**Patient-reported outcome measures in patients with peripheral arterial disease:**

**A systematic review**


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**Introduction**

Peripheral artery disease (PAD) in the lower limbs is a clinical presentation of generalised atherosclerosis and is common in people aged 70 years.\(^1\)\(^,\)\(^2\) Symptomatic PAD results in significant functional limitations and reduced health-related quality of life (HRQoL).\(^3\)\(^,\)\(^4\) To help capture the impact of treatments provided to affected patients by Vascular Services in the UK, it is important to use appropriate PROMs for assessing patients in the relevant setting.

The aim of this review was to identify validated PROMs and to select appropriate PROMs for the clinical assessment of patients with PAD in the UK.

**Methods**

The review was conducted in accordance to the Preferred Reporting Items for Systematic Reviews and Meta-analysis recommendations.

Reported measurement properties (domains) of identified PROMs were summarised using psychometric and operational criteria based on the COSMIN criteria\(^5\)\(^,\)\(^6\) and the Oxford system.\(^7\) The combined rating scales were (0) for not reported, (+/-) for evidence not in favour, (+/) for conflicting evidence, (+) for evidence in favour.

**Results**

Of 6,682 screened records, 15 prospective studies were included. There was one international study, remaining studies were conducted in Australia (n = 1), UK (n = 7) and USA (n = 6). Studies were diverse in terms of study population.

Additionally, there was no evidence relating to defined populations with advanced PAD or full psychometric evaluation of a single PROM.

**Conclusions**

- Available evidence demonstrates extensive clinical heterogeneity and methodological quality in studies examining measurement properties of PROMs in patients with peripheral arterial disease.
- Although validation did not cover all relevant measurement properties, the VascuQoL and the Peripheral Arterial Questionnaire demonstrated relatively good psychometric properties, whereas the WIQ appeared to be a good measure of functional status.
- To ensure effective capture of the impact of the PAD, careful selection of appropriate PROMs in routine clinical use is essential.

**Abbreviations**

- Domain: Physical Function, Physical Role, Bodily Pain, General Health, Vitality, Social Function, Role Emotional, Mental Health
- Generic PROM: EQ-5D, EuroQol; NHP, Nottingham Health Profile; POMS, Profile of Mood States; SF-36, Medical Outcomes Study 36-Item Short Form
- Condition-specific PROM: AUSSIDQOL, Australian Vascular Quality of Life Index; CLAU-S, Claudiation Scale; EIA-QOL, Estimation of Ambulatory Capacity by History-Questionnaire; IGI, Intermittent Claudication Questionnaire; PADQOL, Peripheral arterial disease (PAD) Quality of Life Questionnaire; PAQ, Peripheral Arteries Questionnaire; SF-12, Sanssui Impact Profile – Intermittent Claudication; VascuQoL, King's College Hospital's Vascular Quality of Life Instrument; WIQ, Walking Impairment Questionnaire

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**References**

2. Peach S, Griffin M, Jones KG et al., Diagnosis and management of peripheral arterial disease. BMJ 2012;345:e5208.