

Memorandum

SUBJECT: CorHealth COVID-19 Vascular Memo #2 – **RECOMMENDATIONS FOR AN ONTARIO APPROACH TO PRIORITIZATION OF VASCULAR SURGICAL AND ENDOVASCULAR PROCEDURES IN RESPONSE TO PHASES OF COVID-19**

TO: Vascular Stakeholders
FROM: Office of the CEO, CorHealth Ontario
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DISCLAIMER: The information in this document represents general guidance based on current practice and available evidence. The document was developed by provincial clinical experts, reflecting best knowledge at the time of writing, and is subject to revision based on changing conditions and new evidence. This information is intended to be “guidance rather than directive,” and is not meant to replace clinical judgment, regulatory body requirements, organizational, or hospital policies. Reference to Infection Prevention and Control (IPAC) or Personal Protective Equipment (PPE) in this document should not replace or supersede the IPAC and PPE protocols or directives in place at your hospital.

Recommendations for an Ontario Approach to Prioritization of Vascular Surgical and Endovascular Procedures in Response to Phases of COVID-19

PREAMBLE

COVID-19 is an unprecedented crisis and poses a significant risk to the community as the landscape is rapidly evolving. The Ministry of Health requested on March 15, 2020 that all hospitals modify the use of hospital resources in anticipation of increased need by COVID-19 infected patients. In response to the anticipated demand on hospital resources, hospitals reduced non-emergent surgical cases and other non-emergent clinical activity. CorHealth Ontario has worked with vascular experts and stakeholders across the province to discuss how best to preserve care capacity for those vascular patients in greatest need, while we gradually restore health care capacity in the context of COVID-19. The following guidance and recommendations reflect advice from this engagement. These principles may be used in addressing future changes in COVID-19 volume if it fluctuates.

PURPOSE

The recommendations herein were developed in the context of anticipated oscillations in the number of COVID-19 infected patients requiring hospital care over the coming months, to guide hospitals and physicians for prioritization of patients receiving vascular surgical or endovascular procedures.

GUIDING PRINCIPLES

1. Keeping front line health care providers healthy and patients protected is vital.
2. Minimizing the impact of COVID-19 on the mortality and morbidity of patients with Vascular disease is a priority.
3. Aligning with province- and hospital-specific infection prevention and control policies and protocols is important.
4. Promoting clinical activities aimed at preserving hospital resources (i.e. health care human resources, personal protective equipment, procedure rooms, inpatient beds, Intensive Care Units, Emergency Departments) is a priority.

CorHealth Ontario, in consultation with key stakeholders, is making recommendations for the management of patients receiving vascular surgical and endovascular procedures for the treatment of arterial and venous

vascular disease and supportive treatment of patients with renal disease in response to phases of the COVID-19 pandemic.

The provision of quality care and timely intervention for their patients is a goal shared by all physicians. For vascular specialists, access to sufficient resources to provide prompt and appropriate surgical or endovascular treatment is essential. A substantial number of vascular interventions in the province are emergent, urgent or expedited elective procedures performed to prevent death or significant morbidity such as limb loss or disabling stroke. In addition, vascular specialists play a critical collaborative role with many other specialties, including but not limited to the creation and maintenance of vascular access for hemodialysis, vascular repair or reconstructions for trauma, transplantation and or oncologic procedures, and combined interventions for complex or complicated cardiac procedures. The nature of vascular disease and the potential harm that could result from delays in treatment must always be recognized and especially considered in times of restricted or limited resources. These recommendations were developed to provide guidance to hospitals and physicians who are caring for vascular patients in very challenging times.

PART 1: DECISION-MAKING TO SUPPORT ESSENTIAL VASCULAR SURGERY AND ENDOVASCULAR SERVICES

- 1.1 In the context of the COVID-19 pandemic, medically necessary, time-sensitive vascular surgery and endovascular procedures should be considered based on the patient's clinical status and risk factor profile, and on the available resources and capacity at the treating hospital, given that capacity during COVID-19 is dynamic and multi-factorial (e.g. human resources, PPE, medications, bed availability).
- 1.2 Hospital capacity, in the context of COVID-19 will vary over time and across regions. Acknowledging this variation, hospitals should consider strategies to preserve resources (e.g. OR, ICU beds, etc.) required for time sensitive vascular and other surgical and medical services, with frequent review of this strategy as health system circumstances change.
- 1.3 safety of medical personnel while maintaining appropriate allocation of PPE may require a strategy of extensive pre-op testing and risk stratification of vascular patients. Additional guidance is found in the [Ministry of Health COVID-19 Provincial Testing Guidance Update April 15, 2020](#).
- 1.4 Vascular services require coordinated access to diagnostic imaging which is vital for timely quality care. These resources must be available to meet the need of vascular services.
- 1.5 In cases where there is clinical equipoise between an open surgical approach or an endovascular approach (e.g. open aortic aneurysm repair or EVAR), a less invasive approach with a shorter total and ICU length of hospitalization may be the preferred choice of therapy if hospital resources are being challenged by COVID-19 or other patients.
- 1.6 Regular and timely sharing between hospital vascular programs of information, experiences and learnings related to patient care and practice changes in the context of COVID-19 will support vascular stakeholders in Ontario. CorHealth Vascular COVID-19 Forum meetings provide one mechanism for regular information sharing across the vascular community.

PART 2: WAITLIST MANAGEMENT

- 2.1 Hospitals will have in place a process that includes assigning accountability for the active management of the vascular procedure waitlist(s). Mechanisms include ongoing review of patient priority, as well as the assessment of the centres' ability to provide vascular surgical and endovascular services during the COVID-19 pandemic.
- 2.2 To support waitlist prioritization decisions, guidance is provided in appendix 1 of this memo. Vascular conditions addressed in Appendix 1 apply to both inpatients and outpatients requiring vascular care. In general, patient urgency hierarchy is suggested as: emergent (priority A) > urgent – inpatients (priority B) > urgent – outpatients (priority B) > booked outpatients (priority C-E); however, booked outpatients who have had an extended wait time require special consideration for prioritization of their procedure. Priority level time-to-treat recommendations are: Priority A (<24 hours), Priority B (<2 weeks), Priority C (2-4 weeks), Priority D (4-8 weeks), Priority E (≥8 weeks).
- 2.3 Considering regional variation of COVID-19 prevalence and hospital capacity, vascular programs and providers should emphasize collaborative efforts between hospitals to address waitlists and resource constraints to ensure continued access to vascular care.
- 2.4 Vascular specialists should consider a consistent approach to documenting patient triage decision-making. In addition to documenting all triage decisions in a patient's medical record (i.e. the standard of care), teams may consider using additional decision documentation tools. A sample case review documentation template (created by CorHealth Ontario, Appendix 2), can be utilized or adapted by care providers and teams.

PART 3: OTHER CONSIDERATIONS

- 3.1 To minimize the exposure to COVID-19, vascular specialists should consider the use of virtual care tools and resources (e.g. OTN, telephone) to assess new referrals, review patients on the waitlist and conduct follow-up assessments.

Appendix 1

DISCLAIMER: The information in this document provides guidance to vascular specialists and administrators for prioritization of patients receiving vascular surgical or endovascular procedures during the unprecedented period that hospitals and providers are facing in the context of the COVID-19 pandemic. The document was developed by provincial vascular clinical experts and reflected best knowledge and consensus at the time of writing. This information is intended to be “guidance rather than directive,” and is not meant to replace clinical judgment. In the context of the COVID-19 pandemic, medically necessary, time-sensitive vascular surgery and endovascular procedures should be considered based on the patient’s clinical status and risk factor profile, and on the available resources and capacity at the treating hospital. The vascular condition priority list can be considered for use during periods of increase or decrease in hospital procedural activity necessitated by fluctuations in COVID-19 infected patient volumes.

PRIORITY	TIME TO TREAT
A	<24 hours (Emergent)
B	< 2 weeks
C	2-4 weeks
D	4- 8 weeks
E	≥8 weeks

VASCULAR CONDITION	PRIORITY
ANEURYSM	
Note: AAA below include fusiform aneurysms. Saccular, or rapidly expanding AAA require individual clinical assessment for surgical acuity due to higher rupture risk.	
AAA ruptured	A
AAA symptomatic	A
Infected prosthetic graft removal and revascularization	B
AAA Men >7cm, Women >6.5cm	B
AAA Men 6-7cm, Women 5.5-6.5cm	C
AAA Men 5.5-6.0cm, Women 5.0-5.5cm	E
TAAA >7cm	C
TAAA 6-7cm	D
AORTIC DISSECTION	
Type B dissection with malperfusion/ rupture	A
Type B dissection with high risk features	D
CAROTID STENOSIS	
Carotid symptomatic (CEA or CAS)	B
Carotid asymptomatic >80 (CEA or CAS)	E
PERIPHERAL ARTERY DISEASE	
Acute limb ischemia	A
Arterial lysis for graft or artery	A
Lower extremity gangrene/ulcer	B
Lower extremity rest pain	B
Infected prosthetic graft removal and revascularization	B
Severe re-stenosis of previous graft (revision of failing graft)	B
Femoral or popliteal aneurysm, symptomatic or with high-risk features	B
Femoral or popliteal aneurysm, asymptomatic	E

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Claudication	E
AV ACCESS	
Fistula/ graft thrombectomy	A
Fistula revision for malfunction/steal	B
Fistula revision for ulceration/pseudoaneurysm	B
Fistula creation, on HD	D
Endovascular fistula creation	D
Fistula creation, not on HD	E
DEBRIDEMENT AND AMPUTATION	
Septic extremity - debridement or amputation	A
Non-septic extremity - debridement or amputation	B
VISCERAL ISCHEMIA	
Acute mesenteric ischemia	A
Chronic mesenteric ischemia	B
Renal angioplasty with symptomatic hypertension/worsening renal dysfunction or flash pulmonary edema	B
THORACIC OUTLET SYNDROME	
Thoracic outlet syndrome, arterial with thrombosis	A
Thoracic outlet syndrome, venous with thrombosis	B
Thoracic outlet syndrome, neurogenic	E
Thoracic outlet syndrome, venous otherwise	E
VENOUS	
IVC filter placement	A
Lysis for DVT	A
Stripping for ulcers or uncomplicated varicose vein procedures	D

Appendix 2

Sample Case Review Template:

Disclaimer: This template does not replace routine documentation of patient care decisions in a patient's medical record.

Date:			
Time:			
Patient Name:			
Patient Location:			
Acute ICU/CCU Bed	Acute Ward Bed	Home	Other: _____
Service Required			
Open Aortic Repair	EVAR	CEA	CAS
Bypass	Angioplasty	Amputation (major)	Amputation (minor)
Fistula	Vein Stripping	Other Service: _____	
Case Urgency Details:			
Decision			
___: Rationale to proceed (comments)			
___: Rationale to defer at this time (comments)			
<u>Case re-evaluation date/time:</u>			