Is there a role for a Vascular Specialist Podiatrist in the diabetes MDfT / FPT?

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North Manchester Leg Circulation Service
Pennine Acute Hospitals Trust
There’s an elephant in the room /clinic!

The modifiable risks associated with diabetic foot ulcers

1. Death
2. CV events
3. Amputation
High risk of .... er?

Minor cuts and blisters
If you check your feet and discover any breaks in the skin, minor cuts or blisters, cover the area with a sterile dressing. Do not burst blisters. Contact your podiatry department or GP immediately (contact numbers are over the page). If these people are not available and there is no sign of healing after one day, go to your local accident and emergency department.

Hard skin and corns
Do not attempt to remove hard skin or corns yourself. Your podiatrist will provide treatment and advice where necessary.

Over-the-counter corn remedies
Do not use over-the-counter corn remedies. They are not recommended for anyone with diabetes as they can damage the skin and create ulcers.

Avoid high or low temperatures
If your feet are cold, wear socks. Never sit with your feet in front of the fire to warm them up. Always remove hot water bottles or heating pads from your bed before getting in.

A history of ulcers
If you have had an ulcer before, or an amputation, you are at high risk of developing more ulcers. If you look after your feet carefully, with the help of a podiatrist, you will reduce the risk of more problems.

If you discover any problems with your feet, contact your podiatry department or GP immediately. If they are not available, go to your nearest accident and emergency department. Remember, any delay in getting advice or treatment when you have a problem can lead to serious problems.

Individual advice

Local contact numbers
Podiatry department:

GP clinic:
DFU – more deaths than cancer?

Figure 1. Five-year mortality (%). Perhaps now is the time to change our discussion with health-care administrators, policy makers and especially ourselves. The disease state that many of us treat routinely is, quite literally, killing our patients at a rate comparable to cancer. Addressing this issue aggressively may alter this and make a difference for millions of people worldwide.

Armstrong et al, 2007
Current PAD frameworks in NHS are often well intentioned but weak leading to ‘under diagnosis and under treatment’...resulting in ‘preventable mortality & morbidity’

(Belch et al, 2007)
Plenty of PAD guidance and incentives…

- 2000 TASC guidelines on PAD
- 2006 SIGN Diagnosis and management of PAD
- 2008 Cochrane Cilostazol
- 2008 Cochrane Exercise for intermittent claudication
- 2009 Primary care service framework: PAD
- 2011 NICE TA 223 Naftidrofuryl
- 2012 QOF indicators for PAD
- 2012 NICE Clinical Guideline on PAD CG147

PLUS, all the diabetic foot guidance …

… but usually no local PAD clinical leadership or strategy
What must a multi-disciplinary diabetes foot care team do?

- Prompt referral of patients who may benefit from revascularisation
- Wound management (dressings, debridement, infection)
- Consider total contact casting
- *Optimise blood glucose and CVD risks*
- Manage patient as high risk when healed

NICE, 2004
Perceptions of PAD / DFU

Limb vs Life
Are we too foot / ulcer focussed…

5 year mortality and amputation outcomes

PAD: 50% M 5% A (Burns 2003)
DFU: 45-55% M 11-29% A (Moulik 2003)
Clinician priorities

• Treating foot problems

• Healing foot ulcers

• Modifiable vascular risks??
Benefits of Tight BP and Tight Glucose Control UKPDS

*P<0.02, tight BP control (achieved BP 144/82 mm Hg) vs. less tight control (achieved BP 154/87 mm Hg).
†P<0.03, intensive glucose control (achieved HbA₁c 7.0%) vs. less intensive control (achieved HbA₁c 7.9%).


Slide source: M Young, DFJ Conf 2013
Improved survival with risk factor modification

CVD Dashboard

High blood pressure
Suboptimal cholesterol
Poor glycaemic control
Smoking
Lack of cv exercise
BMI > 30

“If you run your car on poor oil, what will happen eventually…?”
Talking about the limb?

Will I lose my leg like that bloke down the road?

Can I walk the dog or do the shopping or go swimming still with this foot ulcer?

No, you need to rest until it heals…

…or until you get depressed, smoke more, put weight on, send your blood pressure and lipids up, then die of a heart attack or stroke.
Talk about life?

Will I lose my leg like that bloke down the road?

Can I walk the dog or do the shopping or go swimming still with this foot ulcer?

Interesting question! Would you like to know why this ulcer circulation pain is an important problem? The big picture? What it will mean for you now and in 5 years time? What do you know about your vascular risks?
All Rise!

Remain standing if:

• You provide treatment interventions to the foot
• You assess the patient before you treat, by:
  • Asking about symptoms of claudication / rest pain
  • Checking foot pulses (and if non palpable...)
  • Listening with doppler (and if monophasic ...)
  • Performing an ABPI
  • Checking popliteal and femoral pulses
• Document all of the above in your clinical notes

(NICE 2012)
PAD Quality Statements  (NICE 2014)

1. People who have symptoms of, or who are at risk of developing, peripheral arterial disease (PAD) are offered a clinical assessment and ankle brachial pressure index (ABPI) measurement.

2. People with PAD are offered an assessment for cardiovascular comorbidities and modifiable risk factors.

3. People with intermittent claudication are offered a supervised exercise programme.

4. People with PAD being considered for revascularisation who need further imaging after a duplex ultrasound are offered magnetic resonance angiography (MRA).

5. People with intermittent claudication are offered angioplasty only when imaging has confirmed it is appropriate, after advice on the benefits of modifying risk factors has been given and after a supervised exercise programme has not improved symptoms.
ABPI and ankle pressures

To ABPI or not to ABPI, that is the question …?

Answer: Yes!

CV risk indicator
Fowkes et al, JAMA, 2008
Hanssen et al, Diab Care, 2012

PAD diagnosis
Dachun et al, Vasc Med, 2010

Limb viability & DFU healing
Ouriel & Zarins, Arch Surg, 1982
Apelqvist et al, Diab Care, 1989
Morbach et al, Diab Care, 2012
What might a coroner refer to?

1. Clinical notes
2. Best practice guidance
3. Expert opinion
3 minute task!

<table>
<thead>
<tr>
<th>Risk Factors for Circulation Damage</th>
<th>You (tick)</th>
<th>Interested in reducing risk (Y/N)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Smoking</strong></td>
<td></td>
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<tr>
<td>Any amount of tobacco / nicotine</td>
<td></td>
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<tr>
<td><strong>Raised blood lipids (cholesterol)</strong></td>
<td></td>
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</tr>
<tr>
<td>Total is greater than 4 or LDL is greater than 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Raised blood pressure</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resting blood pressure is greater than 140/90</td>
<td></td>
<td></td>
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<td><strong>Raised blood glucose (with diabetes)</strong></td>
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</tr>
<tr>
<td>HbA1c is greater than 7.0 or 53 (new measure)</td>
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<td></td>
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<tr>
<td><strong>Lack of cardiovascular (heart) exercise</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 2.5 hours per week of light exercise</td>
<td></td>
<td></td>
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<tr>
<td><strong>Excessive weight</strong></td>
<td></td>
<td></td>
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<tr>
<td>Body mass index is greater than 30</td>
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1. In pairs, ask about each others modifiable vascular risks (“don’t know” = risk)
2. Score each vascular risk as 1 point. Add up your own total
Could vascular specialist podiatrists play a leading role?
Podiatrists and PAD

• Profession is 101 years old, 10000 + podiatrists in UK
• No clear strategy on PAD … yet
• All podiatrists are trained to clinically assess their patients and the limb before treating foot problems
• All of us check foot pulses on all our patients, prior to treatment… at least periodically

• But, we don’t always ensure early diagnosis, referral and best treatment of PAD or CLI…

Why not? How do we change that?
The role of a vascular specialist podiatrist
The North Manchester Leg Circulation Service
Peripheral Arterial Disease (PAD)

Our Mission Statement

Our aim is to identify, diagnose and support people with peripheral arterial disease (poor circulation) – improving health and reducing preventable heart attacks, strokes and leg amputations.

Our service will:

- Raise awareness and encourage early referral of peripheral arterial disease
- Offer people an appointment within 1 month of referral, with a choice of 5 locations
- Perform non-invasive peripheral arterial assessments and diagnosis
- Provide education on cardiovascular risks and healthy options
- Promote best medical therapy in partnership with General Practices
- Negotiate key healthy lifestyle changes – smoking, exercise and well-being
- Refer people with severe or deteriorating circulation problems to Vascular Consultants
The NICE PAD consultation

- Medical, social, symptoms
- Pulses – foot to femoral
- Doppler analysis, ABPIs

- Diagnosis and severity
- Risks and implications explained
- Treatment plan negotiated
  - Medicine review
  - Lifestyle change support
  - Referral to surgeon if severe

- Report letter to GP and patient
- Review in 3 – 12 months
“What are my risks?”

Following the assessment, we found that you have:

- Mild peripheral arterial disease – evidence of a reduction in blood flow to your legs and feet
- Moderate peripheral arterial disease – significantly reduced blood flow to your legs and feet
- Severe peripheral arterial disease – severely reduced blood flow to your legs and feet

Peripheral arterial disease, with or without symptoms, increases the risk of a heart attack, stroke and more rarely, leg amputation. Importantly, it can be successfully treated!

What can be done to prevent worsening?

1. If you smoke now, the most important aim is to quit.
2. Walking or exercising regularly (1½ hour, 3 – 5 times per week) into any leg discomfort, stopping if it becomes severe.
3. Reviewing medicines with your GP, focussing on medicines to help prevent heart attacks, strokes and worsening leg symptoms.
“What are my risks and what can I do to reduce them?”

<table>
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<th>Your Current Circulation Risks</th>
<th>Risk</th>
<th>Interested in reducing risk</th>
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<td>Smoking Any amount of tobacco / nicotine</td>
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How are we doing?

Approx 22% of people diagnosed with PAD were referred to our vascular surgeons.
Support for service

“From a commissioners perspective it provides an easily accessible and cost-effective alternative to a traditional out-patient appointment and highlights the skills available within the clinical community”.

Dr Liam McGrogan, GP North Manchester

“Primarily patients with peripheral arterial disease can be assessed and treated effectively in the community by specialist staff who work in the Leg Circulation Service.”

Vascular Team, North Manchester

Mr G Williams, Consultant Vascular Surgeon
What are the cost benefits?  
(per 1000 PAD referrals)

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<th>Hospital outpatients</th>
<th>Community PAD service</th>
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<td><strong>Cost per referral:</strong></td>
<td>£246</td>
<td>£110</td>
</tr>
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<td><strong>Cost x 1000 referrals:</strong></td>
<td>£246,000</td>
<td>£110,000</td>
</tr>
<tr>
<td>25% ref LCS - hospital:</td>
<td></td>
<td>+ £61,500</td>
</tr>
<tr>
<td><strong>Total cost of referring:</strong></td>
<td>£246,000</td>
<td>£171,500</td>
</tr>
<tr>
<td><strong>Total Cost saving:</strong></td>
<td></td>
<td>£74,500 per 1000 PAD referrals</td>
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This equals a 30% cost saving on existing PAD referrals
Cost effectiveness

The following two examples illustrate the savings that can be made by offering a lower limb vascular assessment/triage service in the community:

Tameside and Glossop PCT, 2005
Lower limb vascular triage
76% of patients seen in community at a cost saving of £65,000
Led to reduced waiting times and patient choice.

Cardiff and Vale UHB
33% inappropriate referrals:
Initial saving of £85,932
Reduced waiting, increased throughput, use of screeners

SOCAP, 2010
Patient Story

Nervous patient, worsening chronic leg pains
• Smoking, not on any vascular medicines, becoming inactive, low mood, angry
• Reluctantly took on board the diagnosis of PAD, treatment options, potential outcomes and a plan
• 6 months later, he returned to us with worsening leg pains, had not quit smoking and not seen his GP for a medicine review

A ‘heart-sink’ patient, likely to deteriorate down a slippery slope of severe pain, frequent hospital visits, foot ulcers, gangrene, amputation and or early avoidable death

Clear conversation then had about high and increasing risks to life and limb, options to reduce the risk, support available, emphasis on need for urgent change around smoking, walking exercise and GP review for vascular medicines

At his latest 6 month review he…
• Has seen his GP and is on aspirin and a statin
• Has quit smoking after 50+ years
• Increased his walking limit from 50 to 400+ yards
• Is happy & well and does not want a surgical opinion
What about the big picture?
Peripheral arterial disease

‘Target PAD’ lobby group:

- PAD QOF indicators
- NICE PAD guidelines
- NICE PAD Quality Standards 2014
- Vascular Parliamentary Group
Vascular reconfiguration

‘Hub & Spoke’

• Impact on diabetic foot
• Impact on PAD / CLI

• Opportunity to improve

• Chance to get it right

Link vascular & diabetic foot MDfT, with FPTs
Did you know...

If you have **diabetes**, and:
- reduced blood flow to your legs, or
- an ulcer on your foot

... it can be as serious as having cancer!

Your risks of early death or foot amputation are raised

But, proper treatment and key lifestyle changes can dramatically help to reduce these risks

Ask your GP, podiatrist or diabetes / vascular team for more information or support

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Endorsement for poster campaign being sought from: Foot in Diabetes UK, The Circulation Foundation, Society of Chiropodists and Podiatrists, Diabetes UK
CV medicines and supervised exercise
For all with PAD, DFUs, Charcot and amp?

• Referred by Foot Clinics
• Chair based - DFU / amp
• 90 minutes per week
• 12 week initially
• Personal targets
• Locally available

How?? Access to existing cardiac rehabilitation services!
Proposed vision: Podiatry and PAD

‘Podiatry will play a leading role in the early detection, diagnosis and best treatment of people with lower limb peripheral arterial disease, across the UK’
Competencies for vascular specialist podiatrists

1. Podiatry Competency Framework published

2. Competency ladder – from generalist to advanced / Consultant Podiatrist

3. Specific competency definition for PVD
Proposed route: vascular specialist

1. PVD Competency dimension – set goals
2. Acquire vascular mentor (e.g. surgeon)
3. Clinical module (e.g. Vascular, Edge Hill Uni)
4. 60 – 100 hours in Vascular Clinics
5. Sign off from mentor & certificate from COP
6. Demonstrate ongoing vascular CPD
Vascular Specialist Podiatrists ‘PAD Champions’

- Needed by PAD and diabetic foot disease
- Podiatrists are a natural source
- Specialist Podiatrist PAD services exist
- Vascular specialist podiatrists have a key role in helping to reduce PAD related mortality, morbidity and limb loss

1 PAD Champion in every MDT / FPT!

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