

Appendix 1: Patient survey questionnaire

Pulmonary rehabilitation is an important treatment for people like you with lung disease. Pulmonary Rehabilitation helps reduce your breathlessness and allows you to do more. A programme consists of a package of exercise and a programme to help you best manage your disease. We would like to understand how we might best deliver the service to people like you. We would be grateful if you could take a minute to complete this brief questionnaire.

Please circle:

1. Male/Female

2. Age Group: - Under 40/40-50 /50-60 /60-70/70-80/over80

3. How old were you when you left school (college/university)?

4. Do you currently have a paid job? Yes/No

Occupation: _____

5. Does your breathing problem bother you? Yes/no

6. Does your breathing problem affect your ability to carry out paid work? Yes/no

7. Does your breathing problem affect your ability to carry out unpaid work, such as work around the house? Yes/no

8. Have you ever had to miss a day of paid/unpaid work because of your breathing problem? Yes/No

9. Are you able to keep up with people of a similar age to you when outwalking?

Yes/ No/ I don't go out walking

10. Does your breathing problem keep you from being as active as you would like? Yes /No

11. Does your breathing problem keep you from visiting with friends and family as often as you would like? Yes /No

Would you be interested in participating in a treatment that can make you less breathless and more active?

Yes/No

-If Yes...Please go to Question **12band12c.**

-If No...Please tick an option below.

Reason for not wanting to participate.

- | Satisfied with current breathing and activity levels.
- | No time to spend on treatment.
- | Concerned about the monetary cost of treatment
- | Currently using alternative treatment
- | Other (please provide a reason):

12b. If yes, how and where would you prefer to do this programme?

The package of pulmonary rehabilitation consists of a personalized exercise for you and a programme of education to help you best manage your disease.

Please tick all that apply		TICK
1	In a group supervised by a nurse/ physiotherapist at the Hospital. Where I can follow an exercise programme with the support of health care professionals /community health workers	
2	In a group supervised by a nurse/physiotherapist at your local hospital /community center. Where I can follow an exercise programme with the support of health care professionals/community health workers	
3	I would consider working through an exercise and education manual at home with support from a health professional/ community health workers, checking on me and being there to answer questions.	
4	I would consider using a web based programme with support from a Health care professional/ community health workers checking on me and being there to answer questions.	

12c. How much time would you be willing to spend participating in a treatment?

- Less than 30 minutes per day
- 30 minutes to 1 hour per day
- 1 to 2 hours per day
- More than 2 hours per day

13. Do you use any of the following?

- | | |
|------------------|---------|
| The Internet/web | Yes/ No |
| A computer | Yes /No |
| A smartphone | Yes /No |
| A tablet | Yes/No |

Thank you for taking the time to complete this questionnaire.

Appendix 2: Health care worker survey questionnaire

Pulmonary Rehabilitation is a highly evidence based intervention to support patients with respiratory disease. It significantly reduces breathlessness, anxiety, depression and improves quality of life and importantly exercise capacity.

We are trying to develop a pulmonary rehabilitation programme in your area and would be grateful if you could complete this questionnaire to help us understand your opinions of the process and practice of pulmonary rehabilitation.

YOUR ROLE

1. Which best describes your professional job category?

- | | |
|--|---|
| <input type="checkbox"/> Nurse | <input type="checkbox"/> Primary care doctor |
| <input type="checkbox"/> Community health worker | <input type="checkbox"/> Specialist respiratory nurse |
| <input type="checkbox"/> Family physician | <input type="checkbox"/> Physiotherapist |
| <input type="checkbox"/> Hospital doctor | <input type="checkbox"/> Other: |

2. What responsibilities do you have for the care of people with COPD? Tick all that apply.

- | | | |
|---|---|--|
| <input type="checkbox"/> Diagnosis | <input type="checkbox"/> Prescribing | <input type="checkbox"/> Inpatient treatment |
| <input type="checkbox"/> Non-urgent care | <input type="checkbox"/> Ongoing management | <input type="checkbox"/> Outpatient clinics |
| <input type="checkbox"/> Urgent assessments | <input type="checkbox"/> Admission prevention | <input type="checkbox"/> Primary care |
| <input type="checkbox"/> Oxygen therapy | <input type="checkbox"/> Medication checks | <input type="checkbox"/> Other |

If other, please give details

How many years' experience do you have of caring for people with respiratory problems?

Please enter a whole number.

THE PULMONARY REHABILITATION (PR) REFERRAL PROCESS

I feel sure that I understand the eligibility criteria for pulmonary rehabilitation.

	0	1	2	3	4	5	6	7	8	9	10	
Not at all	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Completely

I feel adequately prepared to refer patients to pulmonary rehabilitation.

	0	1	2	3	4	5	6	7	8	9	10	
Not at all	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Completely

What resources (eg. tools, systems or processes) are available in your practice to support clinicians in making pulmonary rehabilitation referrals? Tick all that apply.

- | | | |
|---|--|--|
| <input type="checkbox"/> Prompts in clinical system | <input type="checkbox"/> Information about PR for clinicians | <input type="checkbox"/> Clear referral criteria |
| <input type="checkbox"/> Electronic referral | <input type="checkbox"/> Skills training for communicating effectively with patients | <input type="checkbox"/> Other |

If other, please give details

3. Do you believe that PR is worthwhile in respiratory disease?

- Yes, very much
- Yes, a little
- No
- Not sure

4. What factors might influence your decision to refer a patient to pulmonary rehabilitation?

	No influence	Some influence	Strong influence
Increasing shortness of breath	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MRC Dyspnoea Scale ≥ 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mobility is affected by breathlessness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Decreasing activity levels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frequent exacerbations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Recent hospital discharge after exacerbation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patient is deconditioned	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Low exercise tolerance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patient anxiety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Poor self-management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Easy to use referral process	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If other, please give details

In your experience what are the main reasons that you would refer a patient to PR?

What factors might influence your decision not to refer an eligible patient to pulmonary rehabilitation?

	No influence	Some influence	Strong influence
I don't have enough information about PR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I'm uncertain that PR is worthwhile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patient has doubts that PR is worthwhile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patient refuses referral	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patient co-morbidities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Poor mobility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patient does not fit acceptance criteria for a programme	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patient has attended PR previously	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transportation problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Distance of class from patients home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lack of time to make referral	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Timing of classes not convenient for patient	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I'm unaware of how to refer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Difficult referral process	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If other, please give details

For each statement please select the answer that best suits your experience

	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
I can see the potential value of referring patients to PR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I believe that referring patients to PR is a legitimate part of my role	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I'm open to working with colleagues in new ways to enable PR referral to happen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I could easily integrate PR referral into my work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have confidence in the ability of colleagues who care for people with respiratory problems to refer patients to PR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Training should be provided in my practice so that staff know who to refer to PR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sufficient resources would be available to support PR referral in my practice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would like to receive reports in my practice about the outcomes for patients following a PR referral	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The staff in my practice/ colleagues agree that referring patients to PR is worthwhile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am confident I could overcome any difficulties I have with regard to referring patients to PR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

IMPROVING REFERRAL AND UPTAKE OF PULMONARY REHABILITATION (PR)

What would make it easy for you to refer patients to PR?

What could be done to encourage patients to take up PR?

Which communication methods are effective for you when communicating with PR providers?
Select all that apply.

- Email Letter Telephone Other

If other, please give details

Adapted with kind permission from Dr J Fuld, Addenbrookes Hospital, Cambridge, U.K.
Early, F., Wilson, P., Deaton, C., Wellwood, I., Dickerson, T., Ward, J., Jongepier, L., Barlow, R., Singh, S.J., Benson, J. and Brimicombe, J., 2019. Developing an intervention to increase REferral and uptake TO pulmonary REhabilitation in primary care in patients with chronic obstructive pulmonary disease (the RESTORE study): mixed methods study protocol. *BMJ open*, 9(1), p.e024806. Copyright © 2019, BMJ Publishing Group Ltd. All rights reserved. Creative Commons CC BY 4.0 (<https://creativecommons.org/licenses/by/4.0/legalcode>).