SIR—We were interested to read the studies by Kallinen et al. [1] and Malbut et al. [2], together with the accompanying editorial on the trainability of elderly people [3]. Whilst the efforts of the investigators in deepening our knowledge of the response of older people to exercise training are laudable, we wholeheartedly agree that measurements involving peak oxygen uptake are not appropriate for this group of subjects.

Measuring peak oxygen uptake involves complex and expensive equipment, and usually involves treadmill or exercise cycle based maximal exercise. A significant proportion of frail older people are unable to perform treadmill testing [4], and musculoskeletal and neurological problems may make it difficult to attain maximal cardiorespiratory effort. Attempts to counter these problems by excluding patients unable to undertake such maximal exercise testing results in a highly selected and unrepresentative group of individuals.

Nor are measures of exertion based on heart rate e.g. heart rate at a given oxygen uptake, likely to improve matters. Heart rate in older people is affected by a number of common problems, including rate-limiting medications, atrial fibrillation, by chronotropic incompetence that accompanies heart failure – also common in this age group, and by conduction system, atrioventricular and sinoatrial node disease.

We suggest that measures of submaximal exercise capacity that reflect function in everyday life are much more appropriate for this type of study. The 6-minute walk test is probably the most extensively investigated of these measures. It has face validity as an integrated measure of musculoskeletal, neurological and cardiorespiratory function, and reflects the type of activity common in everyday life.

The 6-minute walk has been validated in several disease states, including chronic obstructive pulmonary disease [5], chronic heart failure [6], peripheral vascular disease [7], fibromyalgia [8] and pulmonary hypertension [9]. It has been validated in older ambulant community adults [10], in frail older people with heart failure and comorbid disease [6], and has good reproducibility. It has been shown to be a sensitive measure with respect to changes induced by exercise, and it correlates not only with perceived physical health status and reported functional capacity, but at least in chronic heart failure and chronic respiratory disease, with mortality and hospitalisation.

If studies of exercise training in older people are to be of use in informing our management of patients in the clinic or in the community, they need to use outcome measures that are simple, relevant to everyday activity and inclusive. Oxygen uptake measurements are none of these.


