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Peripheral Arterial Disease -- A Cardiovascular Time Bomb

Jill Belch; Gerry Stansby; Cliff Shearman; Julie Brittenden; Shiela Dugdill; Gerry Fowkes; Sarah Jarvis; Terrie Mccann; Andrew Mimmagh; David Monkman; Jonathan Morrell; The Target Pad Group

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Abstract and Introduction

Abstract

Peripheral arterial disease (PAD) is a reliable marker of future vascular disease and is a substantial public health issue. In Europe and North America, 27 million people are estimated to have PAD, and in the UK around 100,000 people are diagnosed every year. People with PAD are six times more likely to die from cardiovascular disease within 10 years than people without PAD. Evidence suggests that aggressive risk factor management will prevent many premature deaths and associated morbidity. Therefore, it is vital to identify patients and initiate effective management strategies swiftly. However, whilst 40% of PAD patients have symptomatic disease ranging from intermittent claudication to critical limb ischaemia, around 60% are asymptomatic. As a result of the low rates of detection PAD is underdiagnosed and undertreated in the UK. The gravity of the problem has prompted the formation of professional bodies to address this situation through the development of national clinical guidelines. Indeed, with the focus of general practitioners' work covered by the quality and outcomes framework in the General Medical Services (GMS) contract, many consider that the inclusion of PAD in the GMS contract is critical to raising awareness and improving the management of PAD in primary care.

Introduction

PAD is a significant public health issue and is as reliable a marker for future vascular disease as CHD and stroke. The omission of PAD from the UK's GMS contract is surprising given that experts representing the Joint British Societies and policy makers (the CHD National Service Framework acknowledged that CVD accounts for two thirds of all premature deaths in England)^[1] recognise the importance of addressing PAD to reduce the morbidity and mortality from vascular disease.^[2]

This omission is all the more significant given the emphasis on other atherothrombotic manifestations - CHD and stroke, and numbers of key publications calling for action in PAD.^[3]

Scale of the Problem

In Europe and North America an estimated 27 million people have PAD. Forty per cent have symptomatic disease^[4] (intermittent claudication or, in severe cases, critical limb ischaemia) and in the remaining 60%^[3] the condition is asymptomatic. Assessing the symptoms and signs of PAD is the first step in a recent PAD management algorithm developed by the Target PAD group (figure 1). In the UK over 100,000 people are newly diagnosed with PAD each year,^[5] and most practices will see six to eight patients with symptomatic, and more than ten asymptomatic, PAD patients a year. The prevalence of PAD increases markedly with age, affecting 3% of people under the age of 60 years of age, rising to over 20% in people over 75 years of age.^[6] Data from the Edinburgh Artery Study found a prevalence of intermittent claudication of 4.5% in the population aged 55 to 74 years. We believe that the management of

symptomatic PAD should be optimised for the following reasons.

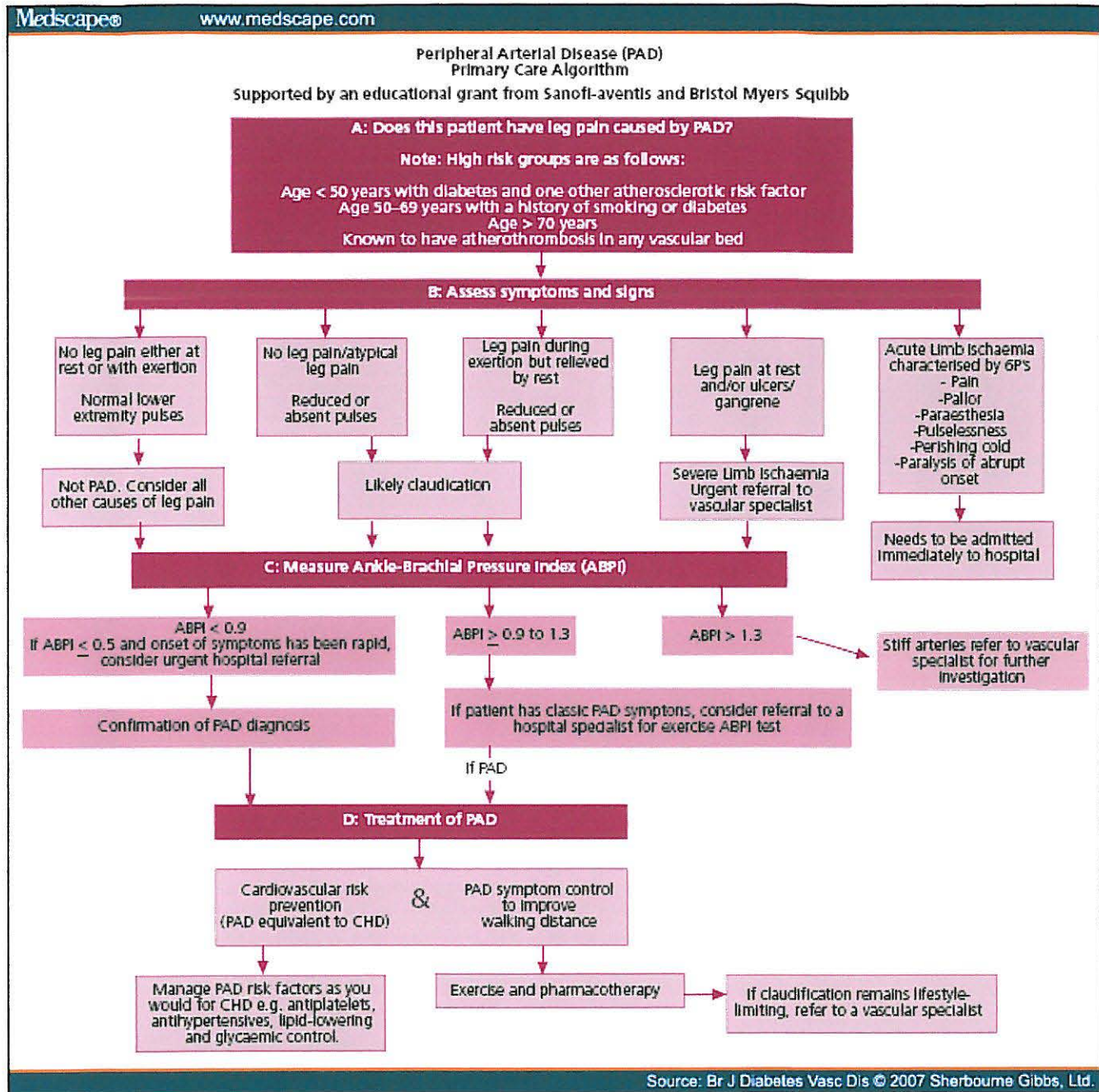


Figure 1.

Peripheral arterial disease (PAD) primary care algorithm.^[23] Adapted with permission from J Belch, on behalf of the Target PAD. Copies of the algorithm can be requested via padcampaigning@hhealth.com

Patients with symptomatic PAD have significantly reduced mobility and poor quality of life, claudication results in a reduced physical component quality of life score - lower than for arthritis, cancer or chronic lung disease.^[7] Equally important, PAD is a major marker for other CVDs (comparable to angina).^[3] For example, in a survey of 1,886 men and women aged ≥ 62 years with PAD, 58% had coronary artery disease and 34% had ischaemic cerebral infarction.^[8] As a result, 60% of PAD patients die from MI and 12% from stroke,^[9] and **people with PAD are six times more likely to die**

from CVD than those without PAD.^[10]

The REduction of Atherothrombosis for Continued Health (REACH) Registry is an ongoing world-wide registry of prevalence, treatment and events in > 68,000 CVD patients, recruited in 44 countries, including the UK. Amongst patients with CHD, stroke and PAD, those patients with PAD had the highest death rates at one year.^[11] This equates to the mortality seen in Duke's stage B carcinoma of bowel.^[12] Furthermore, PAD patients were more likely to have widespread atheromatous disease in multiple vascular beds (62%), than patients with either CHD (25%) or stroke (40%).^[11,6] As the presence of PAD is a red alert for the existence of widespread atherothrombosis it should provide a powerful stimulus for action. However, despite these compelling statistics, PAD remains underdiagnosed and patients often do not get proper care until the associated heart disease becomes evident.^[13] In order to improve quality of life and reduce mortality, we need improved diagnosis and aggressive treatment of the vascular risk associated with PAD.

Call to Action

The extent of the problem, combined with low rates of detection, has prompted the formation of two professional bodies to address these issues. In 2003 the PAD Antiplatelet Consensus Group, an assembly of 20 specialists in the management of PAD, produced a consensus statement on the use of antiplatelet therapy in PAD.^[14] The International PAD Network also produced recommendations for the management of PAD, culminating in a five point 'Call to Action' for better awareness, identification, and treatment of PAD.^[3] The authors emphasise that the presence of PAD is evidence of disseminated atherothrombotic disease and that diagnosis and treatment of PAD, particularly vascular risk management, are critical for patient survival.^[3]

Evidence-based studies show benefit from addressing risk in this population.^[15-17] Thus effort needs to be directed towards modification of risk factors (chiefly hypertension, dyslipidaemia, diabetes, smoking and platelet aggregation). Interventions include improved diet and exercise, smoking cessation programmes such as short-term nicotine replacement therapy, drug therapy which typically includes an antiplatelet agent and cholesterol lowering therapy and, where necessary, blood pressure and glucose regulation. Addressing these risk factors has the potential to improve quality of life and reduce the risk of future vascular events. As there are published guidelines to help practitioners this task should be reasonably easy.^[4,18,19]

Including PAD in the GMS Contract

The targets covered by the QOF of the GMS contract now provide the focus for work by General Practitioners. As a result, diseases in the contract are more likely to be managed, whilst diseases not included may be given less attention unless they fall within the particular interest of a general practice.

Within the QOF, the GMS contract awards CHD 121 points - more than any other area - and stroke and transient ischaemic attack 31 points. But PAD, the third manifestation of the atherothrombotic triad, is notably absent, despite the inextricable link between the three conditions.^[20]

PAD does not need to be included as a separate section in the GMS contract - indeed it should not be separated, given that it is caused by entirely the same process as MI and most strokes, but initially manifests in a different area of the body. It would be sufficient to encourage doctors to assess middle aged and elderly patients with leg pain for PAD. This could be achieved quite easily in the existing quality indicators framework - by changing the term 'coronary heart disease' to 'cardiovascular disease', which includes PAD. **Importantly patients with asymptomatic disease also have a high level of CV events and mortality,^[21] and screening for such patients may become an important issue in the future.**

PAD Must not Stay on the Periphery

The GMS contract cannot continue to ignore a substantial subgroup of patients with atherothrombotic disease if it is to achieve its aim of improving healthcare and reducing death from CVD. PAD should be treated as an equivalent to coronary disease and we believe that the addition of PAD to the GMS contract should be brought about as speedily as possible in order for patients to receive the appropriate level of care.

Target PAD

It is the aim of the Target PAD group to improve outcomes and quality of life for patients with PAD by raising awareness through education of patients, medical professionals and policy makers. Target PAD has addressed the omission of

PAD from the GMS contract in a lead letter published in the *British Medical Journal*,^[22] however, we feel that this issue remains important and requires ongoing debate. If you would like to support us in our mission, please e-mail padcampaigning@hhealth.com for further information.

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Sidebar: Key Messages

- People with PAD are six times more likely to die from CVD within 10 years than people without PAD
- Aggressive risk factor management in patients with PAD will prevent many premature deaths and much

unnecessary morbidity

- Although PAD is associated with a high risk of CV events it is underdiagnosed and undertreated in the UK
- PAD needs to be included in the GMS contract to encourage provision of appropriate care for these patients

Abbreviation Notes

CV = cardiovascular; CVD = cardiovascular disease; CHD = coronary heart disease; GMS = general medical services; MI = myocardial infarction; PAD = peripheral arterial disease; QOF = quality and outcomes framework

Reprint Address

Professor Jill Belch Professor of Vascular Medicine, Vascular Diseases Research Unit, The Institute of Cardiovascular Research, University of Dundee, Ninewells Hospital and Medical School, Dundee, DD1 9SY, Scotland. Tel: +44 (0)1382 632 457; Fax:+44 (0)1382 632333 E-mail: J.J.F.Belch@Dundee.ac.uk

Jill Belch,¹ Gerry Stansby,² Cliff Shearman,³ Julie Brittenden,⁴ Shiela Dugdill,⁵ Gerry Fowkes,⁶ Sarah Jarvis,⁷ Terrie Mccann,⁸ Andrew Mimmagh,⁹ David Monkman,¹⁰ Jonathan Morrell,¹¹ The Target Pad Group

¹Vascular Diseases Research Unit, The Institute of Cardiovascular Research, University of Dundee, Ninewells Hospital and Medical School, Dundee, DD19SY, Scotland.

²The Northern Vascular Unit, Freeman Hospital, Newcastle Upon Tyne, NE77DN, UK.

³Southampton University Hospitals NHS Trust, Tremona Road, Southampton, Hampshire, SO16 6YD, UK.

⁴Department of Surgery, Polwarth Building, University of Aberdeen, Aberdeen, AB25 2ZN, Scotland.

⁵Northern Vascular Centre, Freeman Hospital, Freeman Road, High Heaton, Newcastle Upon Tyne, NE7 7DN, UK.

⁶Wolfson Unit for Prevention of Peripheral Vascular Disease, University of Edinburgh, EH8 9AG, Scotland.

⁷Richford Gate Medical Practice, Richford Gate Primary Care Centre, Richford Street, London, W6 7HY, UK.

⁸The Circulation Foundation, 35-43 Lincoln's Inn Fields, London WC2A 3PE.

⁹Eastview Surgery, 81 Crosby Road North, Waterloo, Liverpool, L22 4QD, UK

¹⁰East Barnet Health Centre, 149 East Barnet Road, New Barnet, Herts, EN48QZ, UK.

¹¹21 Beaconsfield Road, Hastings, East Sussex, TN34 3TW, UK.