Risking Life and Limb

A review of the quality of the care provided to adults with acute limb ischaemia

RECOMMENDATION IMPLEMENTATION SUGGESTIONS

1 RECOMMENDATION IMPLEMENTATION SUGGESTIONS

FOR THE PUBLIC AND HEALTHCARE PROFESSIONALS

- A national campaign such as 'six hours to save a limb'

FOR PATIENTS AND THE PUBLIC

- Include symptoms of ALI in online patient information such as GP practice websites/NHS 111) and direct patients to their nearest vascular hub
- Information leaflet/infographic for patients who are at higher risk of ALI, including information on how to reduce risk and what to do if they experience symptoms of ALI

FOR HEALTHCARE PROFESSIONALS

- Red flags on primary care systems, recognising that ALI can 'mimic' deep vein thrombosis and stroke, that swelling may be a feature and that sensory-motor impairment is important
- Red flag for patients at higher risk, e.g. those with chronic limb-threatening ischaemia, atrial fibrillation, diabetes, or who smoke. They should be given advice on how to reduce their risk of ALI and told what they should do if they have symptoms
- A template could be produced to standardise the assessment of patients with possible peripheral arterial disease such as used in primary care Peripheral Artery Disease (PAD): Ardens EMIS Web
- See patients with symptoms of ALI for a face-to-face assessment
- All healthcare professionals, including ambulance staff, who triage/assess acute presentations need to be able to determine the severity of ALI, e.g. new numbness or paralysis of the limb, it is very severe, and the limb may be impossible to save if untreated within around six hours. The Rutherford classification could be used to aid this assessment and would support the communication of urgency.

2 RECOMMENDATION IMPLEMENTATION SUGGESTIONS

- Use ambulance bypass protocols to expedite time to treatment
- Use theatre booking systems and coordinators to access emergency theatres
- Record and audit time from symptoms to procedure (if needed)
- Learn from patient safety incidents related to ALI, fasciotomies, amputations and related deaths.

3 RECOMMENDATION IMPLEMENTATION SUGGESTIONS

- Establishing a collaborative network similar to the UK national trauma networks would cover the pathway from primary care to spoke hospital to vascular hub and repatriation
  - Maintaining adequate service provision
  - Having a local repatriation guideline so that patients can be moved closer to their families and ensuring the best use of resources at the hub
- Using the Rutherford classification would support communication of urgency
- Telemedicine could be used for remote assessment by video consultation, or using video and photos of the limb to aid communication between vascular hubs and spoke hospitals, once the patient has had an in person review
- Share electronic patient records and images between hub and spoke care providers in the network
- Consider when to involve the palliative care team and at which location
- Enhance collaboration between vascular surgery and interventional radiology to optimise the use of expertise, workforce and facilities
- Senior members of the vascular surgery team and interventional radiology should review imaging and agree on the management plan
- Include vascular anaesthetic involvement when necessary and acute pain team referral when necessary
- Establish performance indicators once local pathways have been introduced and audit compliance against them
- Regular mortality and morbidity meetings should be encouraged to share learning
- Learn from patient safety incidents related to ALI, fasciotomies, amputations and related deaths.

4 RECOMMENDATION IMPLEMENTATION SUGGESTIONS

THE GUIDELINE COULD INCLUDE

- Core components of pathways for different specialties
- The initial assessment/treatment/referral
  - Protocol/standard operating procedure for primary care, ambulance and the emergency department -bypass protocols and pre-alerts
  - Use of the Rutherford classification to standardise the description of severity in appropriate settings, noting that not every patient has all '6Ps'
  - Initial anticoagulation protocol

Transfer to the vascular hub:

- Shared electronic patient records/imaging access
- Palliative care
- Treatment pathway in the vascular hub
  - Assessment and pain control (acute pain team may be required)
  - Use of the Rutherford classification
  - Evidence of better clinical performance where ALI care pathways are used
  - Senior vascular surgical (decision-maker) review
  - Frequent limb condition re-assessment pre, during and post treatment
  - Treatment planning between senior vascular surgery, interventional radiology, vascular anaesthesia and decision-makers to agree a revascularisation plan, with minimal delay (prioritisation processes)
- Core components of the discharge planning process
- Monitoring of audit, quality improvement and performance should include National Vascular Registry reporting in quarterly and annual reports and inclusion in the NCIP dashboards and GIRFT metrics
- Patients should be facilitated and supported in participating in ALI research.

5 RECOMMENDATION IMPLEMENTATION SUGGESTIONS

- Fund the addition of acute limb ischaemia to the National Vascular Registry
- Align the data collection with the International Consortium of Vascular Registries (ICVR) recommended data set, to ensure capture of:
  - Causes of ALI (atrial fibrillation, cancer, insitu thrombus, etc.)
  - Duration of ischaemia
  - Rutherford grade
  - Presentation to spoke hospital or vascular hub
  - Transfer times
  - Times from symptom to operation/intervention,
  - Type of intervention, use of modern techniques/new devices such as thrombectomy or clot retrieval
  - Use of anticoagulation
  - Requirement for fasciotomy
  - Postoperative outcomes such as amputation and or death
  - Limb preservation
  - Postoperative anticoagulation regimens
  - Ethnicity
  - Alcohol consumption
  - Drug use
  - Use of vapes/electronic tobacco products
- Keep local records at vascular hubs and ideally at spoke hospitals within the network of all patients with acute limb ischaemia
- Use the ICD11 code for ALI as soon as it becomes available
- Monitoring of audit, quality improvement and performance should include National Vascular Registry reporting in quarterly and annual reports and inclusion in the NCIP dashboards and GIRFT metrics
- Collect patient reported outcomes to assess the impact of interventions and their delivery on patients.