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S. Diaz Lobato*, S. Mayoralas Alises, J.L. García G

Servicio de Neumología, Hospital Ramón y Cajal, Spain

*Corresponding author.
E-mail address: sdiazlobato@gmail.com (S. Diaz Lo

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Response to the letter ''Ambulatory oxygen: Is the 6 minute walk test the best option?''

Resposta à carta ''Oxigenoterapia de deambulação: será o teste de 6 minutos de marcha a melhor opção?''

We would like to thank the authors for their comment on our article[1] about the study on the prescription of ambulatory oxygen (AO) and for raising very pertinent and important issues.

Our findings of relatively low adherence to prescribed AO are consistent with other studies, for example, a recent Italian survey[2] which confirmed that only 41% of the patients reported used liquid oxygen when outside the house.

In our study we clearly defined the criteria for use of AO; these consisted of exercise hypoxemia which is documented by a standardized 6-min walk test (6MWT) on air, evidence of significant desaturation (to 88% or less), the patient being responsive to oxygen, and significant daily activity. According to our data, positive response during the 6MWT did not help to predict greater use of the portable oxygen systems (POS). This led us to the conclusion, highlighted in the article, that non-adherence to AO may be closely related to the social stigma or the physical characteristics (like weight) of the POS.

The authors correctly discuss the role of the 6MWT in prescribing AO. In fact, although the ATS statement on the 6MWT[3] is not very clear in relation to prescribing AO, some authors have suggested the need for up to five 6MWT. To minimize the learning effect, the first two are training sessions, one of which may be performed with the patient carrying the weight of the oxygen source,[4] and then the oxygen titration should be performed after three 6MWT to evaluate the effect of breathing air and two different oxygen doses.[5] However, there is no standard titration method. According to the COPD ATS Guidelines it is recommended that the resting flow rate be increased by 1l/min during exercise.[6] We opted to perform the walk test with the highest flow possible (6 L/min) because in some studies doubling the resting dose was not sufficient to prevent hypoxemia [4] and we wanted to make sure of providing adequate oxygenation during all activities. Moreover, we do not believe that in the real world the repetition of so many 6MWT is actually feasible and, in fact, 26% of respirologists around the world do not perform the oxygen titration test during exercise on every patient.[7]

It is important to note that the BTS recommendations published in 2006[8] suggest that ''the initial assessment should be followed by a review after two months v true value of AO can be judged by interview, diary oxygen usage''. In addition home follow-up within is strongly recommended. Without this monitoring might use systems or settings that do not maintain a oxygenation and as a consequence their physical a restricted and the health benefits lost. In our ce strict protocol is not followed and so long-term co with AO can be affected.

We believe, therefore, that the acute assessme be only one component of an AO evaluation. C compliance of oxygen use is urgently needed an designed Oxygen Therapy Monitoring Devices can the management of these patients.[9]

As we stated (because acute improvements parameters do not help predict outdoor activities) better tests to identify those who really respon As has been suggested by Vonbank et al.[10] hemo response to oxygen can be a better predictor. Oth implied that the more hyperinflated COPD patient ones that can benefit most[11] or we may even ha more stringent in the criteria for AO prescriptio gested by Leach et al.[5] and only consider those v 50% improvement in exercise ability!

One thing is certain, although we have to incr consensus around AO prescription, repeated edu sessions are definitely needed to improve compl long-term oxygen therapy.

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T. Vieira[a], I. Belchior[b], J. Almeida[b], V. Hespanhol[c], J.C. Winck[c,*]

[a] *Serviço de Imunoalergologia, Hospital de São João, Porto, Portugal*
[b] *Serviço de Pneumologia, Hospital de São João, EPE Porto, Portugal*
[c] *Serviço de Pneumologia, Hospital de São João, EPE Porto/Faculdade de Medicina da Universidade do Po Porto, Portugal*

[*] Corresponding author.
E-mail address: jwinck@hsjoao.min-saude.pt (J.C. W

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