Centre for Sustainable Delivery

NHS SCOTLAND

Modernising Patient Pathways Programme:

Chronic Limb Threatening Ischaemia National Pathway

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Background

This document outlines a national model for the assessment and management of Chronic Limb Threatening Ischaemia (CLTI). It is closely based on the relevant section of the Vascular Society document *A Best Practice Clinical Care Pathway for Peripheral Arterial Disease*.

The principle of timely access to expert Vascular opinion with appropriate diagnostics and intervention is key to offering a safe and effective pathway for the management of patients with limb threatening ischaemia.

The Vascular GIRFT report highlighted that the delivery of revascularisation for CLTI across the UK was variable, with unacceptable delays in management pathways and this has led to significant differences in length of hospital stay and patient outcomes.

As set out in the Vascular Society document *A Best Practice Clinical Care Pathway for Peripheral Arterial Disease*, evidence-based management involves early and appropriate revascularisation to prevent limb loss; delay is best avoided by well organised networks with clear referral pathways.

Assessment of patients requires a multi-professional team, the lower limb Multi-Disciplinary Team, available 24/7. In order to deliver such care an adequate workforce with timely access to the appropriate facilities needs to be in place.

Chronic Limb Threatening Ischaemia Definition:

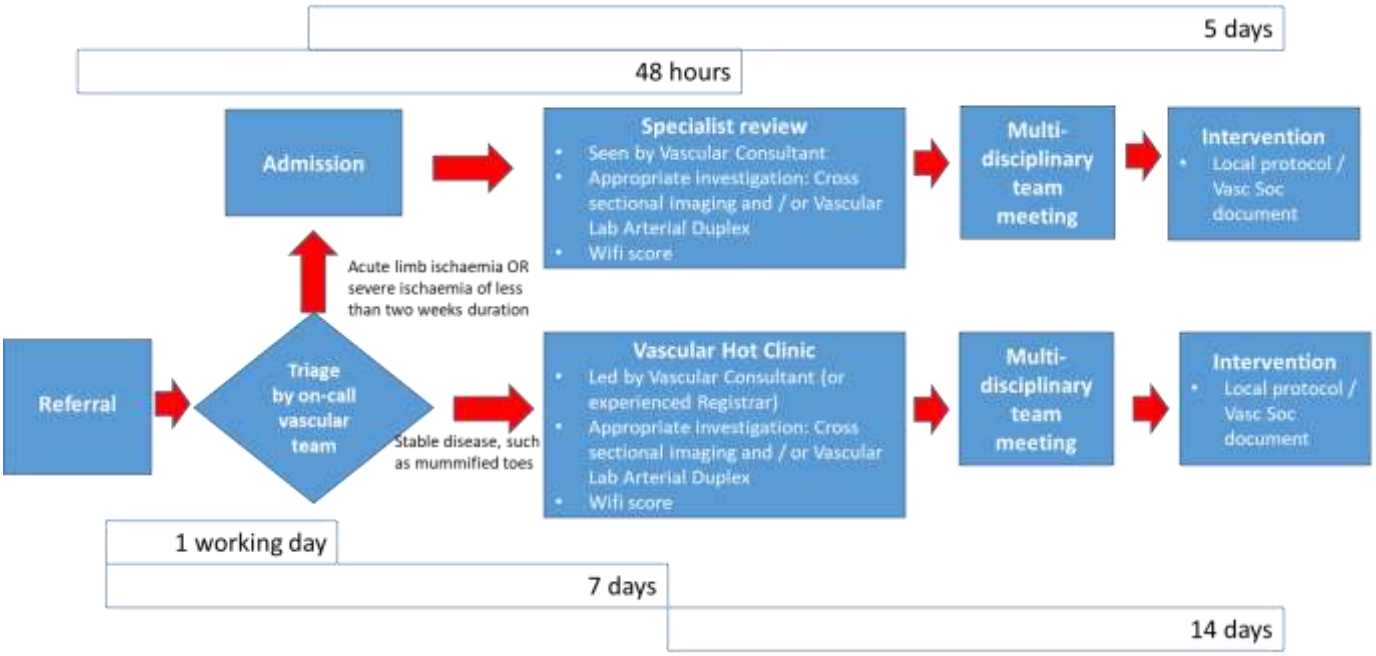
Chronic Limb Threatening Ischaemia is the advanced stage of Peripheral Arterial Disease (PAD) where the blood supply to the foot is insufficient for the needs of the tissues. Without adequate treatment there is a significant risk of major limb loss.

- Persistently recurring rest pain requiring analgesia for more than 2 weeks OR
- ulceration OR
- gangrene of the foot or toes

AND

- ankle pressure < 50mmHg AND / OR
- toe pressure <30mmHg.'

Pathway recommendations



Referral and triage

Patients will be referred as emergencies from GP, A&E or other services including Community Services such as podiatry. Triage will be completed by a senior member of the vascular team within 1 working day (or 1 day where 24/7 cover available).

- Acute limb ischaemia patients, or those with severe ischaemia of less than two weeks duration, require immediate referral to vascular surgery

Admitted Pathway

Patients with severe limb ischaemia or foot sepsis will be admitted for urgent investigation and treatment (Admitted Pathway). Such patients should be seen by a Vascular consultant, assessed and imaged within 48 hours. Their condition should be optimised and discussed at the MDT, leading to definitive intervention within 5 days of admission.

Adequate facilities for open surgery, endovascular intervention or a hybrid procedure should be available for this within the appropriate timeframe.

Outcomes should be entered into the National Vascular Registry for on-going audit and quality control. (MDT discussion *and* intervention and MDT within 5 days will be challenging where units schedule MDT meetings on a weekly basis and may necessitate some MDT discussion outside the formal meeting - see below).

Vascular Hot Clinic

Those with stable CTLI do not require immediate admission and can be seen in a Vascular Hot Clinic. Availability of adequate slots in such a clinic within one week of referral will give a viable alternative to admitting patients with stable disease such as mummified toes.

The clinic will be led by a Consultant Vascular Surgeon (ideally with support from a Vascular Clinical Nurse Specialist) and access to appropriate and timely investigations should be available. Depending on local circumstance this could include cross-sectional imaging and / or vascular lab investigations such as arterial duplex. In a vascular network, such clinics could run in both the hub and spoke sites.

Cases should be discussed at the MDT and appropriate vascular intervention completed within 14 days from the clinic date. It should be possible to admit many of these patients on the day of surgery for a planned procedure on an elective list. Open surgical revascularisation and those involving a hybrid procedure should be performed in the vascular hub, but, in certain circumstances, it may be possible to deliver endovascular intervention in the spoke site.

Patients who require an open or hybrid procedure should be reviewed by a Consultant Anaesthetist prior to their intervention and outcomes should be entered into the National Vascular Registry for on-going audit and quality control. Robust pathway coordination will be required to ensure patients' care is progressed in a timely way, particularly if across more than one site.

Multi-disciplinary team meeting

There should be a weekly lower limb MDT meeting which should include at least 2 vascular surgeons, 2 interventional radiologists and a vascular anaesthetist. Other members may involve vascular nurse specialists, clinical vascular scientists and a consultant in care of the elderly. Core members should have attendance recognised in their job plans and there should be equal access for clinicians working at the arterial centre and those working in spoke sites. Decisions should be documented in the patient's notes. MDT working involves both formal meetings and 24/7 professional working between MDT members and treatment should not be delayed simply for the formal MDT meeting. In such cases it should be clearly documented in the patient notes that an MDT discussion has taken place and the professionals involved.

Full details of the MDT are available in the Vascular Society Best Practice document.

Intervention

In order to manage these patients effectively there is a requirement for sufficient vascular operating resource, ideally in a hybrid theatre. Most open or hybrid cases should be performed on a scheduled list in a properly staffed vascular theatre. In an emergency, the theatre staff should be familiar with vascular surgery, including endovascular intervention. In addition to adequate operating lists there must be sufficient interventional radiology provision for endovascular intervention with appropriate personal and Interventional Radiology room time.

Monitoring and Clinical Governance

To support implementation and ongoing clinical governance there is an expectation that all units will submit relevant data in relation to Chronic Limb Threatening Ischaemia to the National Vascular Registry.

References and further resources

Vascular Surgery GIRFT Programme National Specialty Report (March 2018)
A Best Practice Clinical Care Pathway for Peripheral Arterial Disease, Vascular Society of Great Britain and Ireland (April 2019).

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