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.

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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.[1] 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.[2]

Work is currently under way to adapt VLFDC processes and documentation to the VASCC.[3] 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.

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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.[1,2] Vascular interventionists have always been involved with direct patient care. The effect has been compounded for teaching physicians and vascular trainees.[3,4] 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.[5] However, students could perform

other medically related tasks such as triage or patient assessments to free up clinicians' time or could possibly assist in some administrative tasks. Final semester students could help create surge capacity.[6] Education conferences have been conducted virtually at the institutional and regional levels.

Virtual clinic visits have been used to reach out to desperate patients.[7-9] Many institutions have been teaching their vascular fellows and residents about ventilators, respiratory therapy, intubations, and triaging patients. They can also perform many bedside procedures for critically ill patients such as placement of central intravenous catheters and temporary vascular access. The Society for Vascular Surgery recently published new regulations for vascular trainees, which includes accepting 44 weeks of clinical time, including any nonvoluntary time for the 2019-2020 academic year without preapproval, and a 10% decrease in the total number of reported cases. Nonvoluntary time off used for clinical or education purposes can be counted as clinical time. Trainees are learning about "check-ins" and "E-visits," with the newly introduced Healthcare Common Procedure Coding System codes G2010 and G2012 and about remote patient monitoring services such as a patient's oxygen saturation levels using pulse oximetry (Current Procedural Terminology codes 99091, 99457-99458, 99473-99474, 99493-99494). Medicare physician supervision no longer requires direct physician supervision for outpatient or critical cases. However, team segregation policies to limit the risk of intercircle cross-contamination is extremely important, as is complying with the new Medicare telehealth update (ie, available at: https://www.cms.gov/Medicare/Medicare-General-Information/Telehealth/Telehealth-Codes).

In conclusion, the COVID-19 pandemic has posed unprecedented challenges to our healthcare system. Although we are often restricted by the aspects of accreditation, the pandemic has opened the door for many potential areas of training. The main goal is to manage the surge, but maintain patient and provider safety.

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An addition to the systematic review of simulation in open abdominal aortic aneurysm repair

We read with interest the article by Maguire et al[1] and commend their efforts to systematically review the literature on simulation-based training in open abdominal aortic aneurysm (AAA) repair. This topic has gained further relevance as the need to train for open AAA repair in a simulation-based environment was highly prioritized in a recent European needs assessment supported by the European Society for Vascular Surgery.[2] As researchers in vascular surgery and medical education, we welcome studies such as this in which alternative educational methods are explored to safeguard our patients.

With the decreasing number of open aortic repairs, simulation-based training including continuous assessment of competence is essential. How do we ensure that our trainees achieve the basic competence needed to perform open AAA repair before they go on to the clinical environment? The authors concluded that there are