Respiration 2015;90:88
DOI: 10.1159/000431203

Authors' Reply

Anne E. Holland^{a,c} Leona M. Dowman^{a,b,d} Catherine J. Hill^{b,d}

^aDiscipline of Physiotherapy, La Trobe University, ^bInstitute for Breathing and Sleep, and ^cDepartment of Physiotherapy, Alfred Health, Melbourne, Vic., and ^dDepartment of Physiotherapy, Austin Health, Heidelberg, Vic., Australia

We would like to thank Mrs. Vincent and Dr. Woodhead for their interest in our recent review paper [1] and their comments on rehabilitation for patients with ILD and rheumatological disease [2]. We agree that this patient group has unique rehabilitation needs that may not be met in the standard pulmonary rehabilitation program format. Joint and muscular manifestations result in pain and stiffness, which may limit the tolerance of standard exercise training regimens and prevent the progression of training loads. As we suggest in our paper, alternative exercise training modalities should be considered to facilitate an effective training dose, including non-weight-bearing activities such as cycling training and water-based training.

We note the authors' hypothesis that patients with ILD and rheumatological disease may present to pulmonary rehabilitation with a reduced exercise tolerance compared to those with ILD alone. Whilst we agree that this comorbid disease very likely has an impact on the functional exercise capacity in ILD, unfortunate-

ly there is little published data on the presentation or responses of patients with rheumatoid disease in pulmonary rehabilitation. As noted in figure 2 of our paper [1], out of 386 participants in randomised controlled trials of pulmonary rehabilitation for ILD, only 7 (2%) have had connective tissue-related ILD [3]. We look forward to future studies that can inform our rehabilitation approaches, including the optimal program format and expected outcomes.

Given the mounting evidence for benefits of exercise-based rehabilitation in ILD across a range of disease aetiologies and severities [3], we favour the inclusion of patients with ILD and rheumatological disease in pulmonary rehabilitation programs. The authors raise the interesting point that our colleagues in rheumatology may not yet be aware of the potential benefits of pulmonary rehabilitation for their patients with ILD. Their letter provides a welcome reminder that patient-centred care requires us to clearly articulate the benefits of new treatments, including pulmonary rehabilitation, to all members of multi-disciplinary teams.

References

- 1 Holland AE, Dowman LM, Hill CJ: Principles of rehabilitation and reactivation: Interstitial lung disease, sarcoidosis and rheumatoid disease with respiratory involvement. *Respiration* 2015;89:89–99.
- 2 Vincent EE, Woodhead FA: Specific needs of patients attending pulmonary rehabilitation with an interstitial lung disease associated with rheumatological disease. *Respiration* 2015;90:87.
- 3 Dowman L, Hill CJ, Holland AE: Pulmonary rehabilitation for interstitial lung disease. *Cochrane Database Syst Rev* 2014;10:CD006322.