Peripheral Patients?
Peripheral Arterial Disease: A Health Policy Review

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Executive Summary

This paper highlights the global avoidable crisis in Peripheral Arterial Disease (PAD). By drawing together international evidence relating to the treatment of PAD it shows very clearly that the disease suffers from widespread misperceptions of the health risks involved. Clinical guidelines are neglected, which produces poor patient outcomes and generates significant health and social system costs due to avoidable admissions to expensive inpatient or nursing home care. The disease is avoidable and treatable. Five “steps for PAD” are recommended, to improve awareness and clinical practice.

Deadly, Spreading ... Treatable

Peripheral Arterial Disease is a marker of more extensive arterial disease, and carries a high risk of disability and death. In fact, someone with PAD faces a five to six times higher risk of cardiovascular morbidity or death compared to those without the disease.[1] Analysis in England showed that some 10 to 15 percent of people with a PAD diagnosis die within five years from cardiovascular causes, and a further 20 percent suffer a heart attack or stroke that they survive[2]. Leg amputations due to vascular disease can be surprisingly common and are rising; these patients are more likely to die in the following five years than people with cancers of the breast, colon or prostate[3]. not just a “leg problem”; it carries a high risk of disability and death and the burden on patients is high[4].

PAD is closely associated with age and with the prevalence of diabetes. Rapid population ageing across the globe, combined with the spread of obesity and diabetes[5, 6], heightens the priority to better control the risks associated with PAD. Current estimates suggest that there are more than 200 million people with PAD[7]. There are, therefore, more than five times as many people living with PAD than with HIV [8, 9].

Familiarity breeds contempt?

The disease and measures to manage its risks and treat its symptoms are well established in medicine. As with other forms of cardiovascular disease (CVD), support for smoking cessation and regular exercise should be the priority in good care. Similarly, it is important to manage blood cholesterol and blood pressure. It appears, however, that PAD is given a lesser priority than other forms of CVD, leading to more limited use of important treatments [10-14].

There are a range of possible explanations for clinicians’ neglect of PAD:

- The association with age may reduce its priority, particularly in patients with several co-morbidities[15].
- Medical disapproval of a disease that is perceived to be “self-inflicted” may play a part[16, 17].
- Clinicians (and patients) may find it hard to associate high risks of heart attack and stroke with symptoms that commonly appear in the lower extremities[10].
- Health system and professional structures can mean that localised symptoms and systemic risks span artificial boundaries, generating gaps in the care pathway

One of the ironies of PAD is that diagnosis is relatively simple, initially by using a handheld device to compare blood pressure between the arm and the ankle, known as the Ankle-Brachial Index (ABI) or Ankle-Brachial Pressure Index (ABPI). Undertaken by a trained nurse or podiatrist this adds just five to 15 minutes to a check-up.[18]. Yet ABI use can be uncommon or incorrect[19, 20].
Poor care is expensive care

Among those living with PAD the disease adversely affects quality of life across the whole spectrum of severity. Pain and disability involved create leading, for example, to levels of result in work absenteeism four times that of other people of the same age[4]. Whilst most associated with old age, the disease appears to have a wider range of causes in the young, presenting exceptional challenges[21]. The disease can progress most rapidly in those who experience symptoms before 45 years of age, and with the most severe outcomes [22, 23]. People of working age with diabetes and PAD have particularly high treatment needs and costs[24].

If the disease is allowed to progress from intermittent pain (claudication) at exercise, to constant pain at rest, ulceration or gangrene its impact on daily activities also increases dramatically. Lower limb problems are particularly associated with nursing home admission[25], which impose significant costs on health and social care systems and upon the families affected[26].

Once someone with PAD is hospitalised its costs escalate dramatically. Inpatient care accounts for as much as 75% of all PAD spending[27]. This escalation should give a powerful incentive towards a focus on routine preventative care, although there are surprisingly few examples to demonstrate this effect in practice. One UK hospital found that just a £33,000 annual spend on a multidisciplinary foot care team produced seven times this amount in savings on amputations[28].

The inequity in PAD is striking, yet receives little attention[29, 30]. At its most extreme it is seen in rates of deaths and amputations[28]. Mapping these would serve not only to improve care where it is most needed, but also to heighten public awareness of the disease and its avoidable consequences.

Stepping up

Poor awareness of PAD is not for want of efforts by specialist heart and vascular disease groups in many countries. A general shift in understanding of this common, serious disease has not been achieved. There are, however, local examples of improvement in several of the countries studied, particularly in the use of payment and feedback systems. Structural problems that can prevent the development of an effective care pathway are not easily overcome. Solutions need strong local leadership and funding streams need to support collaboration rather than prevent this. Combination strategies that combine guidance and awareness with locally-owned systems to incentivise and support good practice may be needed.

The paper proposes “five steps for PAD’

1. Campaigns highlighting local, national, and international inequalities in mortality and amputation rates
2. Collaboration with Diabetes, CVD, and kidney disease campaigns
3. Education and training modules for primary care providers, supported by robust incentive and performance feedback systems
4. Research into the potential benefits of facilitated diagnosis
5. Research into the impact of integrated care on disease outcomes.

It is by no means accidental that the first two relate solely to awareness. Unless the scale and severity of the problem is understood the other three actions will prove futile. PAD is not a new disease, it is simply neglected. It shares common risk factors and treatment for risk factors with heart disease and stroke. PAD is an important marker of more extensive arterial sclerosis, carrying exceptionally high risks. If this is understood and acted upon then many lives and limbs can be saved. For much too long PAD appears to have been dismissed as a vascular problem of the lower body. Like cancer, PAD “spreads”. There seems to be little reason why it should not have similar public engagement. As life expectancy increases, and the spread of
obesity and diabete continues, PAD will increasingly affect people who will otherwise have working, active lives ahead of them. It is a readily avoidable crisis of demographic and social change.

With better understanding will come better potential for the successful redesign of clinical training, incentive systems, and care pathways. This report has highlighted some examples of improved care, delivering much better outcomes, all of which are rooted in a shared understanding of the disease and its risks.

It is rare in health policy that so much can be changed simply through better use of existing knowledge, and the implementation of existing policies. The potential for improvement that will benefit lives, health systems and economies seems huge, and it is shocking that the track record is so poor.

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