CORRESPONDENCE

The 6-min walk test in patients with COPD: walk this way!

As the co-chairs of the joint American Society/European Thoracic Thoracic Society (ATS/ERS) task force on field exercise testing we noted with interest the work by Beekman et al, who describe reference values for a 6-min walk test (6MWT) performed around a 10 m course. These authors have previously shown that walk distances on this track provoke a significantly shorter distance than on the course consistently recommended in guidelines in patients with COPD.2 This protocol deviation does not represent a conventional 6MWT,³ and we suggest should be renamed to avoid confusion. Importantly, it remains unclear whether other important 'benchmark values' such as the minimal important difference (MID) and the distance below which survival is affected can simply be transposed to the 10 m-6MW. We appreciate that space is an important constraint in many clinical settings, including primary care environments, however we believe there are robust tests of walking performance that are conducted over a course shorter than 30 m, such as the incremental shuttle walking test, ^{4–6} and the 4 m gait. ^{7–10} It is currently unclear what this variant adds to this existing repertoire of field based exercise tests.

While we appreciate the test is conducted within 6 min, it does not accurately reflect current guidance on standard performance of the 6MWT in terms of track length. We would encourage researchers and clinicians to conduct the 6MWT as indicated in international guidelines.³ For clarity, we would propose to label this test as 10 m-6MW or comparable alternative. In addition we want to alert readers to the fact that for this version of the test little is known about the validity, reliability, responsiveness and its place in an endpoint model of outcomes.

Sally J Singh,^{1,2} Martijn A Spruit,^{3,4} Thierry Troosters,^{5,6} Anne E Holland^{7,8,9}

¹Centre for Exercise and Rehabilitation Science, University Hospitals of Leicester NHS Trust, Leicester,

²School of Sport, Exercise and Health Sciences, Loughborough University, Loughborough, UK ³Department of Research and Education, CIRO+, Centre of Expertise for Chronic Organ Failure, Horn, The Netherlands

⁴Faculty of Medicine and Life Sciences, REVAL-Rehabilitation Research Center, BIOMED-Biomedical Research Institute, Hasselt University, Diepenbeek, Belgium ⁵Respiratory Rehabilitation and Respiratory Division, University Hospital Leuven, Leuven, Belgium ⁶Faculty of Kinesiology and Rehabilitation Sciences, Department of Rehabilitation Sciences, KU Leuven, Leuven, Belgium

⁷Institute for Breathing and Sleep, Austin Health, Melbourne, VIC, Australia

⁸Department of Physiotherapy, La Trobe University, Melbourne, VIC, Australia

⁹Department of Physiotherapy, Alfred Health, Melbourne, VIC, Australia

Correspondence to Dr Sally Singh, Centre for Exercise and Rehabilitation Science, University Hospitals of Leicester NHS Trust, Leicester LE3 9QP, UK; sally.singh@uhl-tr.nhs.uk

Contributors All authors contributed to the text and approved the letter prior to submission. SJS is responsible for the overall content as quarantor.

Competing interests None.

Provenance and peer review Not commissioned; internally peer reviewed.



To cite Singh SJ, Spruit MA, Troosters T, et al. Thorax 2015;**70**:86.

Received 20 August 2014 Accepted 5 September 2014 Published Online First 18 September 2014



- ► http://dx.doi.org/10.1136/thoraxinl-2014-205228
- http://dx.doi.org/10.1136/thoraxjnl-2014-206268

Thorax 2015;**70**:86. doi:10.1136/thoraxjnl-2014-205928

REFERENCES

- Beekman E, Mesters I, Gosselink R, et al. The first reference equations for the 6-minute walk distance over a 10 m course. Thorax 2014;69:867–8.
- 2 Beekman E, Mesters I, Hendriks EJ, et al. Course length of 30 metres versus 10 metres has a significant influence on six-minute walk distance in patients with COPD: an experimental crossover study. I Physiother 2013:59:169–76
- 3 ATS. ATS statement: guidelines for the six-minute walk test. *Am J Respir Crit Care Med* 2002;166:111–17.
- 4 Singh SJ, Morgan MD, Scott S, et al. Development of a shuttle walking test of disability in patients with chronic airways obstruction. *Thorax* 1992;47:1019–24.
- 5 Probst VS, Hernandes NA, Teixeira DC, et al. Reference values for the incremental shuttle walking test. Respir Med 2012;106:243–8.
- 6 Singh SJ, Jones PW, Evans R, et al. Minimum clinically important improvement for the incremental shuttle walking test. *Thorax* 2008;63:775–7.
- 7 Kon SS, Canavan JL, Nolan CM, et al. What the 4-metre gait speed measures and why it cannot replace functional capacity tests. Eur Respir J 2014:43:1820–2
- 8 Kon SS, Canavan JL, Nolan CM, et al. The 4-metre gait speed in COPD: responsiveness and minimal clinically important difference. Eur Respir J 2014;43:1298–305.
- 9 Kon SS, Patel MS, Canavan JL, et al. Reliability and validity of 4-metre gait speed in COPD. Eur Respir J 2013;42:333–40.

10 Karpman C, Depew ZS, Lebrasseur NK, et al. Determinants of gait speed in chronic obstructive lung Disease. Chest 2014;146:104–10.

