

**Vascular Society**  
**Resumption of less urgent and elective (endo-) vascular surgery**  
29<sup>th</sup> April 2020

**Background**

The COVID-19 (CV19) scenario is rapidly evolving, and the initial peak appears to have passed. There is now a markedly lower bed occupancy in many units, and the available theatre capacity is beginning to increase. These factors, combined with a build-up of postponed higher risk vascular cases means there is rightly a pressure/enthusiasm/need to resume less urgent and subsequently elective vascular surgery.

However, this needs to be tempered by a number of other factors related to social distancing and to patient's perspective of risks.

Differences remain across NHS England/NHS in devolved nations, and there may be a reluctance to have variable recommendations in place.

It would be prudent to observe a decrease in measured local CV19 incidence for at least 14 days before transitioning to provide surgical services for patients without immediately life- or limb-threatening conditions.

The ability to react to a second wave CV19 surge should be preserved.

**Advice**

The advice regarding the resumption of less urgent and elective vascular surgery is divided into two parts; **overriding principles** and **specific timelines** for intervention. The fluid nature of the CV pandemic may require review and revision of this guidance.

**Overriding Principles**

These are principles rather absolute recommendations; similar to the original Vascular Societies CV19 advice. <sup>A</sup> Units must interpret the general advice given to reflect their local situation. Shared decision making with patients, MDT working and documentation should recognise that *'time intervals may vary from usual practice and may possibly result in greater risk of an adverse outcome due to progression or worsening of the condition, but we have to work within the resources available locally and nationally during the crisis'* as stated in the NHS England guidance to surgical prioritisation during CV19. <sup>B</sup>

A. [https://www.vascularsociety.org.uk/\\_userfiles/pages/files/Newsletters/2020/Presidents%20update%2027\\_03\\_20.pdf](https://www.vascularsociety.org.uk/_userfiles/pages/files/Newsletters/2020/Presidents%20update%2027_03_20.pdf)

B. <https://www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/03/C0221-specialtyguide-surgical-prioritisation-v1.pdf>

## **Key factors to consider**

### **1. *The patient and the clinical need for intervention***

Risk benefit of surgery e.g. AAA diameter

Cardio-respiratory fitness and other co-morbidities

Possibility of an endovascular option

Consent in a CV19 world

Clinical risk assessment for CV19 - Pre-op negative CV19 swab(s), ideally taken  $\leq 48$  hours pre-op, and consider in addition CT lungs for major or lengthy procedures

### **2. *The unit's standard functioning for vascular and endovascular surgery***

Medical, nursing, scientist and allied healthcare professional workforce in pre-operative, surgical, anaesthetic, interventional radiology, critical care and ward areas.

Functioning MDT (face to face or online)

Case scheduling/waiting list management- slower turnover of patients

Robust clinical governance (see section 8.)

### **3. *The unit situation in terms of the prevalence of CV19***

Supply chain issues (i.e. PPE/surgical/anaesthetic -including drugs/IR stock)

Adequate critical care capacity

Ability to isolate non-CV19 patients and return to normal specialty (vascular) ward circumstances

End of re-deployment of staff to other areas

Staff testing for CV19

### **4. *Mitigation against the risk of hospital acquired CV19***

In most areas of the UK and Ireland it is anticipated that a single unit model will apply; this ensures standards of care deviate as little as possible from POVS. <sup>c</sup>

*In areas where a second unit model is developed, a second surgeon (and interventional radiologist when appropriate) must be assigned responsibility for vascular inpatients from the surgeon/IR providing cover at the network's arterial centre.*

Appropriate arrangements should be in place for management of complications, critical care and endovascular bail-out etc

Further CT imaging may be indicated when there is a significant delay to endo/open surgery

#### ***Single unit model***

'Red/Green' pathways; clean streams (green) of care (CV19-ve) from admission, through imaging (& endo- intervention), surgery, immediate post-op (recovery, ITU, ECU), ward to post-op care and follow up

Specialist input into inpatient care even when 'cohorted' in a CV19 clean or green area

#### ***Second unit model***

Use of a second CV19 free or green unit such as a second NHS unit or private hospital

Appropriate level of expertise, infrastructure (i.e. IR facilities) and cover

Appropriate level of staffing

Appropriate clinical governance arrangements (section 8.)

**C.** <https://www.vascularsociety.org.uk/userfiles/pages/files/Document%20Library/VS%202018%20Final.pdf>

## *5. Workforce issues*

*In response to CV19 surge* both consultant and trainees in many units are working significantly more intense rotas. Some medical staff have been covering sick, self-isolated or shielded colleagues. Most Trusts have temporarily suspended study and in some cases annual leave. Most vascular activity is either mostly or entirely consultant led/delivered.

Thoughts re-the physical and mental health and resilience of both individuals and teams need to be considered before and during resumption of less urgent activity. Short term variants in clinical practice were essential. However, if the change in working practice is likely to be sustained, plans need to include how we look after the entire vascular workforce, not forgetting our trainees, nurses and vascular scientists.

## *6. Training*

Resumption of less urgent and elective vascular surgery, with the freeing up of vascular juniors from CV19 related non-speciality commitments, would allow resumption of surgical training. Each trainee should have a supportive PDP to account for their training deficit due to COVID19, in line with the JCST statements on ARCP outcome 10.

## *7. Research*

Participation in COVID-19 related research and audit is encouraged (i.e. COVIDSURG, COVER). These studies will provide important lessons from patient management during the CV19 pandemic.

## *8. Clinical governance*

Enhanced clinical governance procedures will need to be in place during the recovery phase from CV19. This should include vascular anaesthetic and critical care input. National Vascular Database (NVR) submissions should include completion of the newly introduced fields to document any impact to patient care from COVID-19. The risks associated with CV19 must be documented on Directorate and Trust risk registers (i.e. deferments of treatment, risk cross-infection, workforce changes).

Where there are significant deviations from usual practice, discussion within an MDT or with a second consultant is advised. This reasoning should be clearly documented in the notes.

Where 'second centres' are used for activity clinical governance must be in place, includes reporting of outcomes to the NVR.

## *9. Innovative working practices*

There will be an ongoing need to continuing to work in innovative manners, building on the digital technology and new practices that we are embracing. This includes virtual clinics, MDTs, and WhatsApp working groups.

## Timelines for Urgent Care for Vascular Disease in the recovery phase of the CV19 pandemic

NHS England, with the support of the surgical colleges, has produced a clinical guide to surgical prioritisation with Classification into 4 groups for vascular procedures is shown below

<b>Level 1a</b>	<p><b>Emergency operation needed within 24 hours</b></p> <ul style="list-style-type: none"> <li>• Vascular injury/ occlusion (Limb - including compartment syndrome and mesenteric - GIT)</li> <li>• Uncontrolled external haemorrhage - any site/source</li> <li>• Ruptured AAA</li> <li>• Thrombolysis</li> </ul>
<b>Level 1b</b>	<p><b>Urgent operation needed within 72 hours</b></p> <ul style="list-style-type: none"> <li>• Acute on chronic limb ischaemia</li> <li>• Symptomatic carotid disease</li> <li>• Amputation for limb ischaemia</li> <li>• DVT thrombolysis for phlegmasia or end organ failure (renal/hepatic)</li> </ul>
<b>Level 2</b>	<p><b>Surgery that can be deferred for up to 4 weeks</b></p> <ul style="list-style-type: none"> <li>• Chronic severe limb ischaemia - no neurology</li> <li>• AAA &gt; 7cms diameter</li> </ul>
<b>Level 3</b>	<p><b>Surgery that can usually be delayed for up to 3 months</b></p> <ul style="list-style-type: none"> <li>• AAA &gt; 5.5cm and &lt; 7cm in diameter</li> </ul>
<b>Level 4</b>	<p><b>Surgery that can usually be delayed for more than 3 months</b></p> <ul style="list-style-type: none"> <li>• Vein surgery</li> <li>• AVMs without complications</li> <li>• Thoracic outlet syndrome</li> <li>• Claudication</li> </ul>

Timelines differ for Level 1b, 2 and 3 from Vascular Society Provision of Vascular Services 2018 recommendations. <sup>c</sup> The following advice is provided to units in respect of this:

### **Abdominal Aortic Aneurysm**

*POVS 2018:* Asymptomatic large abdominal aortic aneurysms should be treated within 8 weeks of diagnostic confirmation, in both screened and unscreened patients.

**NHSE CV19 Priority L2 (<= 4 weeks) for AAA>7cm, L3 (<= 12 weeks) for AAA 5.5-6.9cm**

VS advice is that an extension to 3 months for AAA diameter 5.5-5.9cm is an acceptable response to CV19; not least as in the 2019 NVR report a significant proportion of patients with large AAA waited more than 12 weeks for surgery.

### **Carotid endarterectomy for symptomatic disease**

*POVS 2018:* Carotid endarterectomy for symptomatic patients should be performed within 7 days from referral.

**NHSE CV19 Priority L1b (<=72 hours)**

VS advice is that units should continue to treat symptomatic patients urgently. It has been noted that some patients are choosing medical therapy over surgery.

*Shared decision making regarding risks of stroke/TIA with and without surgery should be discussed, recorded and MDT ratified in such cases.*

### Critical limb ischaemia

Timelines for management of critical limb ischaemia in POVS 2018 have been superseded by the introduction of the peripheral arterial disease quality improvement framework (QIF).<sup>D</sup> It is recommended that the QIF 'admitted patient pathway', recommending revascularisation within 5 days, is prioritised as [NHSE CV19 Priority Level 1b \(acute on chronic\)](#). Amputation for limb ischaemia is similarly prioritised as [NHSE CV19 Level 1b](#).

VS advice is that without urgent intervention these patients are likely to have worse outcomes. The balance of decision making regarding intervention may favour endovascular intervention to minimise hospital stay and need for a prolonged recovery period, accepting that this will vary unit to unit based on local resources and facilities.

Recommended timelines for 'admitted pathway' for CLI <sup>D</sup> - rapid progression, deep tissue injury and/or infection, and/or uncontrolled pain	
Time to admission	< 48 hours from decision to admit/ transfer
Consultant review	< 12 hours from urgent admission < 24 hours from elective admission
Investigation for revascularisation	< 48 hours from admission
Primary revascularisation procedure	<5 days

Patients presenting with a stable manifestation of CLI are prioritised as [NHSE CV19 Priority Level 2](#) (Chronic severe limb ischaemia - no neurology; deferred for up to 4 weeks).

VS advice is that when a decision is made to defer intervention this should be a shared decision, clearly recorded and MDT ratified. People with CLI and diabetes are especially vulnerable during CV19. Where possible, 'hot clinics' to minimise emergency department attendance should be kept open, alongside networked hospitals diabetic foot services.

Maintaining open communication with network clinicians, practice nurses and podiatrists is essential. Ideally units should offer non face to face consultation (i.e. Attendanywhere<sup>®</sup>).

Recommended timelines for 'non-admitted pathway' for CLI <sup>D</sup> - ulcer, minor necrosis, mummified toes, superficial infection or controlled pain	
Vascular surgeon 'face to face review'	<= 7 days
Cross-sectional imaging	<= 7 days
Revascularisation	<= 14 days

Recommended timelines for the amputation pathway <sup>C</sup> - when differs from CLI admitted pathway	
Diabetic review	< 12 hours from admission
Pain team review	< 12 hours from admission
Procedure	< 48 hours from decision to amputate

D. [https://www.vascularsociety.org.uk/\\_userfiles/pages/files/Document%20Library/PAD%20QIF%20March%202019%20v2.pdf](https://www.vascularsociety.org.uk/_userfiles/pages/files/Document%20Library/PAD%20QIF%20March%202019%20v2.pdf)