



The COLLEGE  
of PODIATRY

# Community triage for lower limb vascular concerns: reducing the burden on hospitals

# Sharing good practice: What are 'Proven Quality and Productivity' case studies?

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The NICE Quality and Productivity collection provides users with practical case studies that address the quality and productivity challenge in health and social care. All examples submitted are evaluated by NICE. This evaluation is based on the degree to which the initiative meets the Quality and Productivity criteria: savings, quality, evidence and implementability. The assessment of the degree to which this particular case study meets the criteria is represented in the summary graphic below.

Proven Quality and Productivity examples are case studies that show evidence of implementation and can demonstrate efficiency savings and improvements in quality.

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## Details of initiative

### Purpose

To reduce hospital referrals for lower limb vascular conditions by providing podiatry-led assessments in the community.

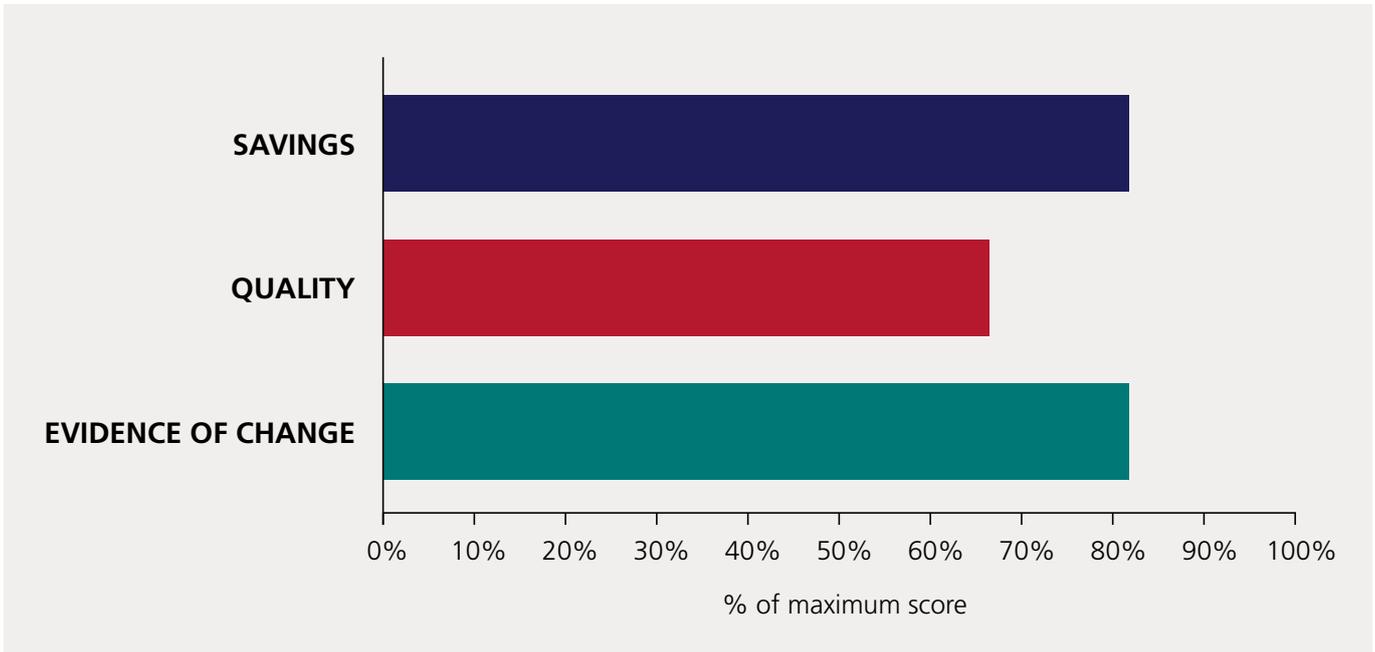
### Description (including scope)

The Salford lower limb vascular assessment and triage service provides assessments, diagnosis and clinical management plans for patients with suspected non-acute peripheral arterial disease. Clinics are run 5 days a week with weekly evening clinics and monthly Saturday slots. Referrals are made by GPs using an e-referral system, and may also come from general podiatry, diabetes specialist nurses, district nurses, physiotherapy and the tissue viability service.

The service operates out of 3 gateway community centres, providing care closer to home. The service has improved the patient’s journey as previously all patients

with suspected non-acute peripheral arterial disease would be referred to the hospital vascular surgery team where only 20% would require onward vascular interventions. GPs now refer all patients with suspected non-acute peripheral arterial disease to the community vascular service, who are able to make direct referrals onto the vascular surgeons if appropriate. Referrals to the hospital team are more appropriate and hospital vascular appointments are freed up for more serious cases.

The service is podiatry-led, working with patients to address their individual cardiovascular limb risks and to develop an agreed individual clinical management plan. These may include discussion regarding preventing cardiovascular risks, initiating best medical therapy, referral to a community structured exercise programme and a support scheme run by the local rehabilitation team, or the vascular surgery team at Central Manchester Foundation Trust Hospital if appropriate.



ESTIMATED TIME TO IMPLEMENT (MONTHS)		✓		
	0-3	4-12	13-16	>36

## Savings delivered

### Amount of savings delivered

The CCG made net annual savings of £62,700 in 2015/16 for a population of 239,000; equivalent to £26,200 per 100,000 people.

The savings were from avoiding 489 unnecessary outpatient referrals (281 vascular services, 208 diabetic foot screening) costing £234 each. The running cost of the service is £51,733, which funds a Band 7 podiatrist independent prescriber and a part-time Band 2 administrative assistant.

### Type of saving

Cash savings for commissioners in acute care. Improved productivity in secondary care as a result of reduced referrals from GPs, but no cash savings.

### Any costs required to achieve the savings

There are no non-recurrent costs. Recurrent staff costs of £51,733 have been included in the savings above.

### Programme budget

Problems of circulation

### Supporting evidence

Activity data for the service has been provided, demonstrating the number of unnecessary outpatient referrals avoided:

appointments available: 856

appointments booked: 804 (94% of capacity)

patients seen: 691 (81% of capacity and 86% of patients booked)

vascular services referrals avoided: 281 (35% of patients booked)

diabetic foot screen referrals avoided: 208 (26% of patients booked)

did not attend: 72 (9% of appointments booked)

cancelled by service: 0 (0%)

cancelled by patient: 41 (5% of appointments booked).

The source of referral for the 691 patients seen was:

podiatry: 156 (23%)

foot screen: 219 (32%)

general practice: 299 (43%)

other 17: (2%)

## Quality outcomes delivered

### Impact on quality of care or population health

The initiative focuses on improving access to a service in a less expensive location, rather than changing treatment. Nevertheless, outcomes may be improved due to faster diagnosis and management of lower limb vascular conditions. Additionally in 1–2% of patients other vascular conditions are detected, such as irregular heartbeat, aneurysm or erectile dysfunction. These problems would not have been diagnosed as quickly under the old service.

Referrals to the service are made by GPs, nurses and allied healthcare professionals. If they suspect that a patient may have severe limb ischaemia they are referred straight to the hospital vascular team. But if they suspect peripheral arterial disease based on non-palpable foot pulses, cardiovascular risks, foot or leg symptoms, they are referred to the community vascular assessment service. Patients are then triaged based on the severity of their symptoms and whether they are deteriorating.

Patients with the following symptoms are referred for a surgical opinion:

worsening/severe/critical peripheral arterial disease

severe symptoms affecting lifestyle

Patients whose symptoms are less severe agree an individual management plan covering cardiovascular risk factors and supervised exercise, along with drug therapy, and a discussion of surgical options if appropriate.

### Impact on patients, people who use services and/or population safety

There is evidence that safety is improved to a slight extent due to faster diagnosis of life-threatening conditions in a very small number of cases (6 patients with suspected aneurysms between May 2015 and April 2016, of whom 1 was sent for emergency life-saving surgery).

### Impact on patients, people who use services, carers, public and/or population experience

The patient experience improves significantly because care is given quicker and closer to home. Evening and weekend appointments are available and domiciliary visits have been made to people who were unable to attend the clinic. A patient satisfaction survey demonstrates that the vast majority of people report overall satisfaction with all elements of the service. There have been no complaints.

## Supporting evidence

The outcomes of clinical assessment were:

diagnosed with peripheral arterial disease: 436 (63% of patients seen)

symptoms of intermittent claudication: 183 (42% of patients with peripheral arterial disease)

critical limb ischaemia: 2 (0.3 %)

onward referrals made to vascular services: 42 (6% of patients seen); of these, 33 were referred to Central Manchester Foundation Trust, 9 to other centres.

## Evidence of effectiveness

### Evidence base for case study

The 5 year forward view (NHS England 2014) recommends providing care closer to home where possible. Structured exercise is also recommended by NICE's guideline on managing peripheral arterial disease.

### Evidence of deliverables from implementation

Service activity data and patient diagnosis data demonstrate that 489 unnecessary outpatient referrals were avoided and that serious health conditions, such as aneurysm and irregular heartbeat, were diagnosed sooner.

### Where implemented

Salford Royal Foundation Trust.

### Degree to which the actual benefits matched

The target for onward referrals was less than 20%, therefore the benefits were greater than expected.

### Assumptions

If initiative has been replicated how frequently/widely has it been replicated

Nationally there is 1 other similar service that Salford Royal Foundation Trust are aware of; the Manchester Leg Circulation Service (Pennine Acute Hospitals Trust).

### Supporting evidence

Service activity data and patient diagnosis data have been provided, as described in 'Savings delivered' and 'Quality outcomes delivered'.

## Details of implementation

### Implementation details

Before this service was commissioned, people in Salford with lower limb vascular concerns had to travel to Central Manchester Foundation Trust for an assessment from the vascular surgery team. The vast majority did not need surgery and were discharged to primary care with a management plan. GPs were paying a secondary care outpatient tariff for patients who did not need a secondary care service.

The solution was to establish a primary care lower limb vascular assessment service in Salford. Patient with symptoms of intermittent claudication would be referred on to the existing exercise programme with the cardiac rehabilitation team.

A business case was developed to provide assessment and support for patients with symptomatic peripheral arterial disease for 2 hours a week over a 3-month period. This funded a full-time Band 7 podiatrist and a 0.5 whole time equivalent Band 2 administration assistant. The podiatrist's work plan includes 7 clinical sessions seeing a total of 21 patients, 2 training sessions and 1 admin session per week.

The assessment service operates in local health centres to make it accessible to the local population, and clinics are run 5 days a week with some evening and Saturday slots. Referrals are made by GPs using Choose and Book, and may also come from the general podiatry and tissue viability service. Patients receive a patient information leaflet explaining about the service and what to expect from the appointment.

Each patient has a full non-invasive vascular assessment which includes palpation of pedal, popliteal and femoral pulses, a Doppler scan, an Ankle Brachial Pressure Index (ABPI) at rest and after exercise if indicated, and opportunistic palpation of abdominal aorta. This takes around 45 minutes. After the assessment a tailored management plan is agreed, including recommendations to GPs for drug therapy (such as antihypertensives, lipid regulator or antiplatelet therapy), and referrals to smoking cessation and structured exercise therapy as necessary.

The structured exercise programme was developed by liaising with the local cardiac rehabilitation team to include claudicants into an existing exercise programme for cardiac patients, thus using the skills, manpower and facilities already in place.

As well as providing physical support, the cardiac rehabilitation team helps patients understand and self-manage their condition, lifestyle and medications. It supports the patients' social, physical and mental wellbeing, and provides advice and support in relation to the condition, such as associated risk factors, lifestyle modifications, medication, physical activity and emotional responses. Individual lifestyle advice is also given.

The podiatrist refers patients directly to vascular surgery if appropriate.

The podiatrist attend regular meetings with vascular consultants to discuss case histories. This supports the clinicians and provides valuable professional development. It allows a multidisciplinary team approach to review complex cases. This has led to a reduction in the number of inappropriate referrals to vascular services.

The service was set up with the aim of reducing secondary care referrals by approximately 80% (based on similar triage services elsewhere and the current percentage of patients who remain under the care of Central Manchester Foundation Trust consultants after their initial assessment). The 20% who do need secondary care are referred on to Central Manchester Foundation Trust or other local vascular services after being seen by the local assessment service.

The service provides net savings and benefits patients, who receive a more local and accessible service. Onward referrals to secondary care for surgical intervention are proving a more appropriate and targeted use of resources.

### Time taken to implement

Can be achieved in less than 1 year, provided there are premises available for the service to operate out of and a cardiac rehabilitation team already in place to provide structured exercise and support. If these are not in place development of the service may take 1-3 years.

### Ease of implementation

Involves a change across primary and secondary care, needing the support of GPs and a local cardiac rehabilitation team.

### Level of support and commitment

Likely to achieve good buy-in from key influencers.

### Barriers to implementation

Uptake may be low if GPs, nurses and allied healthcare professionals do not know about the service and how to refer people to it. To promote the service, the podiatrist

visited GPs, physiotherapists and other podiatrists. Leaflets and posters were also distributed to Salford practices.

### Risks

To minimise any risks to patient safety, exclusion criteria for the structured exercise sessions were developed:

asymptomatic patients (no symptoms of intermittent claudication)

recent vascular surgery intervention

unstable angina

uncontrolled cardiac arrhythmias

critical limb ischaemia

de-compensated heart failure

severe or symptomatic valvular heart disease.

### Supporting evidence

A business case and an account of implementation were provided.

## Further evidence

### Dependencies

The service needs premises in the community. In this case there was capacity at 3 gateway community health centres.

The service makes use of an existing cardiac rehabilitation team to provide structured exercise and offer advice on lifestyle changes, medication and psychological support.

## Contacts and resources

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### References:

1. National Institute for Health and Care Excellence (2012) Peripheral arterial disease: diagnosis and management
2. NHS England (2014) Five Year Forward View





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