

EDITORIAL

The future of exercise therapy for people with intermittent claudication?

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National Institute for Health and Care Excellence (NICE) guideline 147 recommends supervised exercise therapy (SET) for all patients with intermittent claudication, consisting of 2 hours of SET per week for a 3-month period.¹ This is supported by good evidence from Cochrane reviews^{2,3} that SET shows improvement in mean walking performance compared with home-based exercise and walking advice, with an increase of 120–210 metres, and also has comparable results to endovascular revascularisation. Despite this evidence and the guidance from NICE, the provision of SET is variable with <50% of UK hospitals providing SET and <25% meeting the NICE dose recommendation.⁴ With centralisation of services into a hub and spoke model, the spokes are likely to have inferior access to SET. Furthermore, attendance and uptake rates to SET are often less than 25%.⁵ Barriers associated with provision and uptake include access, time, travel and pain.

To help meet best practice recommendations, reduce unnecessary interventions and improve mobility and quality of life, innovations in practice are required. One example in recent practice is the integration of patients with peripheral arterial disease into cardiac rehabilitation. This helps to make exercise more accessible to a larger number of people. More recently, application of remote monitoring through regular telephone consultations, mobile technology and fitness trackers has become more attractive due to the COVID-19 pandemic. Remote monitoring can help deliver exercise therapy and provide feedback directly to healthcare professionals in order to monitor adherence. It may also help identify people with deteriorating symptoms who may require more invasive intervention. The use of these approaches can provide direct

streamlined communication with patients, potentially reducing delays to presentation and minimising the need for outpatient appointments.

Recent work has investigated the potential use of remote monitoring techniques. The REmotely Supervised Exercise Therapy Trial (RESET2) pilot trial⁶ is currently recruiting and compares the use of electronic walking logs with and without fortnightly video calls with a physiotherapist. The Motivating Structured walking Activity in people with Intermittent Claudication (MOSAIC) trial⁷ compares standard care to a brief physiotherapist-led walking behaviour change programme that includes 2x60 minute face-to-face sessions and 2x20 minute phone calls with pedometers delivered over 12 weeks. Each session is underpinned by a motivational interviewing approach and incorporates behavioural change principles (goal setting, action planning and relapse prevention). The PrEPaid trial⁸ investigates the effect of patient-centred education and pain management using electrical stimulation intervention, incorporating motivational interviewing techniques, goal setting, activity tracking and remote monitoring through regular telephone calls.

A recent meta-analysis including 23 studies and 1907 participants compared supervised exercise, home exercise and non-exercise controls.⁹ Whilst home-based programmes still appeared to be inferior to supervised programmes in terms of improving maximal walking distance, this was removed when a sensitivity analysis was included to determine the impact of monitoring. It further demonstrates the applicability of using monitoring to deliver successful home-based interventions in this population.

Key words: remote monitoring, exercise therapy, innovation

Accordingly, a number of dedicated mobile applications have also been developed for individuals with peripheral arterial disease. TrackPAD showed an improvement over standard care, and increased walking distance by 83 meters compared with an average reduction of 38.8 metres.¹⁰ JBZetje is a Dutch app that provides remote monitoring with direct feedback to clinicians.¹¹ The CONTECI programme, aimed at using mobile technology to empower patients through education, reduces time to diagnosis of complications and improves quality of life and patient satisfaction.¹² Lastly, VascTrac is being considered in the USA¹³ using iPhones to monitor overall physical activity and also includes specific walk tests. Whilst mobile applications appear promising, the quality and access to digital services may be limited by patient and clinician digital literacy, variable internet connectivity, technological issues such as National Health Service firewalls and data governance. Crucially, some patients may not have access to equipment or internet services, leading to digital exclusion and potentially creating health inequalities.

In conclusion, with healthcare systems promoting patient empowerment, innovations in practice that incorporate remote monitoring and reductions in face-to-face appointments are essential. The use of wearable technology, mobile phone applications and video consultations is increasing, with direct connectivity to healthcare professionals an imperative component of this pathway. These innovative technologies require further development to incorporate behaviour change techniques and supported exercise classes, followed by integration into safe care pathways. The future of exercise therapy is not one size fits all. A range of options including face to face SET, behaviour change interventions, wearable technology and/or mobile phone applications should be provided to incorporate patient preferences, optimise access and improve health outcomes.

Conflict of Interest: PWS has set up Walk-A-Cise Ltd to develop an exercise therapy mobile phone application.

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