better care for patients with chronic obstructive pulmonary disease: the poor relation of airways obstruction, Thorax 2000, 55: 78-82



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APPENDIX 1 - HOSPITALS IN THE UK PROVIDING PULMONARY REHABILITATION

Name of hospital	Location
Aberdeen Royal Infirmary	Aberdeen
Addenbrookes	Cambridge
Altnagelvin	Londonderry
Ashford	Middlesex
Barnet	Barnet
Basildon	Essex
Barnsley District General	Barnsley
Battle	Reading
Belfast City	Belfast
Benenden	Kent
Birmingham Heartlands	Birmingham
Bishop Auckland General	Bishop Auckland
Blackpool	Blackpool
Bradford Royal Infirmary	Bradford
Brighton General	Brighton
Bristol Royal	Bristol
Bromley	Bromley
Broomfield	Chelmsford
Cardiothoracic Centre	Liverpool
Charing Cross	London
Chippenham Community	Wiltshire
Churchill	Oxford
Colchester General	Colchester
Countess of Chester	Chester
County	Lincoln
Cumberland Infirmary	Carlisle
Derby Chest Clinic	Derby
Derriford	Plymouth
Doncaster Royal Infirmary	Doncaster
Dumfries Royal Infirmary	Dumfries
Ealing	Middlesex
Eastbourne District General	Eastbourne
Edinburgh Royal Infirmary	Edinburgh
Falkirk & District Royal Infirmary	Falkirk
Freeman	Newcastle Upon Tyne
Frenchay	Bristol
Friarage	Northallerton
Gartnavel	Glasgow
George Eliot	Nuneaton
Glan – Clwyd	Rhyl
Glasgow Royal Infirmary	Glasgow
Glenfield	Leicester
Gloucestershire Royal Infirmary	Gloucester
Good Hope	Sutton Coldfield
Great Western	Swindon
Guys & St Thomas	London
Hairmyres	East Kilbride
Halton General	Runcorn
Harrogate	Harrogate
Hartlepool	Hartlepool

Hope	Salford	Royal Albert Edward Infirmary	Wigan
Horton General	Banbury	Royal Alexandra	Paisley
Huddersfield Royal Infirmary	Huddersfield	Royal Bournemouth	Bournemouth
Inverclyde Royal	Greenock	Royal Brompton	London
Ipswich	Ipswich	Royal Cornwall	Cornwall
Kettering	Kettering	Royal Devon & Exeter	Exeter
Kings College	London	Royal Free	London
King Edward VII	West Sussex	Royal Glamorgan	Cynnon
King Edward VII	Windsor	Royal Hallamshire	Sheffield
Kings Mill	Sutton in Ashfield	Royal London	London
Lagan Valley	Lisburn	Royal Oldham	Oldham
Leeds General	Leeds	Royal Surrey County	Guilford
Leighton	Crewe	Royal United	Bath
Lewisham	London	Royal Victoria Infirmary	Newcastle Upon Tyne
Lister	Stevenage	Salisbury District	Salisbury
Llandough	Vale of Glamorgan	Sandwell General	West Bromwich
London Chest	London	Scarborough	Scarborough
Luton & Dunstable	Luton	Scunthorpe General	Scunthorpe
Manchester Royal Infirmary	Manchester	Singleton	Swansea
Mater	Belfast	South Tyneside District	South Shields
Mayday	Croydon	Southampton General	Southampton
Medway District	Gillingham	Southend	Southend
Milton Keynes General	Milton Keynes	Southern General	Glasgow
Monklands	Airdrie	Southport District General	Southport
Nevill Hall	Abergavenny	St Georges	London
New Cross	Wolverhampton	St Helier	Sutton
Newham	London	St James University	Leeds
Ninewells	Dundee	St Johns	West Livingston
Norfolk & Norwich	Norwich	St Marys	Isle of Wight
North Hampshire	Hampshire	St Marys	Portsmouth
North Manchester General	Manchester	St Peters	Chertsey
North Tees General	Stockton on Tees	St Richards	Chichester
North Tyneside General	North Shields	Staffordshire General	Stafford
Northampton	Northampton	Stepping Hill	Stockport
Northern General	Sheffield	Stobhill	Glasgow
Nottingham City	Nottingham	Sunderland Royal	Sunderland
Oldchurch	Romford	Taunton & Somerset	Taunton
Ormskirk & District General	Ormskirk	Torbay	Torquay
Papworth	Cambridge	University Hospital Nottingham	Nottingham
Peterborough District	Peterborough	Victoria	Blackpool
Pilgrim	Boston	Victoria	Fife
Pontefract	Pontefract	Victoria Infirmary	Glasgow
Poole	Poole	Walsall	Walsall
Prince Charles Hospital	Merthyr Tydfil	Warrington	Warrington
Princes Royal	Telford	West Suffolk	Bury St Edmunds
Queen Elizabeth	Gateshead	West Wales General	Dyfed
Queen Elizabeth II	Welwyn Garden City	Whiston	Prescot
Queen Elizabeth the Queen Mother	Margate	Whittington	London
Queen Margaret	Dunfermlin	William Harvey	Ashford
Queen Marys	Kent	Woking Community	Woking
Queens	Burton on Trent	Worcester Royal	Worcester
Raigmore	Inverness	Wrexham Maelor	Wrexham
Ripon Community	Ripon	Wycombe	High Wycombe
Rossall	Fleetwood	Wythenshawe	Manchester
Rotherham District	Rotherham	Ysbyth Gwynedd	Gwynedd