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## RESEARCH LETTERS

### Pulmonary rehabilitation at primary care – The results of a local survey



Dear Editor,

Pulmonary rehabilitation (PR) has proved a valuable<sup>1</sup> and cost effective<sup>2</sup> tool for the treatment of chronic respiratory diseases and its benefits have been increasingly recognized by the medical community. However, it is often underutilized for a multitude of reasons such as inaccessibility, limited local offer and poor knowledge of how to refer.<sup>3–5</sup>

To this end, strategies have been developed to extend PR to primary care (PC) as a way of reaching a larger number of patients who may benefit from this therapeutic approach<sup>6</sup>. In Portugal, this issue was recently addressed by National Health authorities and the extension of PR to PC is supposed to be ongoing until the end of 2017 (Despacho n.º 6300/2016, Diário da República, 2.ª série N.º 92 – 12 de maio de 2016).

However, before embarking on such a strategy, the authors believe that a more precise assessment of the current state of PR at PC is needed. With this in mind, taking advantage of the organizational model of our Local Health Unit which groups a General Hospital (in which we develop our hospital-based pulmonary rehabilitation program – PRP) and 14 PC units under the same shared administrative board, we conducted an anonymous survey among all PC specialists and residents to ascertain their knowledge about indications, benefits, available resources and hindrances to the referral of patients to PR.

From a population of 108 PC physicians, we obtained 52 answers (48.1%) to our enquiry (Table 1). Most (55.8%) clinicians had over 30 years of clinical practice and followed between 50 and 100 patients with chronic respiratory diseases, of which COPD was clearly the most prevalent (84.6%) and the one more frequently considered as candidate for PRP (98.1%). Some benefits of PR were recognized,

namely the improvement in exercise performance, quality of life and of degree of dyspnea. Most PC physicians (67.3%) were eager to actively participate in PR, despite the fact that more than a third of the physicians did not know that their local hospital had a PRP. Those who knew, sometimes thought about referring their patients, but only rarely actually did so. When asked why, they mentioned the lack of information regarding the means of referral and economic and transportation difficulties as the main hindrances. Risk concerns were exceedingly low (mentioned only by 7.7% of our respondents).

The majority (78.8%) had never received training in PR, but were open to having it in the future.

These results impart a few important messages. Number one, PRPs – namely hospital-based PRPs such as ours need to be better advertised within our local medical communities so as to be considered as a real therapeutic opportunity for patients that sometimes remain only in PC. Number two, a clear and unobstructed method of communication between hospital based PRP and PC should be created to remove the referral obstacles and also to allow a correct identification of patients who would be good candidates for the different settings of PR. Not all patients can be managed at PC based PR; this depends mainly upon precise risk stratification that perhaps needs to be further debated. Number three – training is the key! PC specialists and residents should be offered specific training in PR (which they are apparently keen to obtain) and this training should ideally take place before they are asked to take an active part in prescribing PR. This would probably help to facilitate communication, surpass referral barriers and correctly allocate patients to the different settings of PR.

Despite the fact that our results may only reflect a local perspective and that regional asymmetries may exist, we believe further investigation (perhaps a national survey) should be conducted to assure that PC physicians are fully prepared to take on the challenge demanded of them, that of receiving PR in their particular contexts by the end of 2017.

**Table 1** Pulmonary rehabilitation and primary care (n = 52).

	%
<i>Which components do you consider essential to PRP?</i>	
Exercise training	90.4
Educational program	96.2
Smoking cessation program	94.2
Respiratory physiotherapy	88.5
Nutritional evaluation	80.8
<i>Which healthcare professionals may be part of a PRP?</i>	
Pulmonologist	96.2
Physiatrist	92.3
Physiotherapist	92.3
Nurse	84.6
Nutritionist	78.8
Primary care clinician	67.3
Psychologist	59.6
Social worker	51.9
<i>Which are the benefits of PR?</i>	
Improvement in exercise capacity	100.0
Improvement in quality of life	100.0
Improvement of dyspnea	98.1
Reduced hospital admissions	98.1
Reduced need for pharmacological therapy	90.4
Reduced sputum production	80.8
Reduced need for medical re-evaluation	46.2
<i>Is a PRP available at your local hospital?</i>	
Yes	65.9
I do not know	28.8
No	5.8
<i>Have you ever considered referring a patient to a PRP?</i>	
Occasionally	50.0
Rarely	30.8
Never	11.5
Frequently	7.7
<i>Have you ever referred a patient to a PRP?</i>	
Never	46.2
Occasionally	28.8
Rarely	19.2
Frequently	5.8
<i>What were the main barriers to the referral of your patients to PRP?</i>	
Lack of information about methods of referral	50.0
Economical insufficiency of patients	50.0
Lack of good transport network	48.1
Lack of knowledge about the program	40.4
Absence of program	30.8
Doubts about the benefits	19.2
Doubts about the risks	7.7
Lack of confidence on the local program	7.7
Absence of patients that may benefit from program	3.8
<i>Do you consider that PR may have activity outside of a hospital setting?</i>	
PR at primary care units	78.8
Community programs	76.9
Domiciliary programs	67.3

## Authors' contributions

Gonalo Samouco and Lu s Vaz Rodrigues conceived the idea, developed the initial draft of the survey and wrote the manuscript. Margarida Maur cio, Lu s Ferreira, V t ria Martins and In s Sanches reviewed and suggested improvements upon the initial draft. Gonalo Samouco, Lu s Vaz Rodrigues and Margarida Maur cio collected and analyzed the data from the survey. All authors have read and approved the final version.

## Conflict of interest

The authors have no conflict of interest to declare.

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