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### **CORRESPONDENCE**

## Re: 'Why Do Health Systems Not Fund Supervised Exercise Programmes for Intermittent Claudication'

More studies are needed to determine which exercise programmes for intermittent claudication should be funded.

We read with interest the editorial by Popplewell and Bradbury. 1 Treatment of claudicants aims at improving health related quality of life (HRQoL) by improved daily-life walking. Treadmill walking distance but not HRQoL improves more with, for example, hospital based supervised exercise programmes (SEP) than with unsupervised exercise programmes (UEP). Treadmill walking, the primary outcome in many studies, is also used as training modality in many SEPs but not in UEPs or home based (HEP) supervised exercise programmes, introducing a risk of bias. Moreover, the outcome treadmill walking is questioned and daily-life walking (GPS monitored) or corridor tests (e.g. 6 minute walk test, 6MWT) correlate better to HRQoL. Many claudicants dislike prolonged training programmes and compliance to SEP may be only 20-40% at 1 year. We identified seven randomized and two non-randomized controlled trials in a recently submitted systematic review (unpublished) evaluating HEP compared with SEP or UEP. HEP and UEP were inferior to SEP regarding treadmill walking whereas HEP improved the 6MWT compared with UEP and SEP.

Hence, although SEP improves treadmill walking, the generalizability to claudicants in general may be uncertain and the links to improved daily-life walking and HRQoL unclear. We agree that further RCTs are required and suggest these should include ≥12 month follow up, HRQoL, and "daily-life" walk tests. We have started such a study comparing SEP, HEP, and UEP (SUNFIT Trial, ClinicalTrials.gov NCT02341716) and hopefully further studies will be initiated. We believe they are needed.

#### REFERENCES

- 1 Popplewell MA, Bradbury AW. Why do health systems not fund supervised exercise programmes for intermittent claudication? Eur J Vasc Endovasc Surg 2014;48(6):608-10.
- 2 Nordanstig J, Broeren M, Hensäter M, Perlander A, Osterberg K, Jivegård L. Six-minute walk test closely correlates to "real-life" outdoor walking capacity and quality of life in patients with intermittent claudication. J Vasc Surg 2014;60(2):404-9.
- 3 Layden J, Michaels J, Bermingham S, Higgins B. Guideline Development Group. Diagnosis and management of lower limb peripheral arterial disease: summary of NICE guidance. BMJ 2012;**345**:e4947.

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# Re: 'More Studies are Needed to Determine Which **Exercise Programmes for Intermittent Claudication Should** be Funded'

We would like to thank the authors of the SUNFIT trial for their input on this important issue in response to our recent editorial on this subject. We agree that good quality evidence surrounding patient-centred outcomes such as health-related quality of life is missing in the current literature, with too many studies focusing on multiple "performance"-related outcomes such as maximal walking distance and treadmill walking.

Hopefully the upcoming SUNFIT trial will shed some light on which intervention, if any, provides a more long-term, clinical, and cost-effective therapy for our patients with intermittent claudication, vital evidence that the National Institute for Health Care and Excellence called for in the published Clinical Guideline 147. We would also advocate the need for such a study in the UK to help advise patients, clinicians, and healthcare providers.

# **REFERENCES**

- 1 Popplewell MA, Bradbury AW. Why do health systems not fund supervised exercise programmes for intermittent claudication? Eur J Vasc Endovasc Surg 2014;48(6):608e10.
- 2 National Institute for Health Care Excellence. Lower limb peripheral arterial disease: diagnosis and management. (Clinical Guideline 147) 2012. Available at: http://www.nice.org.uk/guidance/ CG147; [accessed 08.05.15].

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