

Enabling podiatry-vascular partnerships for tackling chronic limb-threatening ischaemia. How is your Wifi?

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The advent of multidisciplinary diabetes foot teams in the 1980s (Edmonds et al, 1986), led mainly by diabetologists and podiatrists, started to show reductions in diabetes-associated lower-limb amputations. However, there were no such collaborations established at that time between vascular surgeons and podiatrists. With no history of the two professions working routinely together, podiatrists were mostly 'not allowed' to directly refer people with high-risk lower limbs directly to vascular surgeons. Vascular out-patient clinics were clogged with often low-risk 'achy limb' referrals, and severe limb ischaemia referrals were lost in waiting lists. Peripheral arterial disease generally was under-diagnosed and under-managed, posing a risk to both cardiovascular and limb health (Belch et al, 2007). Mutual anecdotal blaming for too many avoidable amputations was all too common and very little had (and still hasn't) been published around successful initiatives to reduce lower-limb disease associated cardiovascular mortality (Young et al, 2008).

Early podiatry-vascular partnerships and the emergence of Wifi

Podiatrists in areas like Greater Manchester started collaborating with local vascular teams (specialist nurses and surgeons) and have worked since on changing this unhelpful status quo. This has been achieved by building mutual awareness, trust, respect, cooperation and changes around scope of practice and joint working in vascular out-patient clinics, particularly between specialist podiatrists, specialist nurses and vascular surgeons. This resulted in the first NHS podiatrist-led, community-based peripheral arterial disease service being developed and commissioned in 2009, with a focus on the clinical diagnosis and management of people referred with suspected PAD. Clinical triage pathways were developed for those people without PAD and with non-severe PAD to be referred back to GPs for alternative lower-limb diagnoses and cardiovascular risk management.

Those with severe or limb-threatening PAD were referred to vascular teams. This resulted locally in a

reduction in hospital vascular referrals for those referred with suspected PAD of around 80%, thus improving patient access, saving costs and focusing hospital vascular time and resources on those who most needed it (Fox et al, 2012). This was closely followed in Salford by a similar service model, which demonstrated similar trends in triage, quality improvement and cost savings (Matthews et al, 2015).

These new partnerships between podiatry and vascular teams were acknowledged by NICE and led on to the writing and signing of the first memorandum of understanding between the Royal College of Podiatry and the Vascular Society of Great Britain and Ireland. For the first time, the principles of a joint collaborative approach to tackle the challenge of under-diagnosed and under-managed PAD in the population were agreed upon (Fox et al, 2015).

Such a collaborative approach is also important in secondary care diabetic foot clinics, where podiatrists are the gatekeepers throughout the working week. They assess ulcerated patients, and triage who need urgent vascular assessment. Podiatrists may have a vascular laboratory available to carry out a detailed evaluation, but otherwise will need to assess the vascular status themselves. Such a vascular assessment, whoever performs it, will help the podiatrist decide whether to contact the vascular surgeon and arrange for urgent same day review, or arrange for the patient to be seen in the multidisciplinary diabetes foot clinic. In many instances, this is attended by the vascular team in person, or they at least are contactable by phone.

'Across the pond' in the USA, partnerships were also developing around the need for amputation prevention, with the emergence of the 'toe and flow' concept, bringing together the best of podiatry and vascular teams (Rogers et al, 2010). This resulted in the transformation of the existing University of Texas wound classification system (Armstrong et al, 1998) into the Wound, Ischemia, Foot Infection (WIFI) wound classification system (*Figure 1*) (Mills et al, 2014), with a greater emphasis on the clinical diagnosis and severity stratification of ischaemia and infection, in

order to help prioritise and triage more complex and acutely limb-threatening wounds for urgent, timely vascular and podiatric surgical intervention.

Wifl access for all people with suspected CLTI?

The new Global Vascular Guidelines (Conte et al, 2019) written by an international panel of vascular, podiatry and diabetes experts have now adopted Wifl as the preferred wound classification system for podiatry, vascular and all lower-limb teams, particularly to support the identification and management of chronic limb-threatening ischaemia (CLTI). CLTI differs from critical limb ischaemia (CLI) in that CLI is simply severe chronic ischaemia in a limb, whereas CLTI can be ANY severity of clinically diagnosed PAD, PLUS a limb wound of >2 weeks duration, with or without associated infection. This categorises limb threat in a much broader group of people with lower limb wounds and is relevant for people who have PAD, both with and without diabetes. This is particularly important given that around half of all non-traumatic lower-limb amputations occur in people without diabetes (Ahmad et al, 2016).

The dark days of inequality of access to NHS podiatry and low Wifl uptake?

Despite this amputation reality in the UK population, some NHS podiatry services have restricted access for people without diabetes, which subsequently increases inequality for people without diabetes who may well have a chronic-limb threat, and need quality foot wound management, clinical triage and timely vascular access (McCulloch et al, 2018).

Despite the initiatives described above and well-established recommendations to assess for PAD using ABPI, TBPI or toe pressures in people with foot ulcers (NICE 2012, Conte et al, 2019, Hinchliffe et al, 2020), a recent thematic analysis of trends in people who have had amputations associated with diabetes-related foot ulcers resulting in litigation and negligence claims highlights some disappointing trends. The report identified that in people who had initiated clinical negligence claims, evidence of vascular assessments and appropriate referrals showed them to be brief, potentially inaccurate and delayed (Mottolini, 2022). Unacceptably, of those people reviewed who had undergone amputations, only 51% had any evidence of foot pulse assessment with a DFU and only

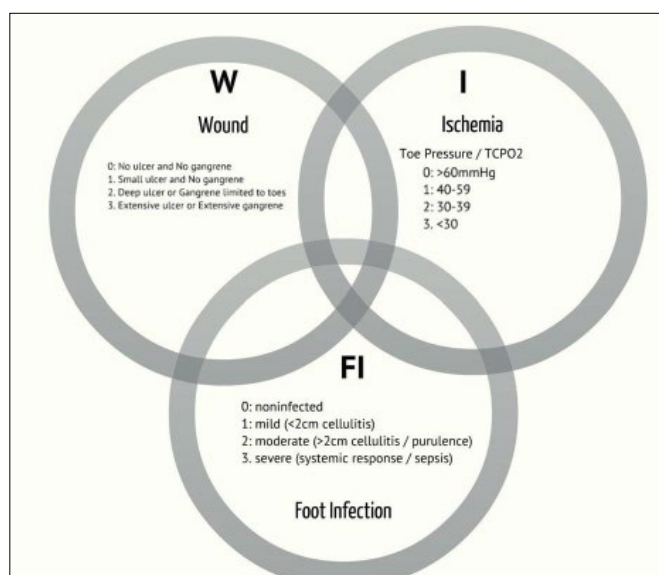


Figure 1. Wifl: Presence and severity of Wound + Ischaemia + Foot Infection (Mills et al, 2014).

1% had been assessed prior to amputation with toe pressures. This report follows on from a national survey of UK podiatrists (Tehan et al, 2019) that showed amongst respondents, only 34% performed ABPI as part of their vascular assessment process and only 12% performed toe pressure assessment. A common reason cited for not doing these basic, well-evidenced vascular assessments was perceived time constraints; this is despite an ABPI taking just 10–15 minutes to complete or a toe pressure in a limb of concern taking 5 minutes. This is compared to an individual with a chronic foot ulcer being seen twice weekly where, after 12 weeks, as much as 720 minutes or more of healthcare professional time can easily be accrued.

Is it really justifiable in 2022 for any foot ulcer provider service, to spend less than 15 of those 720 minutes is spent conducting evidence and consensus recommended first-line vascular assessments that will help determine the potential to heal or the need for revascularisation? This is certainly food for thought but then it must be remembered that many clinicians are struggling to see highly complex patients within an appropriate timeframe. The will is there to conduct ABPIs/toe pressures but a clinical framework, investment in basic diagnostic kit and capability training to build skills confidence, are required to make the minimum recommended assessment a reality.

Solutions may be for clinical staff routinely working with high-risk lower limbs to take the case to their

managers that investment in kits and training:

1. will incorporate improved safety, as well as risk reduction into lower-limb clinical services
2. will be easy to implement by learning from teams that do it already
3. will help avoid costly clinical negligence claims, such as those partly attributed to lack of, inaccurate or inadequate vascular assessment, in the NHS Resolution Report (Mottolini, 2022).
4. will help triage people for wound treatment, vascular referral or urgent admission, when combined with the clinical presentation.

Wifl vs SINBAD, its not an either/or!

One of the main discussions that has perhaps blocked the broader roll-out of Wifl across all lower-limb teams, has been confusion about the use of SINBAD and Wifl as wound classification systems. Understandably, busy clinicians do not want to be duplicating or complicating their clinical data collection. SINBAD is used for the national diabetic foot ulcer audit and it is important that as many clinical teams around the UK as possible submit ongoing data to this vital DFU resource (Ince et al, 2008). The vascular assessment component, however, relies on foot pulse palpation, which is regarded as an unreliable and inaccurate indicator in isolation for the identification and triage of PAD (Linden et al, 2001) and potentially CLTI in people with foot ulcers. This issue has been recently highlighted in a thematic analysis of amputations (Mottolini, 2022).

Wifl is focused on the identification of severity in all foot wounds looking at the deadly triad of Wound, Ischaemia and Infection (Mills et al, 2014). It requires foot ulcer assessing clinicians to include toe or ankle systolic pressures as part of their baseline assessment, to help objectively identify ischaemia and inform the need for emergency, urgent or non-urgent access to a vascular team for limb-saving vascular interventions.

Simply put, SINBAD is important for building a national dataset on people with diabetes and foot ulcers only. Wifl is important for Friday afternoon phone calls to the Vascular Registrar on-call, to help determine the need (or not) for admission of anyone with a potentially limb-threatening foot ulcer. Wifl also encourages clinicians and clinical teams to ensure their vascular assessments are in line with all current national and international guideline

recommendations (NICE, 2012; 2015; Conte et al 2019; Hinchliffe et al, 2019).

Wifl and the national wound care strategy

As well as podiatrists, it is vital that nurses are engaged in implementing best vascular assessment in wound assessment, review and management.

The National Wound Care Strategy programme is working to address the challenge by developing multi-professional, free online educational resources to develop skills and knowledge on vascular assessment of the lower limb.

The programme has developed referral forms to ensure timely referrals into vascular services. These align to the global vascular guidelines (Conte et al, 2022) and use of Wifl, as a tool to aid clinical decision-making and to standardise approaches by multi-professionals.

The consultation feedback from surgeons, community nurses, general practitioners and podiatrists demonstrates how closer collaboration across the healthcare system can improve patient care. Improving communication by improving the quality of referrals, and linking to foot protection teams and MDTs will support better working relationships, and shared care between health and care professionals working in different services and thus improve the patient experience and optimise the best use of scarce NHS resources.

A consensus on encouraging more Wifl use between podiatry and vascular teams

There is still much work to be done to make the clinical diagnosis of PAD a routine component of the assessment of all people presenting with lower-limb wounds. This would then enable safe, effective treatment of ulceration and timely identification of CLTI, to enable appropriate non-urgent, urgent or emergency triage to vascular teams of those with varying presence and severities of Wifl.

It is with this in mind that the Executive Committee of Foot in Diabetes UK (FDUK) has agreed on a consensus position statement supporting the recent Vascular Society of Great Britain and Ireland (VSGBI) Quality Improvement Framework for PAD (VSGBI, 2022). FDUK's position statement reads as follows: "Foot in Diabetes UK welcomes and endorses the 2022 Quality Improvement Framework and

Clinical Care Pathway for Peripheral Arterial Disease, published by the VSGBI. Through our national clinician and clinical stakeholder communication networks in the UK, we will support all those who are involved in foot and lower-limb risk or wound management and amputation prevention, to develop awareness of the PAD QIF and incorporate core aspects of the framework into clinical processes and practice. This will mean us including CPD updates on the QIF into our national conferences and educational events, website resources and strategic priorities. We will promote and support clinicians and service leaders in any clinical setting to become familiar with and use the term chronic limb-threatening ischaemia (CLTI) and the WIfI classification system, as a foot wound assessment, triage and communication tool. In particular, where chronic limb-threatening ischaemia is suspected, to support urgent liaison and timely referrals with local Vascular Teams with an overarching goal to protect more lives and limbs of people living with diabetes and those with high-risk lower limbs.”

How is your WIfI in 2022?

WIfI in whatever context the term is interpreted, is all about facilitating effective, multidisciplinary communication, thus enhancing the speed and transfer of appropriate data. This is essential when assessing, triaging, treating and reviewing people with foot ulcers, with and without diabetes, in a variety of clinical settings. The time is now right to aim for universal adoption of WIfI, throughout the UK, in foot ulcer management. Adopting an evidence-based intervention will ‘oil the cogs’ of various timely, effective medical, surgical and health choice interventions, in the quest to save more lives and limbs.

So ... how is your WIfI right now — locally, regionally and nationally? ■

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