



Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

*Rebecka Hultgren, MD, PhD*

Department of Vascular Surgery  
Karolinska University Hospital and Karolinska Institutet  
Stockholm, Sweden

*Jason Chuen, MBBS, PGDipSurgAnat, FRACS (Vasc), MPH*

Department of Vascular Surgery  
Austin Health  
University of Melbourne  
Melbourne, Victoria, Australia

*Edoardo Galeazzi, MD*

Treviso Regional Hospital  
Santa Maria dei Battuti  
Treviso, Italy

*Max Wohlaue, MD, RPVI*

Division of Vascular Surgery  
University of Colorado  
Aurora, Colo

## REFERENCES

1. National Institutes of Health. Coronavirus disease 19 (COVID-19). Available at: <https://www.nih.gov/health-information/coronavirus>. Accessed April 9, 2020.
2. Worldometer. COVID-19 coronavirus pandemic. Available at: <https://www.worldometers.info/coronavirus/>. Accessed April 9, 2020.
3. American College of Surgeons. COVID-19: recommendations for management of elective surgical procedures. Available at: <https://www.facs.org/about-acsc/covid-19/information-for-surgeons/elective-surgery>. Accessed April 6, 2020.
4. American College of Surgeons. COVID-19 guidelines for triage of vascular surgery patients. Available at: <https://www.facs.org/covid-19/clinical-guidance/elective-case/vascular-surgery>. Accessed April 6, 2020.

<https://doi.org/10.1016/j.jvs.2020.04.463>

## Reply



The Vascular Low Frequency Disease Consortium (VLFDC) has partnered with the Vascular Surgery COVID-19 Collaborative (VASCC) to build a platform for international, multi-institution investigation of the implementation of central venous access line teams during the COVID-19 pandemic.<sup>1</sup> Sixty hospitals in 13 countries and 37 states participated in the study. Like the VLFDC, the VASCC aims to be inclusive and collaborative with all participants worldwide. The VLFDC has shared their structure in detail with the VASCC to include the steering committee, deidentified web-based data collection, the opportunity for all participants to have authorship on resulting manuscripts, and the invitation to all participants to submit project proposals and spearhead project execution in partnership with VLFDC leadership.<sup>2</sup>

Work is currently under way to adapt VLFDC processes and documentation to the VASCC.<sup>3</sup> A primary objective

of the VLFDC structure is to make participation as straightforward as possible. A template protocol for Institutional Review Board submission that will serve as the umbrella approval for all VLFDC-related projects is distributed to participants along with detailed data dictionaries and every effort is made to limit data entry for each project to 20 minutes. Participants can choose to submit data for as many or as few projects as they are interested in. Projects that are currently being developed by VASCC address the issue of the impact of rescheduling of elective vascular operations and procedures and the vascular complications of COVID-19. Like the VLFDC, VASCC participants will be encouraged to submit additional project proposals.

The vascular surgery community has already expressed an outpouring of desire to collaborate to examine the impact of COVID-19 on vascular disease, to document the vascular surgeon's response to the pandemic, and to create valuable resources that can be used now and in future public health emergencies. We are confident that by modeling the VASCC after the VLFDC, the VASCC will serve as a mechanism for vascular surgeons worldwide to come together to accomplish these goals.

*Karen Woo, MD*

Division of Vascular Surgery  
Department of Surgery  
University of California, Los Angeles  
Los Angeles, Calif

## REFERENCES

1. Mouawad NJ, Cuff RF, Hultgren R, Chuen J, Galeazzi E, Wohlaue M. The Vascular Surgery COVID-19 Collaborative (VASCC). *J Vasc Surg* 2020;72:379-80.
2. Lawrence PF, Baril DT, Woo K. Investigating uncommon vascular diseases using the Vascular Low Frequency Disease Consortium [published online ahead of print January 18, 2020]. *J Vasc Surg* doi: [10.1016/j.jvs.2019.11.029](https://doi.org/10.1016/j.jvs.2019.11.029).
3. Vascular Low Frequency Disease Consortium (VLFDC). Available at: <http://surgery.ucla.edu/vlfdc>. Accessed April 14, 2020.

<https://doi.org/10.1016/j.jvs.2020.04.465>

## The impact of COVID-19 on vascular training



The global impact of COVID-19 has affected everyone, including healthcare providers caring for the surge in critically ill patients.<sup>1,2</sup> Vascular interventionists have always been involved with direct patient care. The effect has been compounded for teaching physicians and vascular trainees.<sup>3,4</sup> The rotations for many third- and fourth-year medical students have been suspended, often because of a shortage of medical supplies. New quarantine policies have limited surgeries to urgent and emergent cases.<sup>5</sup> However, students could perform